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NNPC/SNEPCo Scholarship

Past Questions and Answers



Introduction:

Verbal Section.....

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Verbal Section: Reading Comprehension Questions

Read the following passage carefully and answer the questions given below by choosing the most appropriate options of all.

Time management refers to a set of skills, principles, tools, and practices that work together and assist you in getting more value out of your time and improve the way you live your life. Time management also refers to the different ways that are used for planning and exercising proper control over the amount of time that is spent on number of activities with the aim of increasing efficiency, effectiveness, performance and productivity.

Time management does not necessarily mean that you **should do** more work in less time; rather it means how much of the important work you get done in the time that you have. There are a number of techniques that you can use for managing time while performing tasks within the specified intervals of time.

The steps that you can follow for achieving proper time management include writing down the tasks that you have to perform, prioritizing [the list](#) of tasks, planning your work according to your time schedule. You must always think properly before initiating with any project or work. [This will](#) greatly help you in avoiding wastage of time on unnecessary things. Find out the resources that can help you to fulfill the task in less time and more effectively.

There was a time management categorization scheme that was introduced by Stephen R. Covey for categorizing the hundreds of approaches that were used for time management from one generation to other. This categorization scheme is explained as follows:

The first generation approaches consisted of the watch and clock based reminders, which were used to alert people about the time when a task is to be done.

The second generation approaches consisted of the use of calendar and notepads for scheduling the appointments as well as planning and preparing for the work. Setting of goals was also included in this approach.

The third generation time management activities included planning and prioritizing of the tasks to have a control over them. These activities were carried out with the help of gadgets such as computers or PDA-based systems. Personal organizers and paper based objects were also used for prioritizing work activities daily.

The fourth generation time management approaches favored importance as compared to the urgency. Here, the duties that were more important were performed first instead of those that were very urgent but not important.

All you need is dedication and practice in order to master the art of time management.

Questions:

1. **Who introduced the time management categorization scheme for categorizing the hundreds of approaches that were used for time management?**
 - a. Stephen R. Covey
 - b. Albert Einstein
 - c. Graham Bell
 - d. Isaac Newton
 - e. None of the above

Correct answer: a

2. **The fourth generation time management approaches were based on which of the following principle?**
 - a. Alarm clocks
 - b. Computers and PDA based systems

- c. [Appointment books](#) and personal organizers
- d. Importance over urgency
- e. All of the above

Correct answer: d

3. **Which of the following scheme used watch and clock based reminders for time management?**
- a. First generation
 - b. Second generation
 - c. Third generation
 - d. Fourth generation
 - e. Fifth generation

Correct answer: a

4. **Fill in the blank by choosing the most appropriate option of the following choices.**

Time management does not necessarily mean that you should do _____?

- a. less work in less time
- b. less work in more time
- c. more work in less time
- d. more work in more time
- e. none of the above

Correct answer: c

5. **What are the qualities required in order to master the art of time management?**
- a. Dedication
 - b. Practice
 - c. Independence
 - d. Both a and b
 - e. Both b and c

Correct answer: d

Verbal Section : Reading Comprehension Questions

Read the passage properly and then choose the best option to answer the questions based on the information contained in the passage.

The term Ice cream has been derived from the term iced cream or cream ice. Ice-cream is basically a frozen dessert that is usually prepared from dairy products. The major dairy products used for making ice cream are milk and cream. These products along with other products such as fruits, various essence and other flavors are used to make ice creams having different flavors and tastes. Nuts such as almonds, cashew nuts, hazelnuts and walnuts are popularly used for adding a different and rich flavor to the ice cream.

Though major varieties of ice creams are made using sugar; some of them also contain sweeteners for giving a sweet taste to the ice cream. In [addition](#) to the natural ingredients artificial flavors and colors can also be used for making different types of ice creams.

First of all, you slowly stir the mixture of the ingredients of your choice while cooling it. This is done to prevent the formation of large crystals of ice in the ice cream and incorporate air in to the mixture. The outcome of this procedure is smooth textured foam which is in a semi-solid state. You can scoop this foam as it is malleable.

The phrase "ice cream" has different meanings at different places. For instance, "frozen custard", "sorbet", "gelato", "frozen yogurt" and many other phrases are used to differentiate the different varieties and styles of ice creams at different places all over the world. Also, the commercial use of the phrase "ice cream" depends on the [relative](#) quantities of the main ingredients used for making the same. In countries, such as the [United States of America](#), the phrase "ice cream" is applicable to some specific varieties only.

In countries, such as Argentina Italy and, you can use it for all the variants of ice creams. For those people who are allergic to dairy protein or have some other medical constraints, there are ice creams made from dairy alternatives which include milk of goat's or sheep's or even milk substitutes.

Vanilla and chocolate are some of the most popular and most demanded flavors of ice cream all over the world.

The first ice cream made was a combination of snow, nectar, fruit pulp and honey. The credit for this type of ice cream was given to Emperor Nero of Rome. He sent this frozen dessert to his slaves into the mountains to get back.

Governor Bladen of Maryland then served ice cream to his guests in the year 1700. In 1776, the first ice cream parlor was opened in America in the New York City. Jacob Fussell established the first commercial ice cream plant in Baltimore in 1851.

Questions:

1. **What are the major dairy products used for making ice creams?** a.

- Milk
- b. Cream
- c. Nuts
- d. Both a and b
- e. None of the above

Correct answer: d

2. **Who served ice cream to his guests in the year 1700?**

- a. Governor Bladen of Maryland
- b. Jacob Fussell
- c. Emperor Nero of Rome
- d. Nancy Johnson
- e. Robert M. Green

Correct answer: a

3. **The first ice cream made was a combination of snow, nectar, fruit pulp and _____?**

- a. Chocolates
- b. Nuts
- c. Honey
- d. Almonds
- e. Vanilla

Correct answer: c

4. **The first ice cream parlor was opened in America in the New York City in which year?**

- a. 1700
- b. 1776
- c. 1843
- d. 1904
- e. 1847

Correct answer: b

5. **Jacob Fussell established the first commercial ice cream plant in which city?**

- a. New York city
- b. Argentina
- c. America
- d. Italy
- e. Baltimore

Correct answer: e

Verbal Section : Reading Comprehension Questions

Read the following passage carefully and answer the questions by selecting the most appropriate option of the choices given below each question.

The real name of Birbal was Maheshdas Bhatt. He took **birth in** a Brahmin family in the year 1528 in Ghoghara, Sidhi district of **Madhya Pradesh**, India. Maheshdas was the third child of Gangadas and Anabhadevi. He lost his father Gangadas, at a very young age. Since, then he resided with his grandfather Rupdhar, who resided in the city called as Patrapunj. His grandfather Rupdhar was a great Sanskrit scholar.

Rupdhar started with the education of Maheshdas at a young age of 5. He taught him Hindi, Sanskrit and Persian which was the state language then. Following the family tradition of **learning music** and poetry, he learned music and poetry as well. Soon he started writing his own poems and setting tunes to them. This made him as a famous poet, musician and a well known singer. In addition to all these qualities, he also had a great wit and very good sense of humor. He used to make a mark with his witty communication skills on anyone he met.

The kings and emperors in those days were very good admirers of art. When the king of Jaipur, Bhagawandas, heard about Maheshdas talent, he invited him with great honor to his own composition in the court of Jaipur. Maheshdas used to write poems under the stage name 'Brahm' and hence, he became well known as 'Brahmakavi'.

Following this, he was invited by Raja Ramachandra of Rewa at his court. When the emperor Akbar came to know about Maheshdas knowledge, intelligence and wisdom, he invited him to be a part of the royal court in the year 1556. Pleased with Maheshdas, Emperor Akbar bestowed upon him a new name – Birbal, where Bir means Brain and Bal means Strong. He was also conferred with the title of Raja by Emperor Akbar. Along with being a part of Akbar's inner council of nine advisors, known as the 'navaratna', a Sanskrit word meaning nine jewels, he was also one of the most trusted members of Emperor Akbar. Birbal worked with Akbar for a period of 30 years.

Maheshdas was not only good at poetry, singing and music; but he was also very expert in the art of warfare. Pleased with his participation in the mission of Sultanpur at Punjab, the Emperor not only conferred him with the title of Veervar but also gave him the Jagir of Nagarkoth.

You can find the collection of Birbal's writings in the Bharatpur museum located in the state of Rajasthan, India. It is said that, Birbal was found to death while heading a large military troupe during the mission of Afghanistan.

Questions:

1. **What was the real name of Birbal?**

- a. Akbar
- b. Ramachandra
- c. Maheshdas Bhatt
- d. Rupdhar
- e. Gangadas

Correct answer: c

2. **Maheshdas used to write poems under the pseudonym 'Brahm' and hence, he became well known by which name?**

- a. Veervar
- b. Birbal
- c. Brahmakavi
- d. Raja
- e. Jagatguru

Correct answer: c

3. **Where can you find the collection of Birbal's writings?**

- a. Sultanpur museum in Punjab
- b. Bharatpur museum in Rajasthan
- c. Sidhi district of Madhya Pradesh
- d. Patrapunj
- e. Rewa

Correct answer: b

4. **What was the name of the couple who gave birth to Birbal?**

- a. Gangadas and Anabhadevi
- b. Akbar
- c. Rupdhar
- d. Raja Ramachandra
- e. Bhagawandas

Correct answer: a

5. **Pleased with the participation of Maheshdas in the mission of Sultanpur at Punjab, the Emperor not only conferred him with the title of Veervar but also gave him _____?**

- a. Jagir of Nagarkoth
- b. Jagir of Sultanpur
- c. Jagir of Delhi

- d. Jagir of Jaipur
- e. Jagir of Punjab

Correct answer: a

Verbal Section : Reading Comprehension Questions

Read the passage and answer the following questions based on the passage by choosing the best option of the five options given for each question.

The development of computers in the 1950s led to the discovery of the Internet. The evolution of internet began with the point-to-point communication between the mainframe computers and other terminals in a small area. This plan then developed into the point-to-point connections between the computers in a wider area. The latest research then expanded into packet switching.

In the late 1960s and early 1970s, the packet switched networks such as ARPANET, CYCLADES, Merit Network, Mark I at NPL in the UK, Tymnet as well as Telenet, were developed with the help of a wide variety of protocols.

The development of the packet switched network ARPANET led to the **expansion** of protocols for internetworking. These protocols were used to merge multiple separate networks together, to form a network of networks.

In the year 1974, Arthur C Clarke described the future of omnipresent networked personal computers in an interview. In the year 1982 the standardization of the Internet Protocol Suite (TCP/IP) took place. This led to the introduction of the Internet which was a worldwide network of fully interconnected TCP/IP networks.

In the year 1981, when the National Science Foundation (NSF) developed the Computer Science Network (CSNET); and in the year 1986, when the NSFNET allowed the access from the educational and research centers in the US, the access to the protocol ARPANET was extended. Emerging of the ISP's i.e. the Internet Service Providers took place in the late 1980s and 1990s. But, in the year 1990, the ARPANET was removed from service.

The denial of NFSNET services led to the commercialization of the Internet in 1995 that allowed the Internet to carry the commercial traffic that was restricted till then. Since then, **the use of Internet** has strongly affected the cultural and commercial sectors. It led to the use of communication via (e mails) electronic mail, the (VoIP) i.e. **Voice over** Internet Protocol "phone calls", instant messaging as well as the synchronous video calls. The use of Internet led to the emerging of various social networking sites, forums, and blogs and also included the number of online shopping sites.

The development and use of the advanced networks such as Internet2, very high speed Backbone Network Service i.e. (vBNS) of the NSF's, and the National Lambda Rail is carried out by the educational and the research institutes. The use of fibre optic networks has enabled very high amounts of data transmission at very high speeds, since they can operate at the rate of 1-Gbit/s, 10-Gbit/s, or more. According to the estimations of 1993, it was observed that the Internet carried only 1% of all the two-way telecommunication information flow. By the year 2000 this figure had grown to 51%. The recent observations indicate that, by 2007, the Internet carried more than 97% of all telecommunicated information.

Questions:

1. What led to the discovery of the internet?

- a. Development of computers
- b. Industrialization
- c. Two way telecommunication
- d. Use of Social networking sites
- e. Forums and blogs

Correct answer: a

2. In the late 1960s and early 1970s, which type of networks was developed?

- a. Point to point networks
- b. Packet switched networks
- c. Protocols
- d. Internet
- e. All of the above

Correct answer: b

3. In which year the packet switched network ARPANET was removed from service?

- a. 1960
- b. 1970
- c. 1990
- d. 1995
- e. 2007

Correct answer: c

4. What was the reason for the commercialization of the internet?

- a. Removal of ARPANET
- b. Removal of phone calls
- c. Removal of NFSNET
- d. Removal of computers

e. Removal of Telenet

Correct answer: c

5. **In which of the following year, the standardization of the Internet Protocol Suite (TCP/IP) took place?**

- a. 1982
- b. 1960
- c. 1970
- d. 1972
- e. 1980

Correct answer: a

Verbal Section : Reading Comprehension Questions

Read the passage carefully and answer the questions given below by choosing the right option of the following given options.

Adolf Hitler was an Austrian-born German who took birth on 20 April 1889. He was a great politician. Hitler was the leader of the National Socialist German Workers Party which was well known as the Nazi Party. The German name for Nazi Party was NSDAP i.e. the National sozialistische Deutsche Arbeiterpartei. From the year 1933 till the year 1945 Hitler was appointed as the chancellor of Germany. Also, he was the dictator of the Nazi Germany from the 1934 to 1945. Hitler is considered to be one of the biggest reasons for [the rise of World War II](#), as well as fascism in Europe and the Holocaust.

With his experience in World War I, Hitler joined the German Workers' Party which was considered as the pioneer of the Nazi Party, in the 1919. As a result of this, in the year 1921, he became the leader of the NSDAP. After that, he attempted a takeover that was commonly known as the Beer Hall Putsch, in Munich, in the year 1923. But he failed in this revolution. As a result of this failure, Hitler was imprisoned for a certain amount of time. During his imprisonment, Hitler wrote his autobiography, Mein Kampf i.e. My Struggle. Hitler was released in the year 1924.

Hitler then received very good support after his release in 1924. He started attacking the Treaty of Versailles and promoted activities such as antisemitism, Pan-Germanism, anticommunism and many more, with the help of Nazi party line and appealing public speaking. He also transformed the Weimar Republic into a single-party dictatorship based on the autocratic and domineering principles of Nazism, after being appointed as the chancellor in the year 1933. This was commonly known as the Third Reich. He aimed to establish a New Order of absolute Nazi German supremacy in the continent of Europe.

The domestic as well as the foreign policies of Hitler were designed with the aim of seizing the living space i.e. the Lebensraum [for the people](#) of Germany. He directed the reinforcement of Germany in September 1939. In the same year, Hitler began with the invasion of Poland by the Wehrmacht that led to the outbreak of World War II in Europe. In the year 1941, the German forces, along with their European associates, under the Hitler's rule occupied most of the Europe and the North Africa. But the situations reversed gradually. In the year 1945, the German forces were defeated by the Allied armies.

As a result of Hitler's policies that motivated races and supremacy, eleven million people were found to be killed ruthlessly. These figures included around six million Jews as well.

In the year 1945, during the final days of the Battle of Berlin, Hitler married Eva Braun. She was his long-time mistress. But, less than two days later, on 30 April 1945, the couple committed suicide in order to avoid the arrest by the Red Army.

Questions:

1. What were the date and the year when Adolf Hitler did take birth?

- a. 30 April 1945
- b. 20 April 1889
- c. 2 October 1885
- d. 20 April 1890
- e. 30 January 1889

Correct answer: b

2. The supremacist and racially motivated policies of Hitler, resulted in the systematic murder of how many people?

- a. Eleven hundred million
- b. Eleven thousand
- c. Eleven billion
- d. Six million
- e. Eleven million

Correct answer: e

3. What was the name of the revolution in which Hitler had to face a failure and as a result of which he was imprisoned and during this period he wrote his memoir "My struggle"?

- a. Beer Hall Putsch in Munich
- b. Treaty of Versailles
- c. Battle of Berlin
- d. The Weimar Republic
- e. The Third Reich

Correct answer: a

4. **What was the name of the lady who was Hitler's long time mistress?**
- a. Rose Mary
 - b. Eva Braun
 - c. Maria
 - d. Monalisa
 - e. None of the above

Correct answer: b

5. **In which year the Allied armies defeated the German forces?**
- a. 1889
 - b. 1921
 - c. 1923
 - d. 1945
 - e. 1933

Correct answer: d

Verbal Section : Reading Comprehension Questions

Read the passage and answer the following set of questions based on it.

Mother Teresa took **birth in** the year 1910, on August 27 in the city of Skopje in Macedonia. The original name of Mother Teresa was Agnes Gonxha Bojaxhiu. She was the youngest child of all the three children that were born to the couple, Nikola and Drane Bojaxhiu. Drane Bojaxhiu was a merchant by profession and was a very successful man. When she was of the age of five and a half, she received her **First Communion** that got confirmed in November 1916. She has deep love for all the earthly souls from the first day of her **First Holy Communion**. When she was about eight years, her father's sudden death left the family in difficult financial situations. After her father's death, her mother Drane raised all her children very firmly and lovingly. This greatly influenced the character and skills of Mother Teresa.

The lively Jesuit rural community of the Sacred Heart, in which Gonxha was involved, further aided the culmination of religious values in her. She was just a 12 year old girl child when she made a decision to be a missionary in order to spread the love of Christ. To achieve this goal, she left her home in Skopje, at the age of 18 and became a part of the Sisters of Loreto. This was an Irish community of nuns that were running missions in the country, India. After joining this community, she was honored with the name "Sister Mary Teresa" after St. Thérèse of Lisieux.

Mother Teresa came to India after taking a few months of training on the 6th of January, 1929. She took training in Dublin at the Institute of the Blessed Virgin Mary. On the 24th of May, 1931, as a nun, she took her first vows. During the period from 1931 to 1948, Mother Teresa used to teach at St. Mary's High School in Calcutta, India. There she taught the subjects called as geography and catechism.

Mother Teresa became the "spouse of Jesus" for "all eternity", as she said, on the 24th of May 1937 by making her Final Profession of Vows. From this time onwards she received the name "Mother Teresa". By continuing with her teaching at the St. Mary's High School, she became its principal in the year 1944. She was a person of deep entreaty. She was intensely happy for her twenty years life in Loreto because of her deep love and affection for all the fellow sisters and students [over there](#). She was well known for her unique courageous and unselfish qualities of charity and hard work.

Mother Teresa has received great number of awards. In the year 1962, she received the Indian Padmashri Award. After that she received the Pope John XXIII Peace Prize in the year 1971. In the following year i.e. 1972, Mother Teresa was also awarded with the Nehru Prize for Promotion of International Peace & Understanding. Her noble work was also honored with one of the most prestigious awards i.e. the Nobel Peace Prize which she received in the year 1979. In the following year i.e. 1980, Mother Teresa also received the Bharat Ratna award. Other awards included the Balzan Prize which was awarded to her in the year 1978.

Mother Teresa stepped back from the honor of head of Missionaries of Charity on the 13th of March, 1997. On 5th of September, 1997 the world observed one of the greatest losses for humanity i.e. Mother Teresa.

Questions:

1. **What was the original name of Mother Teresa?**
 - a. Drane Gonxha Bojaxhiu
 - b. Agnes Gonxha Bojaxhiu
 - c. Nikola Gonxha Bojaxhiu
 - d. Balzan Gonxha Bojaxhiu
 - e. None of the above

Correct answer: b

2. **In which year was Mother Teresa awarded with the noble prize?**
 - a. 1979
 - b. 1972
 - c. 1980
 - d. 1978
 - e. 1971

Correct answer: a

3. **What is the name of the community that Mother Teresa became a part of after leaving her home at Skopje, at the age of 18?**
- a. Missionaries of Charity
 - b. Sisters of Loreto
 - c. Blessed Virgin Mary
 - d. St. Mary's High School
 - e. Jesuit rural community of the Sacred Heart

Correct answer: b

4. **Which subjects did Mother Teresa teach at the St. Mary's High school in Calcutta?**
- a. History and geography
 - b. Geography and catechism
 - c. Mathematics and history
 - d. English and mathematics
 - e. Science and geography

Correct answer: b

5. **In the year 1980, mother Teresa was awarded with which of the following honors?**
- a. Noble Peace Prize
 - b. Balzan Prize
 - c. Nehru Prize for Promotion of International Peace & Understanding
 - d. Bharat Ratna
 - e. Indian Padmashri Award

Correct answer: d

Verbal Section : Reading Comprehension Questions

Read the following passage carefully and select the best answer for the questions that are asked on the basis of the information given in the passage.

The word ocean is derived from the [Greek word](#) "oceanos" which means Oceanus. An ocean is generally a water body that is saline in nature. The oceans compose a very major part of the Earth's hydrosphere. The word that is often used in relation with the word "ocean" is "sea". But there is a big difference between the ocean and the sea. Sea is rather a water body that has salty water in a relatively small and interior location as compared to the oceans.

Out of all the planets that are observable, it is confirmed that the global ocean of the planet earth is the largest surface ocean. Approximately, out of the total earth's surface, 3.6×10^8

square kilometer i.e. 71% is covered by the saline water. This part is divided into number of smaller oceans as well principal oceans. Since the world oceans form an important part of the hydrosphere, it is essential for the lives of every living being on the earth. In addition to all this, the oceans also form an important part of the carbon cycle and hence, it has a great influence on the climatic conditions and weather patterns.

The world ocean is found to have an average depth of about 12,430 feet which equals to 3790 meters. And the total volume is found to be approximately of 310 million cubic miles which equals to 1.3 billion cubic kilometers. Around 2,30,000 species that are known to science are found to survive on oceans as their habitat. It is also estimated that there may exist more than two million marine species. Though the origin of the oceans of the earth is still not known, it is believed that they appeared first in the Hadean period and this might have been the point where life came to origin from.

You may find a vast variety of compounds and elements that compose the extraterrestrial oceans. The lakes of the Titans are the only large bodies of the extraterrestrial surface waters that have confirmation in spite of the evidences found for the existence of oceans elsewhere in the Solar System. The geological history of the Mars and the Venus also say that they had large water oceans. It is said that, almost one third part of Mars was covered by the oceans as per the Mars ocean hypothesis. But, these water oceans have no existence on Mars any longer. It is also said that the global oceans of Venus must have dried as a result of the green house effect.

There are various criteria that define the major [divisions](#) of oceans. These criteria include the continents, small as well as big group of islands and many more. These small parts of oceans are also known as strait, bay or sea gulf at times. The various divisions of oceans in the ascending order of their sizes are described as follows:

The Arctic Ocean is considered to be the smallest in size. It is also known as the sea of the Atlantic. The Arctic Ocean is found to cover majority of the Arctic as well as the northern part of North America and the Eurasia. Second is the Southern Ocean. It encloses the Antarctica and is also known as the extension to the oceans namely the Pacific, Atlantic as well as the [Indian Ocean](#). The third is the Indian Ocean. The Africa and Australia are separated by this ocean. It also covers the Southern part of the Asia. The next big ocean is the Atlantic. The America is separated from the Europe and Africa by this ocean. The biggest of all is the Pacific Ocean which separates the America from the continent Asia and Oceania.

Questions:

1. **The world ocean is found to have an average depth of about how feet?** a. 12430 feet
b. 3790 feet

- c. 310 feet
- d. 12330 feet
- e. 12220 feet

Correct answer: a

2. Which is smallest ocean of all the observable oceans on Earth?

- a. Pacific Ocean
- b. Indian Ocean
- c. Atlantic Ocean
- d. Southern Ocean
- e. Arctic Ocean

Correct answer: e

3. Which ocean separates America from Asia and Oceania?

- a. Indian ocean
- b. Arctic Ocean
- c. Pacific Ocean
- d. Southern Ocean
- e. Atlantic Ocean

Correct answer: c

4. Which is the third largest ocean in the world?

- a. Indian ocean
- b. Arctic Ocean
- c. Pacific Ocean
- d. Southern Ocean
- e. Atlantic Ocean

Correct answer: a

5. Which are the only large bodies of the extraterrestrial surface waters? a.

- lakes of the Titans
- b. lakes of Arctic
- c. lakes of Pacific
- d. lakes of India
- e. lakes of America

Correct answer: a

Verbal Section : Reading Comprehension Questions

Read the following passage and answer the following questions.

Galileo Galilei was born on 15th February, 1564 in the city of Pisa in Italy. He was the first child to Vincenzo Galilei and Giulia Ammannati. Though his father, Vincenzo Galilei was related with the field of music, he wanted Galileo to make his career [in the field](#) of medicine for economical reasons. And to fulfill his father's wish, Galileo went to the University of Pisa, in the year 1581. He was 17 years old at the time when he started studying medicines.

Galileo was a well known for his work in the field of science. He was a great physicist from Italy. He contributed greatly to the subjects such as mathematics, astronomy as well as philosophy. Because of all these contributions, Galileo played a huge role in creating wonders and bringing out a great revolution in the field of science.

Some of the major contributions of Galileo consist of the better astronomical observations that were a result of the new and improved class of telescopes. This also sustained the theories of Copernicus. In addition to this, his studies also included the telescopic research that confirmed about the various phases of the Venus. Galileo was the first one to discover the four largest satellites of the [planet Jupiter](#). These four satellites were then named as the "Galilean moons" after him. Galileo did not stop here. He continued with his research and made observations to analyze the sunspots. He not only worked in the field of astronomy but also expanded his studies and work in the field of technology and [applied science](#). The invention of new and improved military compass and such other scientific instruments are an example of his work in these fields.

Looking at the contributions of Galileo in the various fields, he is honored with many different names. These names of honor include the "father of science", the "father of modern physics", the "father of modern observational astronomy" a swell as "the Father of Modern Science".

Galileo continued with his writings even when he was under the house arrest. There he wrote a detailed summary of his forty years early work that he had done in the field of science. He named this summary as the 'Two New Sciences', which was counted among one of his finest writings. These works of Galileo are currently known by the name 'kinematics' and the 'strength of materials'.

Marina Gamba was Galileo's mistress. The couple had three children. There were two daughters who were named as Virginia and Livia and one son whose name was Vincenzo. Galileo died on 8th January, 1642 and was buried in the church called as the Basilica of Santa Croce in Florence, Italy.

Questions:

1. **The 'Two New sciences' written by Galileo summarizes which of the following subjects of today?**

1. History and mathematics
2. Physics and science
3. Kinematics and strength of materials
4. Kinetics and material management
5. Astronomy and philosophy

Correct answer: c

2. **The satellites of which planet were named as the "Galileo moons"?**

1. Venus
2. Earth
3. Mars
4. Saturn
5. Jupiter

Correct answer: e

3. **When Galileo Galilei did take birth?**

1. 15th February, 1564
2. 15th February, 1654
3. 15th February, 1465
4. 15th February, 1645
5. 15th February, 1456

Correct answer: a

4. **Galileo went to which university for studying medicine?**

1. University of Italy
2. University of Pisa
3. University of Cambridge
4. University of Florence
5. University of France

Correct answer: b

5. **Galileo was buried in which church?**

1. Basilica of Santa Croce
2. Basilica of Santa Core
3. Basilica of Santa
4. Basilica of Santa Italy
5. Basilica of Santa Pisa

Correct answer: a

Verbal Section : Reading Comprehension Questions

Read the given passage properly and the following questions.

The Eiffel Tower of Paris is called as 'La Tour Eiffel' in French. 'La dame de fer' is the nickname of Eiffel tower which means 'the iron lady'. The Eiffel tower is constructed using the wrought iron. It is a network tower situated on the river known as Champ de Mars.

In order to celebrate the 1789 French revolution, the World Exhibition was held in the year 1889. It was for this World Exhibition that the Eiffel tower was constructed in 1889 which formed the entrance to the World Fair. Since then it has been the one of the most popular structures in the world as well as a cultural symbol of France that is well recognized globally.

Gustave Eiffel was the man responsible for the construction of Eiffel Tower. Gustave Eiffel was an employee working in the Great Viaduct at the Garabit in the year 1884. He was well known for the techniques that he used for building bridges. These [bridge building](#) techniques formed the base for erecting the Eiffel Tower. In addition to this, Gustave was also known for the construction of the iron framework of [the Statue of Liberty](#).

The construction of the Eiffel Tower was started in the year 1887 and the tower was completed in the year 1889. It took more than a couple of years to build the tower completely. Around 12000 iron pieces were used for building the Eiffel Tower. All these pieces were fitted together with the help of around 7 million nails. Each and every piece had a different design and was then shaped accordingly. Since all these pieces were made of iron, all of them were prefabricated.

It is 320 meters in height i.e. about 1050 feet tall. This height is almost equal to that of an 81 storey building. It is the tallest of all the buildings in Paris. Records show that millions of tourists and visitors visit the Eiffel Tower every year and hence it is the most visited as well paid structures all over the world.

Out of the three levels for visitors, the first and the second levels of the tower consists of restaurants. The first level is at a height of 300 steps from the ground level. The second level is at the same height from the first level. You need to buy tickets to get an entry in to the Eiffel Tower. But, you need to use the lifts to go till the third and the highest levels of the tower.

The Eiffel Tower received the title of the 'tallest man made structure in the world'; since it surpassed the Washington Monument which was the tallest monument till then, when the Eiffel Tower was under construction. This title was retained by the Eiffel Tower until the construction of the Chrysler Building in New York City in the year 1930. But, after the antennas were added at the tallest point of the Eiffel Tower in the year 1957, it again

became the tallest structure in the world, and was taller than the Chrysler Building. But, with the exclusion of these antennas, Millau Viaduct is the first and Eiffel Tower is the second tallest structure located in France.

Questions:

1. **In which year did the construction of the Eiffel Tower was completed?** a. 1885
b. 1887
c. 1889
d. 1930
e. 1957

Correct answer: c

2. **On which river is the Eiffel Tower constructed?**
a. Champ de Mars
b. Champ de Venus
c. Champ de France
d. Champ de Paris
e. River Thames

Correct answer: a

3. **The Eiffel Tower is named after which person?**
a. George W Bush
b. Abraham Lincoln
c. Gustave Eiffel
d. [Barrack Obama](#)
e. Martin Luther King

Correct answer: c

4. **In which year did Eiffel tower lose the title of the 'tallest man made structure in the world'?**
a. 1887
b. 1889
c. 1930
d. 1957
e. 1998

Correct answer: c

5. **Which is the tallest building in France when we do not consider the antennas?**

- a. Millau Viaduct
- b. Eiffel Tower
- c. Chrysler Building
- d. Leaning Tower of Pisa
- e. Statue of Liberty

Correct answer: a

Verbal Section : Reading Comprehension Questions

Read the following passage carefully and answer the questions given below by choosing the most appropriate options of all.

The Walt Disney Company is well known as Disney. Disney is a multinational mass media company that is based in America. The headquarters of the Disney Company is named as the "Walt Disney Studios" and it is situated in Burbank city of California in the United States. Records show that the Disney Company is the biggest multinational mass media firm earning the highest revenue of all the firms worldwide.

When Margaret J. Winkler, a film distributor then, saw the Walt Disney's first creation, which was a short film named as 'Alice's Wonderland', she invited the two Disney brothers to do a complete series based on Alice's Wonderland. The film featured lots of animated characters and also a child actress named Virginia Davis who played the leading role in the film. Then the two brothers went to Los Angeles for completing the contract.

They marked the beginning of their Disney Brother's Cartoon Studio on the 16th of October, 1923 by setting up a shop in a garage. This garage was owned by their uncle, Robert Disney. They started with the Alice's Comedy Series from this small garage and within a short period of time they progressed with their work into a bigger office, in downtown Los Angeles. Then they constructed a new studio for them in the Hyperion Avenue in the Silver Lake district of Los Angeles, in the year 1926. They completed their first contract of Alice's Wonderland in the year 1927.

The most famous cartoon character and the symbol of Walt Disney i.e. 'Mickey Mouse' was developed first in the year 1928. When the Disney brothers suffered great loss due to the loss of the contract of their first original cartoon character i.e. 'Oswald the Lucky Rabbit', Mickey Mouse was created by Walt Disney and Ub Iwerks. The first animated film that featured Mickey Mouse was named as 'Steamboat Willie' was released on the 18th of November, 1928. This was also the first sound film created by Disney. 'Plane Crazy' and 'The Gallopin' Gaucho' also featured Mickey Mouse but could not find a distributor.

With the success of this film, in the year 1934, the Disney Brothers started with the production of their first characteristic and full length animated film which was named as

'Snow White and the Seven Dwarfs'. This film was based on one of the most popular fairy tale of that time which was written by the Grimm Brothers'. The film got completed in the year 1937 and it was premiered in the same year in the month of December. This film made a record collection and became the highest revenue earning film by the year 1937.

With the revenue collected from the Snow White and the Seven Dwarfs, a new and very huge studio complex was constructed by Disney in the Burbank city of California, US. This complex was spread in an area of about 51 acres and is observed as the headquarters of the new Walt Disney Studios till date. This studio was opened for the public and hence business in the late 1939.

In the year 1954, Walt Disney came up with the idea to develop the Disney studio into the Disneyland and create a fun place for the common people and children. Finally on the 18th of July, 1955, Walt Disney brought this idea to life and opened the gates of Disneyland for the common man.

Questions:

1. **Where the headquarter of the Disney Company i.e. the Disney Studios situated?**

- a. Burbank
- b. Los Angeles
- c. New York
- d. [London](#)
- e. Disneyland

Correct answer: a

2. **Name the first original cartoon character created by the Disney Brothers'?**

- a. Mickey Mouse
- b. Snow White and the Seven Dwarfs
- c. Oswald the Lucky Rabbit
- d. Plane Crazy
- e. The Gallopin' Gaucho

Correct answer: c

3. **When did Walt Disney open the Disneyland for the general public?**

- a. 18th of July, 1965
- b. 18th of July, 1975
- c. 18th of July, 1957
- d. 18th of July, 1956
- e. 18th of July, 1955

Correct answer: e

4. **What was the name of the first animated sound film featuring Mickey Mouse that received the support of film distributors?**
- Steamboat Willie
 - Snow White and the Seven Dwarfs
 - Oswald the Lucky Rabbit
 - Plane Crazy
 - The Gallopin' Gaucho

Correct answer: a

5. **Which film made a record collection and became the highest revenue earning film by the year 1937?**
- Plane Crazy
 - Oswald the Lucky Rabbit
 - Snow White and the Seven Dwarfs
 - Steamboat Willie
 - The Gallopin' Gaucho

Correct answer: c

Verbal Section : Reading Comprehension Questions

Read the given passage properly and answer the following questions.

Barack Hussein Obama II is the full name of Barack Obama who is the current and the 44th President of the [United States of America](#) (US). He took birth on the 4th of August in the year 1961 at a maternity hospital in Honolulu, Hawaii named as Kapiolani Maternity & Gynecological Hospital. This hospital is now known as the Kapiolani Medical Center for Women and Children.

Obama studied in the local schools of Jakarta till the age of ten. After that he completed with his graduation in the year 1979 from a private college preparatory school in Honolulu with the help of [scholarship](#). The name of this school is the Punahou School.

After completing his graduation, Obama sort admission to the Occidental College in 1979 and hence shifted to Los Angeles. Obama made his first public speech in February 1981. He made this speech to separate Occidental from the South Africa because of its political system, where only the white people had all the rights and power.

Obama then moved to the New York City at the end of 1981. There he excelled in the subject of political science along with a specialization in international relations from the Columbia University. He also completed his degree as Bachelor of Arts from the same

university in the year 1983. After completing with this education, Obama worked there for a year. He first worked at the Business International Corporation. Following this organization, he also worked with New York Public Interest Research Group.

After a couple of years of completing with his graduation in New York City, he was entitled with the directorship of the Developing Communities Project (DCP) in Chicago. This Developing Communities Project (DCP) was basically a community organization that originally comprised of eight Catholic districts with their own churches on the south side of Chicago. Roseland, Riverdale and West Pullman were among these eight Catholic districts. He worked there from June 1985 till May 1988 as an organizer of the DCP community

Later in the year 1988, Obama stepped into the Harvard [Law School](#). By the end of his first year of his degree of Law, he was selected for the editorship of the journal named as the Harvard Law Review. Not only this, but also he was elected as the president of the same journal when he was in his second year of Law. When Obama was in Chicago for his summer vacations, he worked there an associate at two law firms. These two law firms are the Sidley Austin (1989) and the Hopkins & Sutter (1990).

Obama completed with his degree of Law from the Harvard with the second highest level of academic honors at graduation. He then returned to Chicago in the same year. Since Obama was the first black to receive the honor of being the president of the Harvard Law Review journal, this became great news for all the national media. This event led to the creation of a book based on the race relations which later developed into a personal chronicle. Finally this journal was published in the mid of the year 1995 with the name as 'Dreams from My Father'.

On the 10th of February, 2007, Obama decided to make an announcement regarding his candidacy for the post of the President of the United States of America. He chose the Old [State Capitol](#) building in Springfield, Illinois as the place for this announcement as this was the place where Abraham Lincoln made his "House Divided" speech in the year 1858. Finally on the 20th of January, 2009 Barack Obama commanded the post as the 44th President of the US and Joe Biden as the Vice President.

Questions:

1. **Where did Obama study till the age of ten?**
 - a. Chicago
 - b. Jakarta
 - c. Los Angeles
 - d. New York City
 - e. London

Correct answer: b

2. **When Barack Obama did command the post as the 44th President of the US?**
 - a. 20th February, 2009

- b. 10th February, 2007
- c. 10th of February, 2005
- d. 10th of February, 2006
- e. 10th of February, 2008

Correct answer: a

3. Name the memoir of Barack Obama that was published in the mid of the year 1995?

- a. 'Dreams from My Grandfather'
- b. 'Dreams from My Mother'
- c. 'Dreams from My Brother'
- d. 'Dreams from My Sister'
- e. 'Dreams from My Father'

Correct answer: e

4. Who was the first black president of the Harvard Law Review journal?

- a. Barack Obama Sr.
- b. Barack Obama II
- c. Joe Biden
- d. Michelle Obama
- e. Joe Obama

Correct answer: b

5. Obama decided to make an announcement regarding his candidacy for the post of the President of the United States of America at which place?

- a. London Bridge
- b. Eiffel tower
- c. Big Ben
- d. Old State Capitol building
- e. Harvard University

Correct answer: d

Verbal Section : Reading Comprehension Questions

Read the given passage properly and answer the following questions.

It is found that, the differences in the cultural and religious customs of different human civilizations are not only depicted by their geographic location and sociological conditions, but also by the different styles that they use for the production of various types of [alcoholic beverages](#). When the late Stone Age jugs of beer were discovered, it proved that there existed certain types of beverages that were fermented purposely during the 10,000 BC.

During the Indus Valley Civilization period, traces of alcoholic beverages were first found during its Chalcolithic Era. These purposely fermented beverages were found to be in use within the 3000 BC till the 2000 BC. One such kind of beverage that was very well known not only among the peasants of that time, but also among the Kshatriya warriors was "Sura". The Sura was prepared by brewing the following ingredients such as the rice meal, sugar cane and wheat. Sura also contained brewed grapes and some other fruits. The Hindu God Indra was also very fond of this beverage called as 'Sura'.

Both the advantages and the disadvantages of alcohol consumption are clearly described by the Hindu Ayurveda. Ayurveda describes that if you consume alcoholic beverages in moderate amount then it will work as medicine. But, if it is consumed beyond acceptable limits, then it will work as poison. Considering the ayurvedic advantages of alcohol, most of the Indian and Chinese population has started fermenting small portions of grains and fruits to benefit themselves with the benefits of alcohol.

The use of alcohol is also mentioned in the Ramayana and the Mahabharata, which are two of the great epics of the Hindu origin. In Ramayana, the good consumers of alcohol belonged to the category of vegetarians; whereas the bad consumers belonged to those who eat non-veg., but, unlike the Ramayan, Mahabharata did not distinguish the alcohol consumers into such contrast. In India, Lord Mahavira Buddha was the first person to promote to restrain oneself from consuming alcohol.

Now-a-days, scientific research has shown that moderate drinkers of alcohol are more likely to have better health and can also live for more years in comparison to those people who consume alcohol in excess and also those who do not drink at all. The possibility of heart attacks is also very less in case of moderate drinkers. The chances of diseases such as diabetes, dementia, certain major type of cancers and death due to strokes is also very less. These people are also less likely to suffer with the problem of enlarged prostate.

But, along with the advantages there are many other disadvantages of excess alcohol consumption. Depending on the amount and the type of alcohol that one drinks, there are number of psychological effects that one can suffer from. One of the biggest side effects is the alcohol abuse. In case of alcohol abuse one gets so engaged in drinking that he gets involved into anti social activities causing harm to others. These unsocial activities can ultimately prove to be a threat to relations, employment, accidents and also violence.

Questions:

1. **Who was the first priest to preach to refrain oneself from alcohol in India?**
 - a. Indra
 - b. Mahavira Buddha
 - c. Gautam Buddha
 - d. Ganesha

e. Shiva

Correct answer: b

2. **Which fermented beverage was the favorite of the Indian god Indra?** a. Sura
b. Cauim
c. Tiswin
d. Sure
e. Wine

Correct answer: a

3. **Which Hindu Epic did not distinguish the alcohol consumers into the good/bad contrast?**
a. Ramayan
b. Mahabharata
c. Bible
d. Quran
e. None of the above

Correct answer: b

4. **Discovery of which thing proved that fermented beverages existed during the Stone Age period?**
a. Beer mugs
b. Beer jugs
c. Beer bottles
d. Beer bars
e. Beers

Correct answer: b

5. **During the Indus Valley Civilization period, traces of alcoholic beverages were first found during which era?**
a. Paleolithic Era
b. Monolithic Era
c. Early Food Producing Era
d. Chalcolithic Era
e. Regionalization Era

Correct answer: d

Verbal Section : Reading Comprehension Questions

Read the given passage properly and answer the following questions.

The diamonds have been one of the most adorable gems for centuries. They are the most precious of all [the stones](#) known to man. The diamonds are also very hard in nature and one of the most everlasting gems. The term "diamond" is derived from the [Greek word](#) "adamas" which means "unconquerable", "unalterable" or "untamed".

The optical characteristics of the diamonds are very remarkable. Since, they have a very firm lattice structure they are less likely to get contaminated by some of the rare types of impurities that include both nitrogen and boron. Because of this reason and the transparent nature of the diamonds the diamonds have a very clear and colorless appearance.

Though the diamond have less chances of having any impurities, certain minute defects would result in different colored diamonds, such as pink, yellow, green, red, brown, purple and orange. The property of the diamond to cause dispersion of light of different colors, provide it with a unique luster.

When the deep volcanoes erupt, the magma i.e. the molten rocks push the diamonds to the surface of the Earth. When these volcanic emissions cool down they result in the formation of igneous rocks which are referred to as kimberlites and lamproites. We can also produce diamonds artificially by creating a high temperature and high pressure condition leading to unnatural simulations in the layers on the Earth. Another method of producing diamonds in a synthetic manner is CVD i.e. chemical vapor deposition. Apart from the natural and artificial diamonds there are certain diamond simulants also. The diamond simulants are generally non-diamond materials that have properties and appearance similar to that of diamonds. Because of the development of so many varieties for diamonds, special gemological techniques have been developed in order to differentiate between the natural diamonds, synthetic diamonds and the diamond simulants.

The most rare and most valuable diamond in the world is the pink diamond. And the leading of pink diamonds all over the world is the Argyle mine. It produces almost 95% of the pink diamond that is supplied worldwide. The different shades of pink diamonds include delicate pastel rose, strong raspberry and the purple- reds.

The white diamonds are found to be produced in different shapes and sizes all over the world. Other variety of colored diamonds is the Champagne diamonds. These diamonds are again found to have wide range of shades that are graded according to the color scale C1 to C7. The grading scheme is as follows: C1 and C2 consist of the Light Champagne colored diamonds, C3 and C4 consist of the medium champagne colored diamonds, and C5 and C6 consist of the dark champagne colored diamonds. The cognac diamond is classified under the grade C7 of the color scale.

Similarly the yellow colored diamonds are also available in a variety of shades ranging from a light yellow colored one to a rich canary colored diamond. The blue diamonds also

continue the trend of having a variety of shades in it. These diamonds range from sky blue color to strong color of sapphire.

Of the two diamond simulants Cubic Zirconia (CZ) and the Synthetic Moissanite, the CZ is found most commonly in the market. But with the help of thermal pen testers one can easily differentiate it from the original ones. However, the synthetic moissanite have thermal properties similar to that of naturally found diamonds; hence you cannot identify them using the thermal pens. Instead of this, there are other methods developed to identify this diamond simulant.

Questions:

- 1. Name two diamond simulants that have properties and appearance similar to that of diamonds?**
 - a. Cubic Zirconia, Synthetic Moissanite
 - b. Synthetic Moissanite, blue diamond
 - c. Blue diamond, Cubic Zirconia
 - d. Yellow diamond, Synthetic Moissanite
 - e. Brown diamond, Synthetic Moissanite

Correct answer: a

- 2. The cognac diamond is classified under which of the following class of grade?**
 - a. C1
 - b. C2
 - c. C3
 - d. C4
 - e. C7

Correct answer: e

- 3. Which property of diamond provides it with a unique luster?**
 - a. High optical dispersion of light into different colors
 - b. Clearness
 - c. Transparency
 - d. Colorless
 - e. Hardness

Correct answer: a

- 4. Which is the most rare and most valuable diamond in the world?**
 - a. Yellow diamond
 - b. Blue diamond
 - c. Pink diamond

- d. Green diamond
- e. Brown diamond

Correct answer: c

5. **By which method one can quickly and easily detect the diamond simulant Cubic Zirconia (CZ)?**

- a. Ball pen tester
- b. Thermal pen tester
- c. Ink pen tester
- d. Microscope
- e. Magnifying glass

Correct answer: b

Verbal Section : Reading Comprehension Questions

Read the given passage properly and answer the following questions.

The New York City is the highest populated city in the [United States of America](#) (US). It is also known as the home of the United Nations Headquarters. In addition to this it is also the center of the New York Metropolitan Area. New York is also one of the most populous metropolitan areas all over the world. There is a great impact of the New York City on the various important social as well as political factors related to the human life. These social factors include the finance, education, media, arts, technology, fashion, entertainment and research; whereas the political issues such as the global commerce and economy are included in the list.

This city was founded in the year 1624 as a place for carrying out all the trading by the colonists belonging to the Dutch Republic then. In 1626, the city was given the name as New Amsterdam. But, the English established their control over this city in the year 1664 and renamed it as New York when King Charles II of England gave away the lands to his brother, the Duke of York. From the year 1785 until the year 1790, the City of New York was entitled as the capital of the United States (US). Since, 1790, the city is marked as the [largest city](#) of the country, the US. One of the symbols that is very popular and familiar to all the people of the world is "[The Statue of Liberty](#)". This statue also symbolizes the democracy of the United States (US).

The New York City is also considered as an important center from the point of view of international diplomacy. It is also regarded to represents the cultural capital of the world. The New York, US is also referred by the names such as the New York City or The City of

New York. These names that are given to New York differentiate it from its parent state i.e. The State of New York because it is a part of this state.

The New York City is found to be located on one of the largest natural harbors in the world. The City of New York is found to have five districts or towns that are responsible for looking after all the local services for the people of the city. These districts or towns are also known as boroughs. Each of these five boroughs namely The Bronx, Manhattan, Brooklyn, Staten Island as well as the Queens consists of a state county. But all these five towns were combined into one single city in the year 1898.

According to the census records for the year 2011, it is found that around 8,244,910 people reside in the City of New York whose land area is just 790 square kilometers. This area is equivalent to almost 305 square miles. As per these ratios, the City of New York is entitled as the city with the densest population in the United States (US) in comparison to all the other cities in the United States (US). The population of the New York City Metropolitan Area is 18.9 million as per the 2010 census records. This population is spread in more than 17,400 square kilometers i.e. around 6,720 square miles area.

The New York City is also well known for the large number of varieties of languages spoken by the people of the city. It is observed that over 800 different languages are spoken in this city and hence it is considered as the city with the most divergence in terms of language all over the world.

Questions:

1. **By which name was the [City of New York](#) known to the colonists of the Dutch Republic?**
 - a. New Amsterdam
 - b. New York
 - c. The City of New York
 - d. The New York City
 - e. All of the above

Correct answer: a

2. **When the English did established their control over the city of New York?** a. 1624
 - b. 1664
 - c. 1726
 - d. 1662
 - e. 1660

Correct answer: b

3. **The City of New York is found to have how many districts or towns that are responsible for looking after all the local services for the people of the city?**
- a. Five
 - b. Four
 - c. Three
 - d. Six
 - e. Seven

Correct answer: a

4. **In which year were the five boroughs combined into one single city?**
- a. 1624
 - b. 1626
 - c. 1664
 - d. 1790
 - e. 1898

Correct answer: e

5. **How many languages are spoken in the City of New York?**
- a. 800
 - b. 900
 - c. 1000
 - d. 700
 - e. 600

Correct answer: a

Verbal Section : Reading Comprehension Questions

Read the given passage carefully and select the correct answer for the following questions.

Las Vegas city is situated in the [state of Nevada](#), United States (US). It is the city with the highest population as compared to all other cities in the state of Nevada. Las Vegas is also the regional seat of Clark County. The city of Las Vegas is well known all over the world as the city of gambling. Not only this, but the city is also famous for its explicit resort locations and the hospitality in the world. It is a very good destination for those people who love [shopping and](#) are crazy about different types of food and fine dining. Because of the rare combination of casino-hotels and the entertainment packages associated with them, the city is also referred to as the "The Entertainment Capital of the World". The city's population majorly comprise of families and retired personals. According to the [2010 census](#) records, the population of Las Vegas was 583,756; whereas population of the Las Vegas metropolitan area in the same year was recorded about 1,951,269. As per these statistics, the Las Vegas city ranks 28 according to the population count in the United States (US).

Las Vegas was established in the year 1905, but it was not known as a city at that time. It received the title of "city" in the year 1911. Las Vegas was found as the city with the highest population in the state of America, by the end of the 20th century following Chicago that had the highest population in the 19th century.

Under the title of "Sin City", Las Vegas observed various forms of adult entertainment. This led the film and the television industry people turn to Las Vegas for shooting their films and televisions series.

All the streets in the city are fully covered up with lights and various types of lighting displays. The Fremont Street of Las Vegas city is well known for its numerous outdoor displays for lighting up the entire street. The city not only covers the resort areas within the city but also the areas that fall beyond its limits near the Las Vegas Strip. The entire Las Vegas Valley is also referred as the Las Vegas sometimes.

Raphael Rivera was the first European who was a reported to visit the Las Vegas Valley in the year 1829. When the Spaniards of the Antonio Armijo party were moving along the north and the west of the Old Spanish Trail from the Texas, they used the waters of the Las Vegas valley. It was during this time that Las Vegas was named so by the Spaniards since the valley had widespread green areas which mean "vegas" in Spanish.

All the trade in Las Vegas earns its economy with the help of the gaming, tourism and related sectors of Las Vegas.

Questions:

1. **Under which title Las Vegas observed the various forms of adult entertainment?**
 - a. Las Vegas City
 - b. Sin City
 - c. Gambling city
 - d. Resorts
 - e. Fremont Street

Correct answer: b

2. **In which year Las Vegas was incorporated as a city?**
 - a. 1905
 - b. 1911
 - c. 1910
 - d. 1909
 - e. 1908

Correct answer: b

3. **Who was the first European who was reported to visit the Las Vegas Valley in the year 1829?**
- a. Spaniards
 - b. Raphael Rivera
 - c. Antonio Armijo
 - d. Anthony Rivera
 - e. None of the above

Correct answer: b

4. **Which city of Las Vegas city is well known for its numerous outdoor displays that light up the entire street?**
- a. Fremont Street
 - b. Sin City
 - c. Old Spanish Trail
 - d. Belmonte Street
 - e. All of the above

Correct answer: a

5. **Las Vegas is also the regional seat of _____?**
- a. Clark County
 - b. Spaniards
 - c. Raphael Rivera

 - d. Antonio Armijo
 - e. Raphael Nadal

Correct answer: a

Verbal Section : Reading Comprehension Questions

Read the given passage carefully and select the correct answer for the following questions.

The silver is a metallic element that is widely used for making ornaments. After the discovery of the metals gold and copper in the 4000BC, [the metal](#) silver was discovered. Large deposits of silver were then discovered in the Nevada state of America, during the mid of the 19th century. As a result of this, the United States became the world's largest producer of silver until the 20th century. After that, the Mexico and South American state Peru productions left the US production of silver behind.

Silver was firstly used making jewelry and also as a medium of exchange. The workings of the pre-Hittites of Cappadocia in eastern Anatolia were found to use the metal silver in large quantities.

It is a chemical substance that is a soft solid in nature and somewhat grayish-white in color. The chemical symbol of silver is Ag where Ag means "Argentum". The silver is named so because arg means "shining" or "grey" according to the Indo-European languages. The atomic number of silver is 47. The thermal conductivity of the metal is as high as any metal can have. Silver is also a very good conductor of electricity. But, because it is very costly, this metal has not been replaced for the use copper in the making of electric wires. Silver is found in the form of native silver when it occurs freely in nature. Silver can also exist in the form of an alloy with other metals such as gold, copper, platinum and many more. You can also find traces of silver occurring in minerals such as the argentite and chlorargyrite. The byproducts of elements like the copper, lead, gold and refines of zinc is mostly used for the production of silver. Though silver is somewhat more hard in nature than gold, it is still very flexible and hence, can be easily molded into any shape.

There are many commercial uses of silver and its alloys. Silver when mixed with copper and other metals, the alloy is known as sterling silver. It contains 92.5% silver. This alloy is mainly used for making jewelry and varieties of silverware. [The dentists](#) also use silver as tooth filling compound. Silver can also be used in photography in the form of silver nitrate or lunar caustic. Since, it is a good conductor of electricity and heat it can be used for soldering, brazing, establishing electrical contacts, manufacturing batteries as well as printed circuits. Silver in its pure and fresh form is found to be used in making of mirrors because it can reflect the visible light very well.

The Silver fulminate compound of silver is highly explosive in nature. The method of artificial production of rains makes use of silver iodide. This method is known as cloud seeding. Since the silver and salts of silver contain anions, most of the salts of silver are found to be poisonous in nature. When compounds of silver get stuck up into the circulatory system, [it leads](#) to grey colored pigmentation of the skin and mucous membranes. This disease is known as argyria. It can also be kill certain types of germs without causing any harm to other organisms because of is germicidal properties.

Questions:

- 1. During the mid of the 19th century large deposits of silver were discovered in which state?**
 - a. Nevada
 - b. America
 - c. Peru
 - d. Mexico
 - e. South Africa

Correct answer: a

2. **Name the disorder that leads to grey colored pigmentation of the skin and mucous membranes?**

- a. Cancer
- b. Jaundice
- c. Diarrhea
- d. Tuberculosis
- e. Argyria

Correct answer: e

3. **Which silver alloy is mainly used for making jewelry and varieties of silverware?**

- a. Silver nitrate
- b. Silver chloride
- c. Sterling silver
- d. Silver fulminate
- e. Lunar caustic

Correct answer: c

4. **Which compound of silver is highly explosive in nature?**

- a. Silver fulminate
- b. Sterling silver
- c. Silver nitrate
- d. Silver

- e. Silver chloride

Correct answer: a

5. **What is the atomic number of silver?**

- a. 46
- b. 47
- c. 48
- d. 49
- e. 45

Correct answer: b

Verbal Section : Reading Comprehension Questions

Read the given passage carefully and select the correct answer for the following questions.

Gold is a metal that attracts everyone very easily. The [scientific name](#) of gold is derived from a Latin word "Aurum" which means "gold" in English. The atomic number of gold is 79.

Gold is an opaque metal and it is very soft in nature. It has a [very beautiful](#) natural shine that polish that makes it an attractive metal. Gold also has the malleability and ductility properties like all other metals.

The pure yellow colored and lustrous gold does not undergo oxidization in air or water. Under standard temperature and pressure, gold remains in an un-reactive and solid state. Because of this property, it exists in nature in the deposits of gold, in the form of chunks in rocks. You can also find gold in the alluvial deposits. You can also traces of gold in minerals.

Though gold has the ability to defend itself from the attack of acids, there is one acid that has the property to dissolve gold in it. This acid is named as "aqua regia", chemically known as "nitro-hydrochloric acid" because it can dissolve gold. The alkaline solutions of Cyanide are another such acids, basically used in mining can also dissolve gold. You can also dissolve gold in mercury, to form "amalgam alloys".

The property of nitric acid to dissolve silver and other base metals but not gold is found to be very useful to detect traces of gold in various items that are to have gold in it. This method of testing for the presence of gold is known as acid test.

Gold is so ductile and malleable that you can beat a gold leaf until it becomes transparent. Since, gold can powerfully reflect the red and the yellow color, when you transmit light through gold the resulting light has a greenish blue appearance.

You can yield red gold by using copper as the base metal. Red gold or rose gold can be obtained by using eighteen-carat gold that contains 25% copper. The police and similar other badges and emblems are made from fourteen-carat gold that contains around 45% copper. Hence, the fourteen carat gold and copper alloys have the color very similar to that of alloys of bronze. Similarly, iron can be used to produce blue gold alloys and aluminium can used to produce purple gold alloys. These alloys of gold are rarely used for making special varieties of gold ornaments.

Because of the anti-inflammatory properties possessed by some of the salts of gold, it is found to be useful for treating the problem of arthritis. It is also found to be useful in preparing injections that can help the patients of [rheumatoid arthritis](#) and tuberculosis to deal with the pain and swelling. Dentists use gold and gold alloys as teeth fillings. Gold is also useful in the biological and medical field in the form of colloidal gold.

Gold is also beneficial for health. It can be consumed as solid food or in the form of drink. In the Medieval Europe, people used gold flakes for decorating foods and drinks in the form of gold leaves or dust of gold. The Germans prepared an herbal liqueur named as "Danziger Goldwasser" which means "Goldwater" in English using gold flakes and gold leaf.

Questions:

1. **What is the chemical name for gold?**

- a. Aurum
- b. Gold
- c. Silver
- d. Argentum
- e. Mercury

Correct answer: a

2. **Name the herbal liqueur prepared by the Germans using gold flakes and gold leaf?**

- a. Goldwater
- b. Green gold water
- c. Blue gold water
- d. Red gold water
- e. Purple gold water

Correct answer: a

3. **Which form of gold is useful in the biological and medical field?**

- a. Colloidal gold
- b. Ductile gold
- c. Strong gold
- d. Malleable gold

- e. Gold dust

Correct answer: a

4. **What is the percentage of copper in eighteen carat gold?**

- a. 25%
- b. 45%
- c. 15%
- d. 5%
- e. 24%

Correct answer: a

5. **Which acid has the property to **dissolve** silver and other base metals but not gold?**

- a. Nitric acid
- b. Aqua regia
- c. Sulphuric acid
- d. Hydrochloric acid
- e. Alkaline solutions of cyanide

Correct answer: a

Verbal Section : Reading Comprehension Questions

Read the given passage carefully and select the correct answer from the five options given for the following questions.

Platinum is a very precious metal with the chemical symbol as Pt. platinum has derived its name from the Spanish word "platina" which means "little silver". The atomic number of this chemical element is 78.

The color of platinum in its purest form is silvery-white. **The metal** has a natural shine and glaze that makes it resemble the chemical element silver, therefore the metal is highly mistaken for silver. It possesses the common properties of metals of ductility and malleability. The ductility property of platinum is the highest of all the metals; higher than that of copper, silver and gold. But it is less malleable as compared to gold. The metal does not get oxidized at any temperature. But, it gets corroded when it comes in contact with elements like the cyanides, halogens, sulfur and the caustic alkalis. Like the chemical element gold, platinum can be easily dissolved in the acid named as aqua regia. But, the hydrochloric and the nitric acid cannot dissolve platinum. When platinum is dissolved in aqua regia i.e. nitro-hydrochloric acid it results in the formation of the chloroplatinic acid whose chemical formula is H_2PtCl_6 .

Platinum is highly resistant to tarnish. It is a metal that does not wear out easily. Because of these properties, platinum is widely used for making numerous varieties of jewelry and other **accessories** like the **wrist watches**. Platinum is also found to be very useful for industrial applications, since, the metal is a very bad conductor of heat and electricity and it is highly resistant to corrosion.

Platinum occurs very rarely in the nature. The concentration of platinum is only 0.005 percent per meter which equals to 5micro grams per kilogram in the Earth's crust. Native platinum is the form of platinum that occurs in an uncombined state. When it is combined with iridium the alloy is known as platiniridium.

You can find source of platinum and its group metals in the alluvial deposits of the Chocó Department, Colombia. The pre Columbian people also obtained platinum from the same source. The Ural Mountains region of Russia is another large alluvial deposit that is still mined for platinum.

Chromites were discovered in South African region called as Bushveld complex in the year 1865; whereas platinum was discovered in the year 1906. Since then it is the biggest primary reserves of platinum known to man.

Platinum was first used during the early 19th century in the form of platinum powder, as a catalyst to catalyze the explosion of hydrogen. Since then, platinum as platinum **black is**

most commonly used as a catalyst in various chemical reactions. The most important use of platinum is in the automobile applications where it is used as a catalytic converter. Here it supports the complete combustion of the small concentrations of hydrocarbons that are left unburned into water vapor and carbon dioxide. The use of platinum in the petroleum industry is to catalyze the straight run naphthas into higher-octane gasoline that results in the formation of compounds that are rich in aroma.

Questions:

1. **Platinum was discovered in which year?**

- a. 1865
- b. 1906
- c. 1806
- d. 1825
- e. 1907

Correct answer: b

2. **When you combine platinum with iridium, what the resultant alloy is known as?**

- a. Platiniridium
- b. Platiridium
- c. Platina

- d. Platidum
- e. Platinum

Correct answer: a

3. **Name the biggest primary reserves of platinum known to man since its discovery?**

- a. Bushveld complex
- b. Canada
- c. Russia
- d. South Africa
- e. South America

Correct answer: a

4. **When platinum is dissolved in aqua regia i.e. nitro-hydrochloric acid it results in the formation of which acid?**

- a. chloroplatinic acid
- b. Citric acid
- c. Hydrochloric acid
- d. Nitric acid

- e. Sulphuric acid

Correct answer: a

5. **Platinum is used as _____ in the automobiles?**

- a. Catalytic converter
- b. Catalyst
- c. Analyst
- d. Aromatic compound
- e. Fuel

Correct answer: a

Verbal Section : Reading Comprehension Questions

Read the given passage carefully and select the correct answer from the five options given for the following questions.

Drugs are those chemical substances that have many harmful effects on the body. It affects the normal functioning of body and the brain. But, not all drugs are bad for health. There are certain drugs that are beneficial for the body when consumed in appropriate quantity. Medicines are one of these kinds of drugs; but when consumed in large quantities they may prove to be fatal.

Since, the medicines are prescribed by the doctors to the ill and injured these drugs are also known as legal drugs. You find these medical drugs in chemist stores. But you cannot buy them according to your needs. If you do so it is illegal and also not safe for your lives. You need to present a doctor's prescription for the medicine you want to be on the safer side.

Apart from the medicines, there are two more drugs whose use is found to be legal. These two legal drugs are the cigarettes and alcohol. According to the legal rules of the United States, those people who fall under the 18 and over category are permitted to buy cigarettes. Likewise, those people who are of the age 21 and above have the permission to buy alcohol. But, each and every alcohol bottle or can as well as each and every packet of cigarette come with a written warning that these items are injurious to health. Hence, the adults should pay attention to these warnings and avoid excessive drinking for [good health](#).

Now let us have a look at the drugs that not legal. The drugs such as cocaine, heroin, LSD, marijuana, ecstasy and crystal meth fall under the category of illegal drugs. These drugs adversely affect the human bodies and the normal functioning of various important organs such as heart. These drugs can also cause permanent or temporary damage to the brain. Because of these reasons, they are considered as harmful for people of all ages, especially

for the teenagers who are still under growth. For example, cocaine can result in heart attack not only in adults but also in a teenager or a child. Though Marijuana generally belongs to the illegal drugs, doctors in some specific states are allowed to prescribe them to patients suffering from some particular illnesses.

Those children who consume illegal drugs start losing their concentration in studies and other curricular activities such as sports, etc. They tend to choose the wrong direction of life which may prove to be very harmful to the society in future.

Why Do People Use Illegal Drugs?

There may be number of different reasons [for the people](#) of different age and sex to consume illegal drugs. One reason behind the use of drugs by the children is their friend circle. If one of their friends is consuming drugs he/she may influence the remaining one in the group. Some children try drugs out of curiosity or even just for fun.

But, the biggest reason for the adults to use illegal drugs is to escape oneself from the reality for certain period of time. This gradually converts into habit and they are found to become drug addicts. But, one should accept the fact that consuming drugs is not a permanent solution to their problems. Moreover it may create more problems for them in their future. **Questions:**

1. The use of which drug can lead to heart attacks even in children?

- a. Cocaine
- b. Heroin
- c. LSD
- d. Ecstasy
- e. Crystal meth

Correct answer: a

2. Which illegal drug can be prescribed by the doctors in some states for curing the illnesses of the patients?

- a. LSD
- b. Cocaine
- c. Crystal meth
- d. Ecstasy
- e. Marijuana

Correct answer: e

3. According to the legal rules of the United States people of which age group are allowed to buy cigarettes?

- a. 18 and above

- b. 16 and above
- c. 21 and above
- d. 23 and above
- e. 20 and above

Correct answer: a

4. **According to the legal rules of the United States people of which age group are allowed to buy alcohol?**
- a. 18 and above
 - b. 16 and above
 - c. 21 and above
 - d. 23 and above
 - e. 20 and above

Correct answer: c

5. **Apart from the medicines and alcohol, which is a legal drug?**
- a. LSD
 - b. Cocaine
 - c. Crystal meth
 - d. Heroin
 - e. Cigarette

Correct answer: e

Verbal Section : Reading Comprehension Questions

Read the following passage and select the correct answer from the five options given for the following questions based on the passage.

The White House is not only the official residence of the President of the United States, but it is also the principal workplace of the President. All the political officials report their work to the President at the White House only. The White House is situated at 1600 Pennsylvania Avenue NW, in Washington, D.C. The person behind the design and architecture of the White House was an Irish and his name was James Hoban. He started with the construction of this house in the year 1792. It took 8 long years to finish with the complete construction of the White House and was erected by the year 1800. James Hoban made use of Aquia sandstone that was painted with white color. The design of the house was of neoclassical style. John Adams was the first U.S. President who occupied the White House in the year 1800. Since then, every U.S. president has resided in the White House.

In the year 1801, when Thomas Jefferson stepped into the White House, he with his architect Benjamin Henry Latrobe made changes in the outward direction of the house. They created two colonnades that were meant to cover up the stables and the storage space.

At the time of War of 1812, this White House was set on fire by the British Army in the year 1814. Because of this, both the interiors and the exteriors of the mansion were destroyed greatly. But, the reconstruction of the house was started immediately. James Monroe was the first president to move into the reconstructed White House that was still under renovation. He moved into the house in October 1817.

The construction of the White House was not yet complete. The South Portico was added in the year 1824; whereas the North was added in 1829. When President Theodore Roosevelt moved into the house, he saw that the mansion is too crowded since all the executive offices were resided within the mansion itself. Hence, in 1901 he called for the construction of the West Wing and relocated all the work offices [over there](#). After that, when William Howard Taft became the President of the U.S., he called for the expansion of the West Wing and created the first Oval Office. This office was moved with the expansion of the section.

In 1927, the third i.e. the uppermost floor was turned into living quarters by supplementing the existing hip roof with long shed dormers. Following to this a new East Wing was constructed which served as the reception area for carrying out all the social events. These new wings were connected by the Jefferson's colonnades. The alterations to the East Wing in 1946 led to a more spacious office area. But [the wood](#) beams that supported the house internally and the walls that supported the house externally were found to be on the verge of collapse by 1948. To prevent any major damage, the internal frame structure was dismantled completely. A new steel frame with higher load bearing strength was then constructed internally under the supervision of Harry S. Truman.

Today the Executive Residence, West Wing, East Wing, Cabinet Room, Roosevelt Room are all a part of the White House. The Eisenhower Executive Office Building is also a part of the list where the executive offices of the President and Vice President are housed. Also, the White House comprises of six floors namely the Ground Floor, State Floor, Second Floor, and Third Floor. A two-story basement also forms a part of the six storey residence.

Questions:

1. **Name the first U.S. President to move into the White House?**
 - a. George Washington
 - b. John Adams
 - c. Harry S. Truman
 - d. George W Bush
 - e. [Barrack Obama](#)

Correct answer: b

2. **Name the first president to move into the reconstructed White House in October 1817 that was still under renovation?**
- a. James Monroe
 - b. George Washington
 - c. Theodore Roosevelt
 - d. William Howard Taft
 - e. Thomas Jefferson

Correct answer: a

3. **Name the place where the executive offices of the President and Vice President are housed?**
- a. Oval Office
 - b. Executive Residence
 - c. West Wing
 - d. East Wing
 - e. Eisenhower Executive [Office Building](#)

Correct answer: e

4. **In which year was the South Portico added to the White House?**
- a. 1824
 - b. 1829
 - c. 1924
 - d. 1929
 - e. 1948

Correct answer: a

5. **Name the person behind the design and architecture of the White House?**
- a. James Hoban
 - b. George Washington
 - c. Theodore Roosevelt
 - d. William Howard Taft
 - e. Thomas Jefferson

Correct answer: a

This is an example of GMAT reading comprehension questions with the correct choice of answers. Keep a track of our other sections for [GMAT Analytical Writing Assessment](#).

Verbal Section : Sample Critical Reasoning Questions

Critical reasoning questions are a part of the verbal section of the NNPC entrance exam. Each critical reasoning question is composed of three parts namely the statement or an argument, the question and finally the options. There are five choices for each question and you have to select the best option based on the question for that particular sentence.

Let us have a look at some sample questions based on critical reasoning pattern.

1. If you drink beyond the permissible limits then your health benefits are lost and your **health risks** go up.

The statement above logically conveys which of the following?

- a. Consuming more alcohol will be more beneficial for your health
- b. Your health benefits will be lost increasing your health risks if you drink more than the recommended quantity
- c. You can drink more than the allowed quantity and get more health benefits
- d. If you drink more you will get more health benefits and reduce the risks of harming your health
- e. You should not consume more **alcoholic beverages** because it will not be very beneficial

Correct answer: b

2. The non-alcoholic contents of wine, such as flavanoids and resveratrol, serve as **antioxidants** that prevent the "free radicals" or the special type of molecules from damaging the vital body cells.

The statement above would be weakened if it were true that

- a. The non-alcoholic contents of wine such as flavanoids and resveratrol do not act as anti-oxidants
- b. Flavanoids and resveratrol function as anti-oxidants and thus benefit the body
- c. Special type of molecules known as "free radicals" damage the cells in the body
- d. Wine also contains non-alcoholic chemicals along with the alcoholic chemicals
- e. Wine is very harmful if consumed in excess

Correct answer: a

3. Severe smoking can significantly damage the natural capability of the blood vessels to contract and relax.

From which of the following can the statement above be most properly inferred?

- a. There are very harmful effects of severe smoking
- b. You should not smoke at all if you do not want to damage your blood vessels
- c. Our blood vessels have a natural capability to contract and relax which can be damaged to a great extent if you smoke at a high level
- d. In order to prevent any damage to your blood vessels and their natural ability, you should stop acute smoking
- e. The blood vessels have a natural ability to contract and relax

Correct answer: c

4. The geographic origin of the grapes as well as its type and its way of processing play an important role in deciding the nutritional value and the amount of antioxidants in it.

The statement above logically conveys which of the following?

- a. The nutritional value and the antioxidant content of the grapes cannot be determined by its geographic origin
- b. You should consider number of factors in order to find out the quality of the grapes
- c. The quality and the anti-oxidant content of the grapes is decided not only by its geographic origin, but also to which type it belongs and how it is processed
- d. You should eat only well processed grapes because these grapes are rich in anti-oxidants
- e. There are a number of factors that decide the quality and the content of the anti-oxidants in the grapes

Correct answer: c

5. Some scientific researches have proposed that though the content of anti-oxidants in the whole grapes is same as that of grape juice and red wine, they provide the body with additional dietary fibre.

From which of the following can the statement above be most properly inferred?

- a. The whole grapes deliver the same amount of antioxidants that are in grape juice and wine
- b. Consumption of whole grapes have the added benefit of providing the body with dietary fiber

- c. You should always prefer whole grapes over grape juice and red wine because whole grapes not only provide with the same amount of anti-oxidants just as the red wine and the grape juice does, but also provide us with dietary fibre
- d. Unlike the whole grapes, red wine and grape juice cannot provide the dietary fibre
- e. The whole grapes are more superior than red wine and grape juice because of the additional dietary fibre that it provides to the body

Correct answer: c

Based on the condition for each question select the best answer

6. The discovery of a new drug is said to have the ability to predict the Alzheimer's disease before its development and hence the patients of this disease have got a new hope.

The statement above logically conveys which of the following?

- a. The patients of Alzheimer's disease have been offered with a new hope with the discovery of a new drug with the ability to predict the condition before it develops
- b. The scientists have discovered a new drug for treating the patients of Alzheimer's disease
- c. It is the ability of the new drug to predict the disease before it gets developed
- d. The scientists can predict the disease by using the newly discovered drug
- e. Patients suffering from the Alzheimer's disease can now recover completely with the help of the new drug

Correct answer: a

7. You can maintain a normal weight by doing exercises regularly since it helps in utilizing the oxygen causing **the burning** of the fats that are stored in the body.

From which of the following can the statement above be most properly inferred?

- a. Exercises help you in maintaining a normal body weight since they utilize the oxygen to burn the fats that are stored in the body
- b. You can use oxygen to burn the fats that get stored in the body and increase your weight
- c. The fats that are stored in the body can be burned by doing regular exercises
- d. When you do exercise, the oxygen burns the extra fats that are accumulated in the body and thus helps you in maintaining a normal body weight

- e. If you want to maintain a normal body weight then you must do exercises on a regular basis

Correct answer: d

8. It is said that it is very necessary for the girls to work out daily to stay fit and healthy as compared to the boys because, their more muscle mass helps them in burning calories faster and lose weight easily.

The statement above would be weakened if it were true that

- a. Girls have more muscle mass as compared to the guys and hence they can lose weight easily and remain healthy
- b. It is not necessary for the guys to work out at all because they are very strong
- c. Guys are more active than girls and so they do not find it necessary to work out
- d. Girls should work out daily because they are not as strong as the guys
- e. Boys have more muscle mass and hence they burn more calories as compared to the girls and remain healthy

Correct answer: a

9. Statistics show that in comparison to the deaths caused due to diseases like HIV, alcohol as well as accidents, suicides and murders, majority of them are dying because of tobacco consumption.

The statement above would be weakened if it were true that

- a. More number of people are dying because of (HIV)human immune deficiency virus infection
- b. Tobacco is not consumed at all by any person in the world
- c. More number of people are addicted to alcohol consumption
- d. People prefer to consume tobacco rather than committing suicide
- e. You should not consume alcohol and tobacco if you do not want to harm your body

Correct answer: b

10. Coronary heart disease caused by the consumption of tobacco is the main reason for the death of majority of people in the United States.

From which of the following can the statement above be most properly inferred?

- a. Consumption of tobacco leads to coronary heart disease which results in death
- b. Majority of people in the United States die because of coronary heart disease
- c. Majority of people in the United States die because of tobacco consumption
- d. Coronary heart disease is a fatal disease that means it can lead to death
- e. You will die if you consume tobacco in United States

Correct answer: b

Answer the following questions on the basis of the condition asked.

11. One of the most widespread problems of environment is the rapid erosion of soil caused by wind and water affecting both the **natural** environment and the agricultural land.

The statement above logically conveys which of the following?

- a. Soil erosion caused by the wind and water may affect both the areas for agricultural and the natural environment, hence it is one of the biggest of all the environmental problems today
- b. Wind and water cause soil erosion to a very large extent
- c. The problem of soil erosion is the biggest problem of environment today
- d. Wind and water cause soil erosion to a very great extent
- e. Wind and water are responsible for erosion of soil on a large scale creating number of other environmental problems

Correct answer: a

12. The place where the soil erosion takes place degrades the quality and the water holding capacity of the soil greatly since the upper layer of the soil that is very rich in nutrients is carried away by the agents of soil erosion.

The statement above would be weakened if it were true that

- a. Wind and water cannot erode the soil at all
- b. The upper layers of the soil are very rich in nutrients
- c. Soil erosion degrades the quality of the soil to a large extent
- d. Soil erosion decreases the water holding capacity of the soil
- e. Wind and water are the major agents responsible for the large scale soil erosion

Correct answer: a

13. The upper layer of the soil, which is very susceptible to erosion caused by wind and water; is highly responsible for better cultivation of crops.

The statement above logically conveys which of the following?

- a. Wind and water can easily erode the upper layer of soil which is very rich in nutrients thus affecting the **growth of** crops
- b. Crops depend on the upper layer of the soil for their growth
- c. The topmost layer of the soil is very susceptible to erosion caused by wind and water
- d. The topmost layer of the soil is very rich in nutrients
- e. Wind and water decrease the yielding capacity of the soil

Correct answer: a

14. The main off-site effect of soil erosion is that, the deposition of the sediments and other pollutants into the streams of water pollute the sources of water to a great extent.

The statement above would be weakened if it were true that

- a. The movement of sediment and associated pollutants into water do not cause sedimentation in the sources of water
- b. There is no off-site **adverse effect** of soil erosion
- c. Sedimentation improves the fertility of soil
- d. Soil erosion leads to sedimentation not only on land but also in water
- e. the deposition of the sediments and other pollutants into the streams of water pollute the sources of water

Correct answer: a

15. If the rate of rainfall is higher than the rate at which the water penetrates in the soil, the soil particles that are loosened by the rain drops move down the slope causing surface runoff.

The statement above would be weakened if it were true that

- a. The rate of **rain fall** is slower than the rate at which the soil penetrates into the soil
- b. Surface runoff occurs when the rate of rain fall is faster than the rate at which the soil
- c. Rain drops lose the soil particles which results in easy soil erosion
- d. The soil particles that are loosened by the rain drops move down the slope causing surface runoff

- e. The rate of rain fall is not always more than the rate at which the soil penetrates into the soil

Correct answer: a

Read the sentences and answer them according to the question.

16. The terrestrial planets and the asteroid belt found between planets namely Mars and Jupiter are somewhat similar because both of them are composed mainly of rock and metal. The statement above logically conveys which of the following?
- a. Both the terrestrial planets and the asteroid belt existing between the planets Mars and Jupiter are composed of rock and metal
 - b. Terrestrial planets are composed mainly of rock and metal
 - c. Asteroid belt that is found between Mars and Jupiter is composed of rock and metal
 - d. The terrestrial planets and the asteroid belt are one and the same
 - e. There is no difference between the **compositions** of the terrestrial planets and the asteroid belt

Correct answer: a

17. The point at which the pressure from the solar wind is equivalent to the opposing pressure of the interstellar wind is termed as heliopause. From which of the following can the statement above be most properly inferred?
- a. There is no difference the pressure of the solar wind and the pressure of the interstellar wind
 - b. Heliopause is the point where the solar **wind pressure** and the interstellar wind pressure which is the opposing force become equal
 - c. Heliopause is the point where the solar pressure starts differing from the pressure of the interstellar wind
 - d. Solar pressure starts opposing the pressure of the interstellar wind at the point of heliopause
 - e. The pressure of the interstellar wind is equal to the pressure of the solar wind at all points

Correct answer: b

18. The atmospheres of the Venus and Mars deploy into the space gradually by the solar wind because these planets do not have magnetic fields. The argument above would be weakened if it were true that

- a. Venus and Mars do have magnetic fields to protect their atmospheres from the solar wind
- b. Since Venus and Mars do not have magnetic fields, the solar wind can cause damage to their atmospheres
- c. The atmospheres of the Venus and Mars deploy into the space gradually by the solar wind
- d. Magnetic field have the ability to protect the atmospheres of the planets from the solar wind damage
- e. Venus and Mars are those planets that fail to have magnetic fields

Correct answer: a

19. Photovoltaic panels and solar thermal collectors are used by the active solar techniques to bind the solar energy. The argument above assumes that
- a. Active solar techniques are those techniques that waste the solar energy
 - b. Photovoltaic panels and solar thermal collectors have the ability to bind the solar energy
 - c. Active solar techniques do not make use of solar techniques for harnessing the solar energy
 - d. Solar thermal collectors are good collectors of solar energy
 - e. Active solar techniques are not able to tie up the solar energy on its own

Correct answer: b

20. Earth's [water cycle](#) gets completed when the air reaching a low temperature and high altitude condenses the water vapor into the clouds resulting into rainfall on the earth. Which of the following, if true, identifies the greatest flaw in the reasoning above?
- a. The air can reach at high altitude but the temperature is cannot be low at such high altitudes
 - b. Water vapor condenses into clouds resulting into rain onto the Earth's surface
 - c. Air that reaches a low temperature and high altitude area can condense the water vapor into the clouds
 - d. When the air reaches at a high altitude and the temperature is low then it can condense the water vapor into clouds
 - e. The water vapor that gets condensed in the clouds come down in the form of rain

Correct answer: a

Answer the questions according to the conditions:

21. Most transportation fuels are liquids, because vehicles usually require high energy density, which is a property found in both liquids and solids.

Which of the following, if true, identifies the greatest flaw in the reasoning above?

- a. Liquids and solids both have the high energy density characteristic
- b. Most transportation fuels are liquids
- c. Vehicles usually require high energy density so that they can function properly
- d. Most transportation fuels are solid in nature
- e. Since vehicles require high energy density, and liquids possess this property, majority of the transport fuels are in liquid state

Correct answer: d

22. Heat is the main mechanism used in the process of converting the biomass into some other form of chemical energy using the thermal conversion.

From which of the following can the statement above be most properly inferred?

- a. heat is the dominant mechanism for converting the biomass into other forms of chemical in thermal conversion
- b. Thermal conversion is a process which makes use of heat on a large scale
- c. Biomass can be converted into other forms of chemicals with the help of heat
- d. Heat is the main mechanism used for thermal formations of chemical energy
- e. Biomass cannot be converted into other forms of chemicals with the help of heat

Correct answer: a

23. The size of the biomass power plant is mainly dependent on the availability of biomass in close proximity because the transport cost of the large quantities of the fuel is not economical.

Which of the following, if true, identifies the greatest flaw in the reasoning above?

a.

The size of the biomass power plant is totally independent on the availability of biomass in close proximity

- b. Transport cost of the large quantities of the fuel is not economical
- c. The size of the biomass power plant is mainly dependent on the availability of biomass in close proximity
- d. The biomass resources should be available nearby for setting up a biomass power plant
- e. If you want to move the large quantity of fuel from one place to another you will hardly earn any profit

Correct answer: a

24. Since the geothermal fluids cannot reach the high temperatures as that of steam from the boilers, the geothermal electric plants are said to have less thermal efficiency.

The statement above logically conveys which of the following?

- a. The thermal efficiency of geothermal electric plants is very less
- b. The geothermal fluids are not able to reach the high temperatures of steam from the boilers
- c. Geothermal plants are less efficient in comparison of the other energy plants
- d. The efficiency of the geothermal plants is less because the geothermal fluids fail to reach the high temperatures of steam
- e. You cannot boil the geothermal fluids until they form steam with the help of boilers

Correct answer: d

25. With the help of [geothermal heat pump](#) you can extract clean heat in a cost effective manner as compared to the conventional furnaces even from those areas where the ground temperature is less than the room temperature.

The argument above would be weakened if it were true that

- a. Conventional furnaces cannot extract heat cost effectively from the areas where the ground is at low temperature than room temperature
- b. [Geothermal heat pumps](#) extract heat more cost-effective and cleanly than the conventional furnaces
- c. Conventional furnaces can extract heat cost effectively from the areas where the ground is at low temperature than room temperature
- d. The areas where the room temperature is more than the ground temperature, heat can still be extracted with the help of a geothermal heat pump
- e. Geothermal heat pumps are less costly than the conventional furnaces in some cases

Correct answer: c

Answer the questions according to the conditions given below each of them.

26. The longest living organisms on the Earth that also form a part of the Earth's greatest natural resource are the trees

The statement above logically conveys which of the following?

- a. Trees are the longest living organisms on the planet earth
- b. Trees are the only earth's greatest natural resources that are still alive
- c. Trees are not only one of the biggest natural resources on the Earth but they are also the longest living thing on the Earth
- d. Trees not only live long but can also used as natural resource
- e. Trees do not die easily and hence they are existing on the earth since a very long interval

Correct answer: c

27. A tree not only can absorb around 48 pounds of carbon dioxide production per year, but it can also remove one ton of carbon dioxide by the time it attains an age of 40.

The argument above would be weakened if it were true that

- a. Trees can survive for 40 years
- b. Trees do not have the capacity to absorb as much as 48 pounds of the total carbon dioxide that is emitted per year in the atmosphere
- c. Trees are able to remove as much as one ton of carbon dioxide till they grow upto 40 years of age
- d. Trees have the capacity to absorb as much as 48 pounds of the total carbon dioxide that is emitted per year in the atmosphere
- e. Trees are capable of taking in carbon dioxide and giving out oxygen into the atmosphere

Correct answer: b

28. It is found that numbers of disease causing pests are being hosted by the wild roses.

The argument above assumes that

- a. Wild roses are **good for health** and nature
- b. You should plant wild roses instead of domestic and good breeds of rose

c.

There are number of pests and diseases that are found to exist on the wild roses

- d. You should spray pesticides from time to time to keep your wild roses free from germs and disease causing pests
 - e. The germs and pests that exist on the wild roses are very harmful for **the humans** and nature
29. Rose perfumes are made from extract of roses or from rose oil, which is a mixture of volatile essential oils obtained by steam distilling the crushed petals of roses.

From which of the following can the statement above be most properly inferred?

- a. The rose perfumes are made by crushing the rose petals which are then distilled with the help of steam to extract the essential rose oils
- b. The rose petals are steamed to obtain **the essential oils** from it which is then used for making perfumes of roses
- c. The rose perfumes are made when you steam the petals of rose and then distill them to obtain the necessary oils
- d. Rose perfumes are essential rose oils that are obtained from crushed rose petals
- e. For obtaining the essential rose oils you have to steam distill the crushed petals of all **types of roses**

Correct answer: d

30. Though the roses are found to have horny prickles, there are some species that have non-horny prickles and hence the deer's feed on them frequently.

The statement above logically conveys which of the following?

- a. All species of roses have vestigial prickles that are not harmful
- b. Deer's feed on only roses and not any other plant for their food
- c. The prickles of roses are very harmful because they contain poison
- d. Though the roses have prickles but, they do not cause any harm to the deer's and hence they feed on them
- e. Not all species of roses have pointed prickles and hence the deer feed on them frequently

Correct answer: e

Read the condition given below each question and then select the correct answer from the given five choices.

31. Time management does not necessarily mean that you **should do** more work in less time; rather it means how much of the important work you get done in the time that you have.

The argument above would be weakened if it were true that

- a. Time management means that you should always complete more work in less time
- b. Time management means how much of important work are you able to complete in less time
- c. You should do the work with higher priority first
- d. Instead of doing any kind of work you should first try to complete the important tasks
- e. List down the work according to its priority and then begin with their completion

Correct answer: a

32. You must always think properly before initiating with any project or work. This will greatly help you in avoiding wastage of time on unnecessary things.

The statement above logically conveys which of the following?

- a. In order to avoid wasting time in doing unnecessary things, you should first give some time to prioritize all the work and then start working accordingly
- b. It is not necessary to waste time in listing down all the important work
- c. Before starting with any work you must always think on it
- d. If you want to save time then do not start with any work or project before thinking on it
- e. First make a list of all the work and then start acting on it

Correct answer: a

33. To prevent any major damage, the internal frame structure made of wood was dismantled completely. A new steel frame with higher load bearing strength was then constructed internally under the supervision of the architect and engineer.

The argument above assumes that

- a. The internal frame structure of wood was dismantled first before building a more stronger frame structure of steel to prevent any severe damage, under the supervision of architect and engineer
- b. The architect and the engineer first designed the steel frame structure and then dismantled the wooden frame structure
- c. Steel frame structure is more stronger than the wooden frame structure

- e.
- d. You should first dismantle the wooden frame structure and then build a strong frame structure of steel in order to prevent any damage

The steel frame structure was designed to prevent any damage from [the breaking](#) of the wooden frame structure

Correct answer: a

34. Since, the medicines are prescribed by the doctors to the ill and injured these drugs are also known as legal drugs.

Which of the following, if true, identifies the greatest flaw in the reasoning above?

- a. Medicines are known as legal drugs because they are prescribed by the doctors for treating the patients and curing their illness
- b. Medicines are prescribed by the doctors so that the patients get addicted to them and become drug addicts
- c. Medicines fall under the category of legal drugs because they are used for curing the patient's illness
- d. Medicines are known as legal drugs because they are prescribed by the doctors
- e. Doctors prescribe medicines for curing patients and hence they are called as legal drugs

Correct answer: b

35. Though Marijuana generally belongs to the illegal drugs, doctors in some specific states are allowed to prescribe them to patients suffering from some particular illnesses.

From which of the following can the statement above be most properly inferred?

- a. Marijuana is an illegal drug which is also prescribed by the doctors in some states for curing some special types of disorders
- b. Marijuana is not prescribed by the doctors even though it is useful for treating certain disorders
- c. Not all [the states](#) allow their doctors to prescribe Marijuana to the patients suffering from some particular illnesses
- d. Doctors in some states make use of Marijuana which generally belongs to the illegal drugs
- e. Patients suffering from some particular illnesses are allowed to consume one of the illegal drug named Marijuana

Correct answer: a

Read the **condition** given below each question and then select the correct answer from the given five choices.

36. The couple committed suicide in order to avoid the arrest by the Red Army.

The statement above logically conveys which of the following?

- a. The couple knew that they are going to be arrested by the Red Army and hence they committed suicide to avoid this situation
- b. The red Army was going to kill the couple and so they committed suicide instead of getting killed by them
- c. The couple gave away their lives by committing suicide
- d. The Red Army forced the couple to commit suicide
- e. Instead of dying in the arrest of Red army the couple decide to die by committing suicide

Correct answer: e

37. She was well known for her unique courageous and unselfish qualities of charity and hard work.

38. Out of all the planets that are observable, it is confirmed that the global ocean of the planet earth is the largest surface ocean.

Which of the following, if true, identifies the greatest flaw in the reasoning above?

- a. The global ocean of the planet earth is the largest surface ocean as compared to the surface oceans of all the planets
- b. The global ocean of the planet earth is the largest observable surface ocean as compared to the surface oceans of all the planets
- c. Earth is the only planet that is observable from all the other planets
- d. Evidences have confirmed that the global ocean of the planet earth is the largest surface ocean
- e. Out of all the global oceans, the global ocean of the planet earth is the largest surface ocean

Correct answer: c

39. Though the origin of the oceans of the earth is still not known, it is believed that they appeared first in the Hadean period and this might have been the point where life came to origin from.

Which of the following would reveal most clearly the absurdity of the conclusion drawn above?

g.

- a. The Hadean Period is not the actual time period which is considered to be the origin of the oceans of the earth

- b. When the oceans of the earth were discovered, this point of time found to be where life came to existence
- c. Life did not exist until the discovery of the oceans of the earth
- d. It is believed that the oceans of the earth appeared first in the Hadean Period
- e. The Hadean Period is said to be the actual origin of the oceans of the earth which marks the point where life came to existence first

Correct answer: a

40. The domestic as well as the foreign policies of Hitler were designed with the aim of seizing **the living space for the people** of Germany.

The argument above would be weakened if it were true that

- a. The living space for the people of Germany was seized by the domestic as well as the foreign policies of Hitler
- b. Both the domestic and the foreign policies of Hitler were designed with the aim of seizing the living space for the people of Germany
- c. Hitler wanted to rule the lives of all the Germans and so he designed his policies to accomplish this aim
- d. Both the domestic and the foreign policies of Hitler were designed with the aim of improving the living space for the people of Germany
- e. The Germans were unhappy because of the strict policies of Hitler

Correct answer: d

Read the condition given below each question and then select the correct answer from the given five options.

41. Though the contraceptive pills are beneficial for clearing spots and marks, they are proved to cause inconvenient and even dangerous side effects.

Which of the following would reveal most clearly the absurdity of the conclusion drawn above?

- a. Contraceptive pills are good for skin and health
- b. The contraceptive pills are beneficial for cleaning the spots and marks on our face and improve its look
- c. It is not good to consume the contraceptive pills because they prove to cause dangerous and harmful side effects
- d. You should avoid consumption of contraceptive pills as they are not good for our health
- e. In order to get rid of the spots and marks, consuming contraceptive pills is also an option

Correct answer: a

42. Manuka honey is very good for our skin because of its antimicrobial and antiseptic properties to fight against spots and its ability to reduce the scarring and marks left by spots.

From which of the following can the statement above be most properly inferred?

- a. Manuka honey is very good for our skin
- b. Because of the antimicrobial and antiseptic properties to fight against spots and the ability to reduce the scarring and marks left by spots, Manuka honey is considered to be very good for our skin
- c. The purpose of antimicrobial and antiseptic properties is to fight against spots
- d. Manuka honey has the property to reduce the scarring and marks left by the spots
- e. Reduce the scarring and marks left by spots is one of the many properties of Manuka honey

Correct answer: b

43. If you wish to have a good skin tone and texture then you should always go for an anti-ageing foundation which is water based and not oil based since it is lighter and also has a high moisturizing content and SPF.

The argument above would be weakened if it were true that

- a. Oil based foundations are heavier as compared to the water based foundations
- b. Water based foundations are heavier as compared to the oil based foundations
- c. Oil based anti ageing foundations hamper the tone and texture of the skin
- d. The anti ageing foundations should not only be water based but, they should also have a high moisturizing content and SPF
- e. For good skin tone and texture, select such anti ageing foundation which is not only water based but also has a high moisturizing content and SPF

Correct answer: b

44. An anti-ageing primer with SPF not only provides with a smooth finish, but it also easy to apply and serves as a very good base for make-up and also protects your skin from any side effects.

Which of the following, if true, identifies the greatest flaw in the reasoning above?

- a. Using an anti-ageing primer with SPF gives a smoother finish to your skin

- b. Good anti-ageing primer makes for an effortless make-up application and also protects your skin, since it requires little blending
- c. Anti-ageing primer with SPF does not blend easily on the skin and cause spots and marks on the skin
- d. Before applying any make-up if you apply a moisturizer with SPF then it will protect your skin from the side effects of the cosmetics
- e. Applying an anti-ageing primer with SPF can provide you with a very good base for any type of make-up

Correct answer: c

45. The best way for application of a concealer is to gently drive the product in by patting it into the skin with the help of fingers until it blends in smoothly.

Which of the following would reveal most clearly the absurdity of the conclusion drawn above?

- a. Well applied concealer gives your skin a very good and even tone and texture
- b. If you don't apply the concealer with your fingers, it will leave with an uneven and patchy look
- c. If you make use of fingers for applying the concealer it gives a smooth and even finish to your make-up
- d. The best way to apply concealer is to pat it gently with your fingers and cover the spots and patches
- e. If you pat the concealer with the help of fingers it spreads very easily and gives a smooth finish

Correct answer: b

Below each question there is a separate condition, read this condition and then select the correct answer from the given five options.

46. You should clearly understand the food habits which are responsible for causing diabetes since, the beginning of the disease can be prevented if we consume proper type of food.

From which of the following can the statement above be most properly inferred?

- a. You can avoid the development of diabetes by having a sound knowledge of **good food** and correcting your food habits
- b. You should have a proper knowledge regarding the good and the bad food habits
- c. If you are aware of the fact that diabetes can be prevented by correcting the food habits then you can easily change your diet

- d. If you want to prevent the proper level of sugar in the blood then you should change and correct your bad habits
- e. You should avoid those food stuffs that can cause diabetes

Correct answer: a

47. Though the **medical aids** such as drugs and hormone supplement injections are often critical for managing cases where diabetes seems to have turned into an incurable condition, it is always better to seek natural cures.

The argument above assumes that

- a. Natural cures are always better than using medical treatments like the drugs and injections of insulin for curing diabetes when it has turned into incurable condition
- b. When diabetes reaches to an incurable level you should go for medical aids such as drugs and insulin injections
- c. Medicines and drugs are used for curing the incurable diabetes when all **the natural** treatments have failed
- d. When medical aids fail to cure diabetes you should go for the natural cures
- e. It is always better to seek natural cures

Correct answer: a

48. In order to negate the rigorous fluctuations in the levels of insulin in the body, you should eat fruits because they contain a lot of fiber and hence reduce the release of sugar into the bloodstream.

Which of the following would reveal most clearly the absurdity of the conclusion drawn above?

- a. Consumption of fibrous foods reverses the rigorous fluctuations in the levels of insulin
- b. Fruits contain a lot of fiber and hence reduce the release of sugar into the bloodstream
- c. Fruits are very rich sources of fibre and hence they help in reducing the blood sugar level and deal with diabetes
- d. The content of fibers is very less in fruits and hence the diabetic patients should avoid its consumption in large amounts
- e. The diabetic patients should consume more fruits because it will help in maintaining the level of sugar in their blood since they are rich sources of fibers

Correct answer: d

49. Even the health conscious people have the misconception that fats whether good or bad are always bad for health and so they stop consuming good as well as bad fats.

Which of the following would reveal most clearly the absurdity of the conclusion drawn above?

- a. There is a common misconception even among health conscious folks that all fats are bad
- b. To stay away from fats people have stopped consuming both the good and the bad fats that can cause diabetes
- c. All types of fats, whether good or bad are responsible for causing diabetes and hence you should avoid the foods that contain fats
- d. You should consume fruits everyday in order to maintain proper balance of sugar in the blood stream
- e. Since fruits are very rich in fibers, you must try to include them in your daily diet

Correct answer: c

50. Eating sweets like cakes and desserts after dinner particularly just before going to bed is very bad for health and could prove to be your stepping stone towards diabetes.

Which of the following, if true, most seriously jeopardizes the validity of the argument by the speaker above?

- a. Eating sweets like cakes and desserts after dinner particularly just before going to bed is very good for health
- b. You should not eat heavy desserts after dinner because this habit may lead to diabetes
- c. If you eat sweets and desserts at night just before going to bed it may prove to be very harmful [to your health](#)
- d. Eating sweets and heavy desserts at night is not a healthy habit at all
- e. Do not eat sweets and desserts at night

Correct answer: a

Below each question there is a separate condition, read this condition and then select the correct answer from the given five options.

51. Salads prepared from green vegetables and sprouts are very nutritious and a good anti-diabetic food because they contain a lot of fiber which takes a very long time to be digested fully.

Which of the following, if true, identifies the greatest flaw in the reasoning above?

- a. The salads prepared from green vegetables and sprouts are very nutritious and a good anti-diabetic food
- b. The salads prepared from green vegetables and sprouts contain a lot of fiber
- c. Fibrous foods take very long time to get digested completely
- d. The salads prepared from green vegetables and sprouts are very nutritious but they are not at all good for diabetic patients
- e. Fibrous foods are very for diabetic patients since it takes time to digest them and hence maintains the blood [sugar level](#)

Correct answer: d

52. Drinking plenty of water ensures proper functioning of kidneys and gets rid of toxins that hamper our metabolism.

Which of the following would reveal most clearly the absurdity of the conclusion drawn above?

- a. Sufficient water intake ensures that kidneys are able to function properly
- b. To get rid of toxins and improve the rate of metabolism you must drink sufficient amount of water
- c. Drinking plenty of water ensures proper functioning of the stomach and bones
- d. Drinking sufficient amount of water is very good for proper functioning of the kidneys
- e. Drinking water improves the metabolism

Correct answer: c

53. Skipping breakfast is not a good habit because it is like pushing yourself towards the lifestyle problems like obesity and diabetes.

Which of the following, if true, most seriously jeopardizes the validity of the argument by the speaker above?

- a. It is not a [good food](#) habit to skip your breakfast
- b. Skipping your breakfast can lead you towards obesity and disorders like diabetes
- c. You can skip breakfast and instead of that take lunch a bit early
- d. Skipping breakfast may prove to be very harmful to health
- e. Breakfast is the most important of all meals of the day

Correct answer: c

54. Excessive intake of proteins may also lead to health problems like diabetes.

The statement above logically conveys which of the following?

- a. Eating more protein makes you muscular and healthier
- b. Proteins are essential for the body tissues
- c. If you consume proteins in excess it may cause diabetes
- d. Proteins are very good for health but, if they are consumed in excessive quantities then it may lead to diabetes
- e. Proteins cannot cause diabetes

Correct answer: d

55. Packaged and sweetened fruit juices leads to more intake of refined sugar as compared to the fresh juices.

The argument above assumes that

- a. Packaged and sweetened fruit juices contain more refined sugar than the fresh fruit juices
- b. Fresh fruit juices are more beneficial as compared to the packaged and artificially sweetened fruit juices
- c. The percentage of refined sugar is more in the packaged and sweetened fruit juices
- d. The amount of sugar is less in the freshly prepared fruit juices
- e. If you consume packaged fruit juices more, then the content of refined sugar will be more in your body

Correct answer: a

Read the separate condition given below each statement and then select the correct answer from the following five options.

56. Women want to be financially stable in their careers and hence don't jump into motherhood till they are mentally prepared for it.

Which of the following, if true, identifies the greatest flaw in the reasoning above?

- a. Women don't want to depend on others and so they want to become financially stable before they get married
- b. Majority of the women try to avoid motherhood until they are mentally prepared for the same
- c. Women should avoid motherhood until they become financially independent

- d. Most of the women of today do not want to become a mother until they financially independent
- e. It is important for the women to be mentally prepared for handling the responsibilities of being a mother

Correct answer: c

57. The film featured lots of animated characters and also a child actress named Virginia Davis who played the leading role in the film.

From which of the following can the statement above be most properly inferred?

- a. The film featured lots of animated characters
- b. The leading role was played by a child actress whose name was Virginia Davis
- c. The leading role was played by Virginia Davis, a child actress then, in the film that featured lots of animated characters
- d. Virginia Davis is a child actress
- e. There were lots of animated characters in the film

Correct answer: c

58. Obama chose the Old [State Capitol](#) building in Springfield, Illinois as the place for his announcement because this was the place where Abraham Lincoln made his famous "House Divided" speech in the year 1858.

Which of the following, if true, most seriously jeopardizes the validity of the argument by the speaker above?

- a. Abraham Lincoln made his famous "House Divided" speech in the year 1858 at the Old State Capitol building in Springfield, Illinois
- b. Obama chose the Old State Capitol building in Springfield, Illinois as the place for making his announcement
- c. Abraham Lincoln and Barack Obama gave their famous speeches at the Old State Capitol building in Springfield, Illinois
- d. The place that was chosen by Barack Obama was very special since, this was the place where Abraham Lincoln made his famous "House Divided" speech in the year 1858
- e. The famous "House Divided" speech was delivered by Abraham Lincoln

Correct answer: c

59. People who consume alcohol in moderate quantities are less likely to suffer with the problem of [enlarged prostate](#).

The argument above would be weakened if it were true that

- a. People who consume alcohol in moderate quantities are more likely to suffer with the problem of enlarged prostate
- b. Alcohol when consumed in moderate quantity can prove to be beneficial
- c. In order to get benefited from alcohol you should consume alcohol moderately
- d. The problem of enlarged prostate is seen less in moderate consumers of alcohol
- e. It is good to consume alcohol only in small amount

Correct answer: a

60. Since the diamonds have a very firm lattice structure they are less likely to get contaminated by some of the rare types of impurities that include chemicals like nitrogen and boron.

Which of the following, if true, identifies the greatest flaw in the reasoning above?

- a. The lattice structure of diamonds is not firm at all and hence it is very susceptible to impurities
- b. Since the lattice structure of diamonds is very firm they are less likely to get contaminated
- c. Because of the firm lattice structure, diamonds do not get contaminated easily
- d. Nitrogen and boron cannot cause impurities in diamonds because of its firm lattice structure
- e. Diamonds are pure in nature because of their firm lattice structures

Correct answer: a

Read the separate condition given below each statement and then select the correct answer from the following five options.

61. Though the diamonds have less chances of having any impurities, certain minute defects would result in diamonds of many different colors.

Which of the following, if true, identifies the greatest flaw in the reasoning above?

- a. There are very less chances for the diamonds to be impure
- b. Even small impurities can cause variety of color changes in the diamonds
- c. The diamonds get different colors because of slight impurities in it
- d. Since the diamonds are very prone to impurities, they cannot exist in white color in nature

- e. Pure diamonds are white in color whereas diamonds with small defects are colorful

Correct answer: d

62. Diamonds are provided with a unique luster because of their characteristic to cause dispersion of light on a large scale.

Which of the following, if true, most seriously endangers the validity of the argument by the speaker above?

- a. The property of the diamond to cause dispersion of light into different colors provides it with a unique luster
- b. Diamonds cannot cause dispersion of light
- c. The diamond have a unique luster that is provided to it naturally
- d. Diamonds have the property to cause dispersion of light into different colors
- e. Optical dispersion is one of the properties of diamonds that gives it a unique lustrous look

Correct answer: b

63. Because of the development of so many varieties for diamonds such as [the natural diamonds](#), synthetic diamonds and the diamond simulants, special gemological techniques have been developed in order to differentiate between them.

The statement above logically conveys which of the following?

- a. Gemological techniques have been developed in order to differentiate the natural diamonds from the synthetic diamonds and the diamond simulants
- b. The different categories that diamonds exist in are namely the natural diamonds, synthetic diamonds and the diamond simulants
- c. Synthetic diamonds and the diamond simulants are the two types of natural diamonds
- d. You can make out the natural diamonds from the [collection](#) of synthetic and diamond stimulants with the help of gemological techniques
- e. The development of synthetic diamonds and diamond stimulants have led to the development of gemological techniques

Correct answer: a

64. Because of the high costs of [the metal silver](#) it has not been replaced for the use copper in the manufacturing of the electric wires.

From which of the following can the statement above be most properly inferred?

- a. Copper wires are very **cheap and** economical as compared to the silver wires
- b. Since copper metal is very cheap than the metal silver, the electric wires are made using copper instead of silver
- c. Though silver is more better conductor of electricity than copper, but because it is more costly than copper, it is not used in the making of electric wires
- d. Because of the high costs of the metal silver it has not been replaced for the use copper
- e. Copper is used for making electric wires as it is not only cheap but also a very good conductor of electricity

Correct answer: c

65. Though silver is somewhat more hard in nature than gold, it is still very flexible and hence it can be easily casted into any shape as compared to gold.

Which of the following, if true, identifies the greatest flaw in the reasoning above?

- a. Silver is harder than gold and hence ornaments are made of gold instead of silver
- b. It is easy to mould silver into any shape in comparison to copper because of its flexible characteristic
- c. Silver is more hard but more flexible than gold
- d. It is difficult to mould gold into different shapes as compared to silver because it is less flexible than silver
- e. Since silver is more flexible than the element gold, it is easy to caste it into any desired shape

Correct answer: a

Read the condition and then answer the questions according to them by selecting the correct option from the following five options.

66. When compounds of silver get stuck up into the circulatory system, **it leads** to grey colored pigmentation of the skin and mucous membranes. This disease is known as argyria.

Which of the following, if true, most seriously jeopardizes the validity of the argument by the speaker above?

- a. Silver compounds are very harmful and may also prove fatal to health
- b. The grey coloration of the skin and the mucous membranes are a result of sticking of compounds of silver into the circulatory system and this disease is known as argyria

- c. In the disease called as argyria you may come across the [symptoms](#) such as development of grey color pigments on the skin and mucous membranes
- d. When compounds of silver get stuck up into the circulatory system, it leads to a disease called as argyria
- e. Compounds of silver get stuck in the circulatory system and result into a disease known as argyria

Correct answer: b

67. The property of nitric acid to dissolve silver and other base metals but not gold also known as acid test is found to be very useful to detect traces of gold in various items that are said to have gold in it.

Which of the following, if true, most seriously jeopardizes the validity of the argument by the speaker above?

- a. The property of nitric acid to dissolve silver and other base metals but not gold is found to be very useful to detect traces of gold
- b. Nitric acid has a unique property to dissolve gold and other base metals except for silver
- c. You cannot dissolve gold in nitric acid and this acid is used to detect traces of gold in [gold items](#) and accessories
- d. The method of using nitric acid to detect presence of gold in any of the item made from gold is known as acid test
- e. Nitric acid has a unique property of dissolving silver and other base metals in it except for gold

Correct answer: b

68. Since, gold can powerfully reflect the red and the yellow color, when you transmit light through gold the resulting light has a greenish blue appearance.

From which of the following can the statement above be most properly inferred?

- a. When you transmit light through gold the resulting light has a greenish blue appearance
- b. Gold can powerfully reflect the red and the yellow color
- c. The light that is transmitted through gold appears greenish blue, because gold can strongly reflect yellow and red colors
- d. When you transmit light through gold it appears greenish blue in color
- e. It is a unique property of gold to strongly reflect the colors yellow and red

Correct answer: c

69. A scientific study suggested that consuming dark chocolate every day for a period of 10 years could reduce the chances of heart attacks and strokes in certain high-risk patients.

Which of the following, if true, is the most appropriate reason for people to eat dark chocolates?

- a. People eating dark chocolates have a very healthy heart
- b. Eating dark chocolates everyday for continuous period of 10 years can greatly reduce the chances of heart strokes in case of certain high-risk patients
- c. Dark chocolate is very beneficial for having a strong and healthy heart
- d. Dark chocolates do not contain bad fats
- e. Dark chocolates can help in dealing with the problem of heart attacks

Correct answer: b

70. There's no point trying to negotiate on your salary before you have the job offer; since it is not confirmed that the employer has decided to hire you.

Which of the following would reveal most clearly the truth in the conclusion drawn above?

- a. Do not negotiate on the salary till you are not sure about whether the employer has selected you or not
- b. Before negotiating on the salary make sure that you are selected by the employer for that particular job
- c. It is of no use to negotiate on the salary until you are assured that the employer has decided to hire you for the job
- d. Negotiate on your salary after you are sure that you are hired by the employer for the job
- e. Do not take the job until the employer negotiates on the salary

Correct answer: c

Read the separate condition given below each statement and then select the correct answer from the following five options.

71. Except for a few things you can do almost everything on the internet ranging from handling your finances to ordering snacks, [taking care of business](#) and socializing with friends in today's modern age.

From which of the following can the statement above be most properly inferred?

- a. There are very few things that you cannot do on the Internet

- b. You can not only handle your finances or order a pizza using the Internet but it is also a convenient means to take care of your business and socialize with friends
- c. Internet is useful for almost everything in today's age
- d. Except for a few things you can use internet for carrying out almost any function of the modern gadget age
- e. Except for a few things you can do almost everything on the internet

Correct answer: b

72. Though the salary sites can answer almost any query related to salaries, these sites are not completely reliable, in part because the job titles they list often represent wildly many different levels of responsibility.

Which of the following, if true, is the most appropriate reason for people NOT to participate in the program?

- a. You can always refer the salary sites for any of your queries related to the salary in your field
- b. Though the salary sites are very informative they are not the most reliable source to find out the answers to your queries related to the salary in your field
- c. You should not refer the information provided by the various salary sites
- d. The information provided by the salary sites are not upto the mark
- e. The job titles listed by the various salary sites represent many different levels of responsibility and hence you should not refer these sites

Correct answer: b

73. Some candidates announce their salary requirements in their cover letters without being asked, and some even include their salary history on their resumes. There's no reason to talk money at this stage.

74. Though the biggest cause responsible for yellow and brittle nails is fungal infection, leaving on nail polish too long can also [result in](#) a similar outcome.

From which of the following can the statement above be most properly inferred?

- a. Fungal infection is the biggest culprit for causing yellow and brittle nails
- b. Leaving on nail polish too long can also result in yellow and brittle nails
- c. Though the main reason for yellow and brittle nails is fungal infection, it is also cause if you leave nail polish for a long period of time

- d. It is the fungal infection that results in yellow nails that break easily
 - e. If you leave nail polish for very long time then your nails will become yellow and break very easily
75. If you have brittle nails that are prone to breakage, then you can camouflage this by opting for artificial gel, because gel-based **artificial nails** are the best solution for women whose nails refuse to grow.

Which of the following, if true, most seriously jeopardizes the validity of the argument by the speaker above?

- a. Gel-based artificial nails are the best solution for women whose nails refuse to grow
- b. Brittle nails are prone to breakage
- c. Gel-based artificial nails are the best solution for women with brittle nails
- d. Using gel based artificial nails makes your nails yellow and brittle
- e. If you have brittle nails then you can camouflage this using artificial gel, because gel-based artificial nails are the best solution for women with such type of nails

Correct answer: d

Select the correct answer for each question from the five options given for each statement.

76. You should not mention anything about the salary requirements in the cover letters and the resumes until it is asked to be included by the employer

From which of the following can the statement above be most properly inferred?

- a. Unless the employer has asked you to mention your salary expectations you must not include anything about it in your resume or the cover letter
- b. Employers often reject those candidates who mention their salary expectations in their cover letters or resumes unnecessarily
- c. It is not at all professional to mention your salary expectations in your cover letters and resumes unless it is asked
- d. It is good to mention the expected salary in **your cover letter** and resume
- e. Do not mention anything related to salary in your resume and cover letter

Correct answer: a

77. If you are not extra-vigilant, you can fall prey to temptation and find yourself spending your hard-earned money at a store online. There are many tips you can use to help avoid the temptation to overspend online.

The argument above assumes that

- a. Majority of people fall prey to online shopping very easily
- b. You must try to avoid the temptation to overspend online because it is very addictive
- c. Online shopping is better than onsite shopping
- d. There are many tips you can use to help avoid the temptation to overspend online
- e. You can fall prey to temptation and find yourself spending your hard-earned money at a store online if you are not very vigilant

Correct answer: b

78. While going for online payment option make sure that you have enough **balance in your account** for payment of all the bills else you yourself will be responsible for any other fees or interest incurred.

The argument above would be weakened if it were true that

- a. It is not at all necessary to have enough of balance in your bank account if you are going for online payment of all your bills
- b. You always need to make sure you have the total of the bill in **your account** before going for online payment
- c. Online payment is not a good option at all
- d. If you don't have enough balance in your account then you will be responsible for all the extra charges incurred
- e. Check your balance before paying the bills online

Correct answer: a

79. The skin around the knees and elbows is thicker as compared to other body parts and therefore it tends to have more pigment than the rest of our body

From which of the following can the statement above be most properly inferred?

- a. In comparison to the rest of our body, the skin around the knees and elbows is thicker and stronger
- b. In comparison to the rest of our body, the skin around the knees and elbows is very dirty
- c. In comparison to the rest of our body, the skin around the knees and elbows is very fair and strong

- d. In comparison to the rest of our body, the skin around the knees and elbows is very weak
- e. In comparison to the rest of our body, the skin around the knees and elbows is thicker and tends to have more pigment

Correct answer: e

80. You can lighten the pigmentation with the help of whitening peels since it is not always possible to completely wipe away all the pigmentation.

Which of the following, if true, most seriously jeopardizes the validity of the argument by the speaker above?

- a. It is not always possible to completely wipe away all the pigmentation
- b. You can lighten the pigmentation with the help of whitening peels
- c. You can easily wipe out all the pigmentation with the help of whitening peels
- d. With the help of whitening peels you can lighten the pigmentation
- e. Some amount of pigmentation will always be there even if you try to wipe out all of it with the help of whitening peels

Correct answer: c

Read the separate condition given below each statement and then select the correct answer from the following five options.

81. Salary is only one part of a compensation package; you also need to factor in benefits like healthcare, retirement contributions, and paid leave.

The statement above logically conveys which of the following?

- a. The factors that you should consider while looking for a good salary job with good compensation package are number of paid leaves and health benefits such as healthcare and retirement
- b. You also need to consider benefits like healthcare, retirement contributions, and paid leave while looking a good salary
- c. While looking out for compensation package look out for good salary
- d. You should look for good compensation package before accepting the job offer
- e. Do not accept the job if the company is not providing you with good compensation package

Correct answer: a

82. The body odor is not the result of **excessive sweating** always; the type of food that you have can also be a reason behind it.

From which of the following can the statement above be most properly inferred?

- a. Excessive sweating results in a **bad breath**
- b. Body odor is a result of excessive sweat
- c. Not only the amount of sweating but also the type of food is responsible for body odor
- d. Body odor is a result of both food and sweat
- e. Eat **good food** to avoid body odor

Correct answer: c

83. Though the red meat looks very delicious on the plate; it takes a long time to digest and hence regular intake of it can result in the foulest body odor.

Which of the following, if true, most seriously jeopardizes the validity of the argument by the speaker above?

- a. The red meat is very good for health but it can lead to the foulest body odor
- b. Red meat is very easy to digest and hence you should eat it regularly for increasing **your rate** of metabolism
- c. Red meat is a food that leads to very bad body odor
- d. Try not to eat red meat at night because it is very hard to digest
- e. Digestion of red meat takes a very long time as compared to the sea food and other eatables

Correct answer: b

84. If you want to have very good sleeps at night then prepare heavy and large meals for the dinner.

Which of the following would reveal most clearly the absurdity of the conclusion drawn above?

- a. In order to get a high quality sleep at night you should prepare light and small meals for the dinner
- b. Prepare heavy and large meals for the dinner if you want to have good and sound sleep at night
- c. It is very necessary to have a very good sleep at night to feel fresh the next morning
- d. Having a high quality sleep at night ensures beginning of a fresh and lively morning
- e. A high quality sleep is very important for good health

Correct answer: b

85. Since nicotine acts as a stimulant it can keep you away from falling asleep which will ultimately result in worsen insomnia.

Any of the following, if introduced into the argument as an additional premise, makes the argument above logically correct EXCEPT:

- a. Nicotine results in sleep disorder because of it acts as a stimulant
- b. Excess of Nicotine is injurious to health
- c. Do not consume nicotine in the afternoon because it affects the sleep
- d. Nicotine is one of the drugs that affects your sleep and hence results in insomnia
- e. Nicotine is very good for health

Correct answer: e

Read the separate condition given below each statement and then select the correct answer from the following five options.

86. Though the caffeine contents of the coffee help you in fighting laziness, it increases the acidity in your body and leaves you with a very **bad breath**.

Which of the following, if true, most seriously jeopardizes the validity of the argument by the speaker above?

- a. Coffee gives you bad breath because it increases the acidity in your body and the caffeine helps you fight laziness but leaves a bad smell in your mouth
- b. The caffeine contents of the coffee do not help you in fighting laziness
- c. Drink coffee whenever you feel lazy
- d. Having a cup of coffee can leave a very bad smell in your mouth
- e. Coffee increases the acidity in your body and leaves you with a very bad breath

Correct answer: b

87. The protein contents of all the dairy products on absorption break down into sulphurous by-products which are responsible for leading to bad breath.

From which of the following can the statement above be most properly inferred?

- a. The protein contents of dairy products break down into sulphurous byproducts when they are absorbed and cause bad breath
- b. All types of dairy products cause bad breath
- c. Dairy products contain proteins
- d. Stop drinking milk and all other dairy products because they result in bad breath
- e. Bad breath is a result of dairy products

Correct answer: a

88. Apart from being the most relaxing end to a long day, sleeping also has multiple health benefits.

The statement above logically conveys which of the following?

- a. Sleeping has a lot of health benefits
- b. Sleeping is considered as the most relaxing end to a long tiring day
- c. After a long tiring day you must sleep for hours
- d. Sleeping is not only the most relaxing end to a long tiring day but it also very beneficial for health
- e. When you come back **home** after a long tiring day, it is necessary to sleep for some time

Correct answer: d

89. In the case of sleep deficiency disorder, the body's functions enter a state of high alert, and result in an increase in blood pressure and thus increasing the risk of heart attacks and strokes and production of stress hormones making it difficult to sleep.

From which of the following can the statement above be most properly inferred?

- a. The higher blood pressure elevates the risk of heart attacks and strokes
- b. Production of stress hormones make it very difficult to sleep
- c. Sleep deficiency results in high blood pressure and release of stress hormones which ultimately increases the chances of heart attacks and also decreases the sleep time
- d. All the body's functions enter a state of high alert in case of sleep disorder
- e. Sleep deficiency disorder increases the rate of release of stress hormones and heat attacks

Correct answer: c

90. Good and sound sleeps help you to process information and perform better because **the brain** processes any new knowledge, organizes the skills learned while awake, makes connections between sensory inputs while you are asleep.

Which of the following, if true, most seriously jeopardizes the validity of the argument by the speaker above?

- a. Good sleep help you to process information faster and perform much better
- b. In order to improve your performance you should keep on sleeping
- c. Your brain makes connections between sensory inputs while you are asleep
- d. The brain processes any new knowledge, organizes the skills learned while awake, makes connections between sensory inputs while you are asleep
- e. For improving your performance level it is very necessary to have a good sleep

Correct answer: b

Read the separate condition given below each statement and then select the correct answer from the following five options.

91. To have a good and strong heart it is necessary to have seven to eight hours of sleep.

Which of the following would reveal most clearly the seriousness of the conclusion drawn above?

- a. Seven to eight of sound sleep helps in having a good cardiovascular health
- b. Sleep well in order to stay fit and fine
- c. Good sleep is very essential for a very [good health](#)
- d. Improper and inadequate sleep may [result in](#) increase in problems related to heart and blood vessels
- e. Good sleep is the key to a healthy heart

Correct answer: d

92. One of the most important benefits of good and sound sleep is that it helps in maintaining the level of stress hormone in check.

Any of the following, if introduced into the argument as an additional premise, makes the argument above logically correct EXCEPT:

- a. If you don't sleep well then it results in sleep deficiency which increases the production of stress hormones and hence makes it more difficult to sleep
- b. Sleep hormones make it more difficult to sleep
- c. Sleep hormones are responsible for sound sleep
- d. If sleep hormones are released in excess then they make sleep more difficult

- e. It is necessary to keep the level of stress hormones in check because excess of it affects the duration of our sleep

Correct answer: c

93. It is essential to sleep for seven to eight hours because the body cells produce more protein when you are asleep, which helps the body to recover from damage caused by stress and other harmful exposures such as ultraviolet radiation.

Which of the following, if true, most seriously jeopardizes the validity of the argument by the speaker above?

- a. It is essential to sleep for seven to eight hours because the body cells produce more protein while you're asleep
 - b. Proteins help the body to recover from damage caused by stress and other harmful exposures
 - c. Cells in the body produce more proteins while you are asleep
 - d. Since the cells in the body produce more proteins while you are awake, you should try not to sleep for very long time
 - e. In order to maintain the level of proteins you should not only have protein rich food but also have a good sleep
94. Both the sleep and the rate of metabolism are controlled by the same part of [the brain](#); so to maintain your body weight it is very important to have adequate sleep.

From which of the following can the statement above be most properly inferred?

- a. Both the sleep and the rate of metabolism are controlled by the same part of the brain
- b. To maintain your body weight it is very important to have adequate sleep
- c. To maintain your body weight keep on sleeping for long time
- d. Since the rate of metabolism is also controlled by the same part of the brain controlling sleep, it is necessary to have enough of sleep to maintain the right body weight
- e. One of the reasons for increase in body weight is inadequate sleep

Correct answer: d

95. Try to avoid any stress creating conversation topics out of your bedroom because bedroom is meant for rest and relaxation.

From which of the following can the statement above be most properly inferred?

- a. Do not discuss about serious issues such as money in your bedroom
- b. Bedroom is meant for rest and relaxation

- c. Discussing topics such as finance and others inside your bedroom could create an atmosphere of stress which will affect your sleep very much and hence your health
- d. In order to have adequate sleep try to keep all the stress creating topics of conversation outside your bedroom
- e. You should only relax and rest in your bedroom

Correct answer: c

Read the separate condition given below each statement and then select the correct answer from the following five options.

96. **Good food** is loved by everyone and a sumptuous meal can create **positive changes** in your mood very instantly.

Which of the following, if true, identifies the greatest flaw in the reasoning above?

- a. Good food is loved by everyone
- b. A sumptuous meal can create positive changes in your mood very instantly
- c. Good food can create positive changes in your mood very instantly
- d. Good food does not affect your mood at all
- e. Food should not only be good in taste but it should also be nutritious

Correct answer: d

97. Yoghurt not only helps you cool down your body instantly but it is also better than milk since it is easier to digest.

From which of the following can the statement above be most properly inferred?

- a. Yoghurt is better than milk because it is easier to digest and it also keeps the body cool
- b. Yoghurt helps you in cooling down your body instantly
- c. Milk is hard to digest as compared to yoghurt
- d. Yoghurt is very easy to digest as compared to milk
- e. Yoghurt and milk both are very good for health

Correct answer: a

98. One of the key components that helps you in breaking down the fats in your body and hence keep you in shape is vitamin C.

Which of the following, if true, most seriously jeopardizes the validity of the argument by the speaker above?

- a. Vitamin C helps in breaking down the fats
- b. Vitamin C is essential to keep your body in shape
- c. You need to **burn fats** in order to keep your body weight maintained
- d. Fats help you to keep your body in shape
- e. Include foods that are rich in vitamin C in your daily diet to keep you fit and fine

Correct answer: d

99. During summers to reduce the intake of food and fight against the food nausea you need to keep your body well hydrated with adequate amount of water.

Which of the following, if true, identifies the greatest flaw in the reasoning above?

- a. Water is necessary to keep your body hydrated
- b. During summers you need to keep your body well hydrated with adequate amount of water
- c. Drink plenty of water to avoid dehydration during summers
- d. To reduce the intake of food and fight against the food nausea during summer season **you must** drink adequate amount of water
- e. Whenever you feel hungry drink water instead of food

Correct answer: e

100. Coconut water contains sugar, minerals, vitamins and electrolytes that keep you refreshed in tiring heat and also keep you hydrated and refill the water that your body loses in the form of sweat.

Any of the following, if introduced into the argument as an additional premise, makes the argument above logically correct EXCEPT:

- a. Coconut water is very good for health
- b. Coconut water is better much than normal plain drinking water
- c. Plain water is more rich in minerals, vitamins, sugar and electrolytes as compared to coconut water
- d. Try to drink more of coconut water instead of plain water to keep your body well hydrated at all time
- e. You must drink coconut water because it is very beneficial for health because of the sugar, minerals, vitamins and electrolyte contents

Verbal Section : Sample Sentence Correction Questions

Directions for answering the sentence correction type of NNPC questions:

A sentence correction question consists of a sentence, a part or whole of which is underlined. Below the sentence are given five options to phrase the underlined part. The first option is same as the original underlined part and the remaining options are different. Choose an answer that will best fit the meaning of the sentence as a whole.

1. The people flocked to the cinema hall to see the film guaranteeing its financial success; though the critics denounced the film as silly and insane.
 - a. Critics denounced the film as silly and insane
 - b. Film was very much silly and insane
 - c. Critics did not tell the people to see the film
 - d. The film did not have a good story line
 - e. The theatre was not good at all

Correct answer: a

2. Even the most arbitrary and authoritarian corporation today must be aware of the attitudes of its employees; management may at times be more or less responsive, but all the employees must respect the power of an organized work force.
 - a. All the employees must respect the power of an organized work force
 - b. The power of an organized work force must be respected by all the employees
 - c. You must respect the power of work force
 - d. all must respect the power of an organized work force
 - e. The power of an organized work force must be respected by all

Correct answer: d

3. The way in which the candidates answer the difficult questions creates an impression about how long they have been corporate sector, but in reality they entered into it only recently.
 - a. The way in which the candidates answer the difficult questions creates an impression about how long they have been in the corporate sector
 - b. Answer the questions and create an impression about your experience of being a corporate professional
 - c. The ease with which the candidates answer the tough questions creates an impression that they have been in the corporate sector for years
 - d. How easily the tough questions are answered by the candidates decides their service period

- e. Answer the tough questions easily and create an impression about your experience of being a professional

Correct answer: c

- 4. We should never see what has been done; rather we should always see what is remaining to be done.
 - a. We should never see what has been done
 - b. We should never look at the things that are done
 - c. We should look at the things that are done
 - d. The things that are done should not be overlooked
 - e. We should not look only on the what has been done

Correct answer: a

- 5. All the members in the family were shocked after hearing the news of Amy coming first in [the class](#).
 - a. All the members in the family were shocked
 - b. The news shocked the whole family
 - c. The whole family was shocked
 - d. All the family was under a shock
 - e. No one in the family was shocked

Correct answer: a

Verbal Section : Sample Sentence Correction Questions

- 6. There is a difference between the [prose](#) and the poetry writing in the sense that it does not depend on the rhymes, verses and meters for its presentation as well as organization.
 - a. There is a difference between the prose and the poetry writing
 - b. Both the prose and the poetry writing are different
 - c. The poetry and the prose [writings](#) are not similar
 - d. The prose writing is different from the poetry writing
 - e. The writings for the prose and the poetry

Correct answer: d

- 7. A person or sometimes an animal, who takes part in a short story or some other kind of literature work, is known as the character of the short story.
 - a. A person or sometimes an animal, who takes part in a short story

- b. A person or an animal who participates in a short story
- c. Anything that takes part in a short story
- d. Any kind of person, thing or animal who takes part in a short story
- e. The one who takes part in short story

Correct answer: a

8. The layers of atmosphere that coat our planet earth include the ionosphere, mesosphere, exosphere as well as the thermosphere, but it is the layer called as troposphere layer that is closest to the planet earth, which is about 10 miles high and protects us and supports our living.
- a. but it is the layer called as troposphere layer that is closest to the planet earth
 - b. but it is the troposphere layer that is closest to the planet earth
 - c. but the layer called as troposphere is the nearest to the planet earth
 - d. and the troposphere layer is very near to the planet earth
 - e. then the troposphere layer comes

Correct answer: b

9. It took a very long time and very hard work for the researchers to go through the earth's atmosphere into the wide expanse of space beyond the Earth.
- a. It took a very long time and very hard work for the researchers to go through the earth's atmosphere
 - b. It took many years and many great minds to go through the earth's atmosphere
 - c. In order to go through the earth's atmosphere, it took many years and great talent
 - d. It took many years and many **brains** to go through the earth's atmosphere
 - e. You require a lot of time and brains in order to go through the earth's atmosphere

Correct answer: b

10. On evaporating all the water out of the all the oceans available on the planet earth and spreading the obtained salt on the entire land, you will find a thick coating of about five hundred foot.
- a. On evaporating all the water out of the all the oceans available on the planet earth and spreading the obtained salt
 - b. After evaporating all the water out of all the oceans on Earth and spreading the resulting salt
 - c. Evaporation of all the water in all the oceans on the earth and spreading the salt
 - d. Evaporate all the water found in all the oceans on the planet earth and then spread the salt

- e. Perforate all the water found in all the oceans on the planet earth and then spread the salt

Correct answer: b

Verbal Section : Sample Sentence Correction Questions

11. It is said that, in the phase one of dreaming, also known as 'Lucid dreaming', one can control their dreams and manipulate their outcomes as well.
- a. It is said that, in the phase one of dreaming, also known as 'Lucid dreaming'
 - b. In the phase one of dreams that is also known as the lucid dreaming
 - c. The phase one of dreaming is called as 'Lucid dreaming'
 - d. In case of Lucid dreaming which is the first phase of dreaming
 - e. It is in the first phase of dreaming also known as the lucid dreaming

Correct answer: a

12. Though the dreams have been a great topic of research and a subject of truthseeking and spiritual interest since the historic times, we are unable to understand the exact purpose and content of dreams.
- a. we are still unable to find out the definite purpose and content of dreams
 - b. both the content and purpose of dreams are still not understood definitively
 - c. the purpose and content of dreams is still very much unclear
 - d. we are still unable to find out the definite purpose and content of dreams
 - e. we are unable to understand the exact purpose and content of dreams
 - f. both the content and purpose of dreams are still very much misunderstood

Correct answer: b

13. The quality of the dried fruits of providing with a wide variety of all the vital nutrients, thus making them a part of the category of foods that increase the quality of our diet and also decrease the chances of never-ending diseases to a great extent.
- a. The quality of the dried fruits of providing with a wide variety of all the vital nutrients
 - b. all the dried fruits, in general, provide a wide variety of all the vital nutrients
 - c. In general, all dried fruits provide very less amount of nutrients
 - d. Since the dried fruits provide all the essential nutrients
 - e. All the essential nutrients are provided by the dried fruits

Correct answer: b

14. The cheapest way to supply energy to the human body is in the form of carbohydrates, since a good amount of it in our diet protects the proteins from

breaking down and keeps them in an integrated form for carrying out the functions of maintenance and **growth of** the cells and tissues.

- a. The cheapest way to supply energy to the human body is in the form of carbohydrates
- b. Carbohydrates are a better way to supply energy to the human body
- c. Carbohydrates are the cheapest way to supply energy to the human body
- d. We must supply energy to the human body in the form of carbohydrates because they **are cheap**
- e. A cheapest way to supply energy to the human body is in the form of carbohydrates

Correct answer: c

15. When the amount of dietary carbohydrates and sugars are very low, the liver converts the amino acids to form the carbohydrates, so that the energy supply to the body is maintained.

- a. so that the energy supply to the body is maintained
- b. in order to maintain the supply of energy in the body
- c. with the aim of maintaining constant energy supply to the body

- d. so that it can create energy supply for the body
- e. in order to improve the energy supply for the body

Correct answer: b

Verbal Section : Sample Sentence Correction Questions

16. Since the creative people are benefited from the supporters of arts, they should expect a certain level of the corporations control on receiving this support.

- a. they should expect a certain level of the corporations control
- b. they should also accept a certain level of the corporate control
- c. they should never accept any degree of control on the corporation
- d. they should always accept some level of control over the corporation
- e. they should consider certain degree of freedom over the corporation

17. Keeping in **mind the** vulnerability of the country to natural calamities such as earthquakes, the country's officials have greatly emphasized on the development of extensive safety plans for the cities in Japan, in order to be able to deal with these disasters.

- a. the country's officials have greatly emphasized on the development of extensive safety plans

- b. there has been a high demand on the development of safety plans by the officers of the country
- c. the country's officers should greatly focus on the development of good safety plans
- d. there should be a great emphasis on the development of good safety measures by the country's officials
- e. the country's officials should demand for better plans that have more emphasis on the development of safety measures

Correct answer: a

18. As the technology used for monitoring the activity of the volcano were found to be useless, the people were asked to evacuate the place gradually, but some of them refused to do so and had to lose their lives.

- a. As the technology used for monitoring the activity of the volcano were found to be useless, the people were asked to evacuate the place gradually
- b. As the technology used for monitoring the activity of the volcano were found to be troublesome, the people were asked to evacuate the place as soon as possible
- c. Although the technique that monitored the volcanic activities were found to be effective, the people were forced to go away from the place slowly
- d. Since the volcanic activities were monitored in a wrong way, the rescue team asked the people to leave the place as soon as possible
- e. Though the techniques that monitored the volcanic eruption activities were found to be disturbing, the people were ordered to empty the place immediately

Correct answer: b

19. It has been concluded by many researchers that all the fundamental connections between **the brain** cells are established within the first three months of the birth because the stimulation carried out immediately after birth creates always an unnoticed and ignored effect on the children.

- a. the stimulation carried out immediately after birth creates always an unnoticed and ignored effect on the children
- b. the stimulation carried out immediately after the birth always creates an intense and deep effect on the children
- c. it is easy to develop a lasting effect on the children immediately after they are born
- d. when the child is newly born it is easy to carry out intense and deep changes in its mind
- e. newly born babies can quickly establish the deep and profound connection between the cells of the brain

Correct answer: b

20. The increase in the awareness of the important relationship between the health and the nutrition, people have started concentrating on more proper planning of diets as compared to the past.
- The increase in the awareness of the important relationship between the health and the nutrition
 - As a result of the increasing ignorance of the important bonding between the health and the nourishment
 - Because of the elevation in the publicity of one of the most important relation between the food and the health
 - Because of the increase in the concerns over the importance of the relation between the health and the nutrition
 - As a result of the controversial concerns over the important connection between the diet and the health

Correct answer: d

Verbal Section : Sample Sentence Correction Questions

21. The exploitation of famous musical shows by the artists who are not talented at all is one of the main reasons for many people to make a conclusion that, you don't need to be creative in order to be successful **in the field** of music, rather you need good **promotions** and **advertisements**.
- The exploitation of famous musical shows by the artists who are not talented at all
 - The domination of well known musical shows by the singers and artists who have negligible talent
 - The exploration of the famous musical shows by the artists who have vast talent
 - The appearance of the artists with noticeable talent in the popular musical shows
 - The control of the artists who have inappropriate knowledge of music over popular music shows

Correct answer: b

22. The patient got a new hope and began to develop a positive attitude towards life when he saw that the doctor was successful in treating the reason for his illness.
- he saw that the doctor was successful in treating the reason for his illness
 - he came to know that the doctor failed to find the reason for his disease
 - he was made aware that the doctor was successful in diagnosing the reason for his illness

- d. he heard that the doctors are confused in finding out the exact cause for his bad health
- e. he saw that the none of the doctors is able to find the reason for his bad health

Correct answer: c

23. In spite of the fact that the medicinal experimentation that is carried out on animals is considered as inhuman and controversial, there is no pause on this method considering the advantages to the humans that overshadow the harm done to animals.

- a. there is no pause on this method considering the advantages to the humans that overshadow the harm done to animals
- b. this method is still continued by taking in to account the benefits to the human race that mitigate the harm done to the animals
- c. this methodology is still going on with respect to the benefits that the humans receive, neglecting the harm done to the animals
- d. you cannot stop this method because it has great advantages for the humans though it is harmful for the animals
- e. there is no full stop to this method looking at the advantages to the humans, though it is very much harmful for the animals

Correct answer: a

24. All the contestants were provided with a unique numerical code for their identification, with the aim of ensuring that the judges do not make any authority between the contestants.

- a. with the aim of ensuring that the judges do not make any authority between the contestants
- b. with the aim of ensuring that the judges do not make any controversy among the contestants
- c. with the aim of ensuring that the judges do not make any partiality between the contestants
- d. so that the contestants are judged on an inappropriate basis by the judges
- e. so that the judges can recognize the contestants and make controversial judgments

Correct answer: c

25. The fact that the female birds of majority of the species are dull in color concludes that, when they sit either on the branch of the trees or at any other place, they can easily cover themselves and save their lives from danger.

- a. they can easily cover themselves and save their lives from danger
- b. they can easily coincide themselves with the trees
- c. they can hide themselves from the animals and humans very easily

- d. the trees or any other thing can hide the female birds very easily from any danger
- e. they can camouflage very easily and save their lives from danger

Correct answer: e

Verbal Section : Sample Sentence Correction Questions

26. Not only the outstanding academic result of his brother inspired Steve to get admitted to one of the most popular universities in their country, but also he was very optimistic about the chances of getting admission to the Cambridge University.
- a. he was very optimistic about the chances of getting admission to the Cambridge University
 - b. he studied very hard with the hopes of getting admission to the Cambridge University
 - c. he was very sure about getting admission to the Cambridge University and hence did not study at all
 - d. with the over confidence of getting admission to the Cambridge University, Steve did not study at all
 - e. he was aiming to get admission to the University of Cambridge and so he studied very hard

Correct answer: b

27. As the physical well being of all the living things have its roots in the chemical needs of the body, similarly, the personality of any living being has its deep roots in the call for love and affection.
- a. the persona of any living being has its deep roots in the call for love and affection
 - b. the character of any living thing is rooted deeply in the hope of love and affection
 - c. love and affection are the factors in which the personality of any living thing is rooted deeply
 - d. the deep roots of personality are found in love and affection
 - e. the factors such as love and affection are the main roots for the personality of any living creature

Correct answer: a

28. Some of the major reasons that force the young adults to stay with their guardians instead of living by themselves are the high cost of living and stagnating wages.

- a. Some of the major reasons that force the young adults to stay with their guardians instead of living by themselves are the high cost of living and stagnating wages
- b. The young adults are forced to stay with their parents instead of living on their own because of the increasing cost of living and stagnating wages
- c. Due to the high expenses of living and declining wages, majority of the young adults prefer to live with their parents instead of living alone
- d. It is the elevating expenses and declining wages that are forcing the young generation adults to live with their family
- e. The young adults chose to stay with their parents and family because of the very high daily expenses and very low income

Correct answer: b

29. Most of the parents have the misconception that, it is not necessary to keep a watch over the children when they use the computers because, the computers are considered as a good source of education and learning.

- a. the computers are considered as a good source of education and learning
- b. parents feel that the children will use the computers only for meaningful purpose
- c. the computers will not spoil their children like the television and [the movies](#) do
- d. there is no other option for educating their children at home
- e. the parents want their children to have a good knowledge about the computers and the internet

Correct answer: a

30. The struggle between the living creatures on the planet is becoming more and more intense day by day, as a result of the decline in the number of trees and forests which are [the natural](#) habitat for them.

- a. The struggle between the living creatures on the planet is becoming more and more intense day by day
- b. The living beings on the planet are struggling more intensely day by [day for](#) their survival
- c. It is necessary to struggle very hard in order to survive on this planet
- d. You cannot live if you do not strive very hard for your survival on the planet
- e. It is important for you to struggle very hard for your survival on the planet

Correct answer: a

Verbal Section : Sample Sentence Correction Questions

31. It is observed that the carbon dioxide gas is one of the major reasons for the green house effect since it absorbs the harmful infrared rays at a very high rate resulting in the rise in the temperature of the earth.
- It absorbs the harmful infrared rays at a very high rate resulting in the rise in the temperature of the earth
 - The harmful infrared rays are absorbed at a very high rate by it that increases the temperature of the earth
 - It increases the earth's temperature by strongly absorbing the harmful infrared rays
 - The temperature of the earth is increased by it by strongly absorbing the harmful infrared rays
 - The infrared rays that are very harmful are absorbed by it and this increases the temperature of the earth

Correct answer: a

32. Since the quantum energies that are found in glass have the ability to absorb rays, the glass has the property to absorb the UV rays that have short wavelengths.
- The glass has the property to absorb the UV rays that have short wavelengths
 - The UV rays of short wavelengths are completely absorbed by the glass
 - It is the property of the glass to absorb the UV rays
 - The UV rays of small wavelengths are reflected by the glass
 - The glasses can reflect the UV rays of small wavelengths

Correct answer: b

33. Water vapor is said to have the biggest share in the contribution to the ordinary greenhouse effect that is caused naturally because, it is the only greenhouse gas that occurs in nature.
- Water vapor is said to have the biggest share in the contribution to the ordinary greenhouse effect that is caused naturally
 - Water vapor is said to be one of the biggest contributors to the greenhouse effect caused usually
 - The natural greenhouse effect is usually caused by the water vapors
 - The normal greenhouse effect is likely to be caused by the water vapor
 - There is no other contributor to the common greenhouse effect except for the water vapor

Correct answer: b

34. The elemental oxygen that is used for all the activities of compound life such as cellular respiration is produced majorly by the plants, algae as well as the cyanobacteria.
- The elemental oxygen that is used for all the activities of compound life
 - The elemental oxygen that is used for carrying out all the complex life activities
 - All the compound life activities are carried out using the elemental oxygen
 - You cannot perform any compound life activities without the elemental oxygen
 - You need to the elemental oxygen to perform all the complex life activities

Correct answer: b

35. The factor that is responsible for proper functioning of the climatic and weather conditions is the water cycle.
- The factor that is responsible for proper functioning of the climatic and weather conditions is the water cycle
 - Water cycle is the reason for good weather and climate
 - The weather and climatic conditions are a result of the water cycle
 - The water cycle keeps the climatic and weather conditions in a proper way
 - The water cycle is responsible for proper functioning of climatic and weather conditions

Correct answer: e

Verbal Section : Sample Sentence Correction Questions

36. The category to which the honoree has made contribution is indicated within a circular inlaid brass emblem which is in the lower half of the star field and below the inscription.
- The category to which the honoree has made contribution
 - The category of cinematic contribution of the honoree
 - The honoree's category to which he/she has contributed
 - The contributed category that the honoree has been a part of
 - The part of the category to which the honoree has made any contribution

Correct answer: a

37. The Hollywood Chamber of Commerce appointed an official for serving as the honorary Mayor of Hollywood only during all the ceremonies.
- The Hollywood Chamber of Commerce appointed an official
 - An official was appointed by the Hollywood Chamber of Commerce

- c. There was an appointment of an official by the Hollywood Chamber of Commerce
- d. The Hollywood Chamber of Commerce made an appointment of an official
- e. The appointment of an official was done by the Hollywood Chamber of Commerce

Correct answer: b

38. Though his father, Vincent Vega was related with the field of music, he wanted his son Leo to make his career in the field of medicine for economical reasons.

- a. He wanted his son Leo to make his career in the field of medicine for economical reasons
- b. He wished Leo to make his career in the field of medicine for better income
- c. He wanted his son Leo, to make his career in the field of medicine so that, he earns a better income than him
- d. He forced his Leo in the field of medical for better financial reasons
- e. He wished that his son makes a better career by choosing the medical field since there was more money in that field

Correct answer: c

39. In order to escape the penalized licensing that was imposed by the Motion Pictures Patents Company, majority of the film financiers and filmmakers shifted their bases from the east coast.

- a. In order to escape the penalized licensing that was imposed by the Motion Pictures Patents Company
- b. With the aim of escaping the penalty on the licensing, imposed by the Motion Pictures Patents Company
- c. To escape from the penalty imposed on the licensing of the movies by the Motion Pictures Patents Company
- d. Since the Motion Pictures Patents Company imposed penalty on the licensing of the movies, so to escape from it
- e. For escaping the penalty imposed by the Motion Pictures Patents Company on the licensing of the movies

Correct answer: c

40. The first known practical telescopes invented using glass lenses were useful for the astronomical and global applications.

- a. The first known practical telescopes invented using glass lenses
- b. The glass lenses were used for the invention of the practical telescopes that were known first
- c. For the invention of the first known practical telescopes, glass lenses were used

- d. The practical telescopes that were first invented using the glass lenses
- e. The glass lenses that were used for inventing the first practical telescopes

Correct answer: d

Verbal Section : Sample Sentence Correction Questions

41. Though the size of the aperture is fixed in some cameras, a diaphragm is often used to control the aperture's diameter.
- a. A diaphragm is often used to control the aperture's diameter
 - b. The diaphragm is often used for controlling the diameter of the aperture
 - c. The diameter of the aperture is often changed with the help of diaphragm
 - d. The photographers often use the diaphragm to change the diameter of the aperture
 - e. The diameter of the cameras aperture is often changed with the help of diaphragm

Correct answer: b

42. When you are satisfied with the focusing of the image on the screen, cover the lens of the camera and replace the screen with any of the material that is sensitive to light.
- a. Replace the screen with any of the material that is sensitive to light
 - b. Make use of a material that is sensitive to light, in place of the screen
 - c. Let the screen be replaced with a very susceptible material to light
 - d. Use a material that is sensitive to light as a substitute for the screen
 - e. Remove the screen and make use of light sensitive material in place of the screen

Correct answer: b

43. Generally the CMOS as well as the CCD sensor chips convert the light rays into isolated signals and hence, limit the resolution power of the digital cameras.
- a. The CMOS as well as the CCD sensor chips convert the light rays into isolated signals
 - b. The light rays are broken down into discrete signals by the CMOS and the CCD sensor chips
 - c. The small signals are formed from continuous rays of light by the CMOS and the CCD sensor chips
 - d. The CMOS and the CCD sensor chips are responsible for converting the light rays into discrete signals

- e. The conversion of light rays into isolated signals is carried out by the CMOS and the CCD sensor chips

Correct answer: a

44. On the basis of the hardware configuration of the sensors as well as the color filters, there are three major and unique ways in which you can capture the picture.
- a. There are three major and unique ways in which you can capture the picture
 - b. There are three major ways in which you can capture the picture and each one is different from the other
 - c. The picture can be captured in three distinct types
 - d. You can click the photo using three different methods
 - e. There are three major types in which you can click the images

Correct answer: b

45. When the cameras having the digital sensors for images are used with the lenses that have similar focal length, then, in that case the angle of view is smaller.
- a. Digital sensors for images are used with the lenses that have similar focal length
 - b. The digital sensors for images are used with the lenses having similar focal length
 - c. The digital sensors and the same focal length are used together for clicking pictures
 - d. Same focal length as well as the digital sensors for the images are used
 - e. For the images that have digital sensors and are used with same focal length are used

Correct answer: b

Verbal Section : Sample Sentence Correction Questions

46. If the size of the water bodies such as lakes and rivers increase due to variable amount of snow fall and precipitations, without causing any danger to the human civilization, then the flood is not a major flood.
- a. If the size of the water bodies such as lakes and rivers increase due to variable amount of snow fall and precipitations
 - b. If the water bodies such as lakes and rivers do increase in size considerably with the variation in the amount of snow fall and precipitation
 - c. With the variation in the amount of snow fall and precipitation, if the size of the water bodies such as the lakes and the rivers do increase to a large extent
 - d. If the amount of snow fall and precipitation cause variations in the levels of the water bodies such as lakes and rivers
 - e. If the levels of the water bodies such as the lakes and rivers increase due to variations in the amount of snow fall and precipitation

Correct answer: e

47. When **Bangladesh** observed flood in October 2005 because of the significant increase in the levels of the northwestern rivers, due to heavy rainfall, large number of villages were swamped
- Due to heavy rainfall, large number of villages were swamped
 - Large number of villages were swamped due to heavy rainfall
 - And heavy rainfall swamped large number of villages
 - And large number of villages were swamped as result of heavy rainfall
 - The heavy rainfall swamped large number of villages

Correct answer: a

48. In case when the bunds and reservoirs fail to stop the water bodies from flooding their banks, then in that case, we make use of other emergency preventive **measures** such as portable inflatable tubes and bags of sand to prevent flood
- When the bunds and reservoirs fail to stop the water bodies from flooding their banks
 - When the early preventive measures such as the bunds and the reservoirs are unable to stop the water bodies from flooding their banks
 - When we are not able to stop the water bodies from flooding their banks with the help of measures such as bunds and reservoirs
 - When we fail to stop the water bodies from flooding their banks with the help of measures such as bunds and reservoirs
 - Of failure in putting a stop to the water bodies from flooding their banks with the help of measures such as bunds and reservoirs

Correct answer: a

49. Though the occurrence of flood **result in** huge losses to the human civilization and all their financial activities, the floods that occur frequently and on a small scale help in improving the quality of the soil to a large extent, by increasing the level of the deficient **constituents** in the soil
- The floods that occur frequently and on a small scale help in improving the quality of the soil to a large extent
 - The frequently occurring floods and on a small scale help in improving the quality of the soil to a large extent
 - The floods that occur on a frequent basis and on a small scale help in improving the quality of the soil to a large extent
 - The floods that are small and occur frequently help in improving the quality of the soil to a large extent
 - The quality of the soil is improved to a large extent by the floods that occur frequently and on a small scale

Correct answer: e

50. The floods not only improve the quality of soil but also increase the level of nutrients in the water bodies thus leading to good growth in the number of fishes; hence it is a great time for the fisherman to carry out their fishing activities when the floods have just occurred
- It is a great time for the fisherman to carry out their fishing activities when the floods have just occurred
 - When the floods have just occurred it is a great time for the fisherman to carry out their fishing activities
 - It is not at all a great time for the fisherman to carry out their fishing activities when the floods have just occurred
 - It is not safe for the fisherman to carry out their fishing activities when the floods have just occurred
 - The fisherman should carry out their fishing activities when the floods have just occurred

Correct answer: e

Verbal Section : Sample Sentence Correction Questions

51. When the seismic waves are created as a result of the rapid release of energy in the Earth's crust, it causes an earthquake.
- When the seismic waves are created as a result of the rapid release of energy in the Earth's crust
 - When the earth's crust observes a sudden release of energy and as a result the seismic waves are created, then
 - The creation of seismic waves as a result of the rapid release of energy in the Earth's crust
 - When a large amount of energy is released abruptly in the earth's crust and as a result seismic waves are created
 - If the seismic waves are created as a result of the rapid release of energy in the Earth's crust

Correct answer: d

52. The geological terms focus or hypocenter are used to refer the point where **the earthquake** ruptures initially, whereas, the point which is exactly above the focus is called as the epicenter of the earthquake.
- The point which is exactly above the focus is called as the epicenter of the earthquake

- b. The point which lies above the focus is called as the epicenter of the earthquake
- c. The point which is found above the focus is called as the epicenter of the earthquake
- d. The exact point above the focus is called as the epicenter of the earthquake
- e. The point of the earthquake which is exactly above the focus is called as the epicenter of the earthquake

Correct answer: a

53. If the seabed gets displaced to a sufficient extent due to the shifting of the epicenter from the land to water, then the chances for a tsunami to occur increase a lot.
- a. If the seabed gets displaced to a sufficient extent due to the shifting of the epicenter
 - b. In case the epicenter is shifted to the water from the land resulting in a considerable displacement of the seabed
 - c. As a result of considerable displacement in the position of the seabed, due to the shifting of the epicenter
 - d. If there is a considerable dislocation of the seabed, due to the shifting of the epicenter
 - e. In case where there is displacement of the epicenter from the land to the water resulting in a considerable displacement of the seabed

Correct answer: d

54. Though majority of the energy generated during the earthquake is used to increase the number and intensity of the earthquake fractures or produce friction generated heat, some of it i.e. about 10 percent, is also radiated in the form of seismic energy.
- a. Majority of the energy generated during the earthquake is used to increase the number and intensity of the earthquake fractures
 - b. The number and intensity of the fractures produced during earthquakes is a result of the majority of the energy generated during the earthquake
 - c. Many of the energy generated during the earthquake is used to increase the number and intensity of the earthquake fractures
 - d. Lot of the energy generated during the earthquake is used to increase the number and intensity of the earthquake fractures
 - e. Majority of the energy generated during the earthquake is responsible for increasing the number and intensity of the earthquake fractures

Correct answer: a

55. The main reason behind the volcanic regions having more number of hypocenters and the epicenters of the earthquakes is the movement of the molten rocks, also known as magma in the volcanoes.

- a. The main reason behind the volcanic regions having more number of hypocenters and the epicenters of the earthquake is
- b. The volcanic regions have more number of hypocenters and the epicenters of the earthquakes is because of
- c. There are more number of hypocenters and epicenters in the volcanic regions of earthquakes is because of
- d. The reason behind the more number of hypocenters and the epicenters of the earthquakes in the volcanic regions is
- e. More number of hypocenters and the epicenters of the earthquakes in the volcanic regions is the main reason for

Correct answer: c

Verbal Section : Sample Sentence Correction Questions

56. Drinking green tea not only helps in maintaining the total level of cholesterol in the body, but also helps in increasing the level of good cholesterol i.e. HDL in comparison to bad cholesterol i.e. LDL.
- a. Drinking green tea not only helps in maintaining the total level of cholesterol in the body
 - b. The green tea not only helps in maintaining the total level of cholesterol in the body
 - c. You can not only maintain the total level of cholesterol in the body by drinking green tea
 - d. The daily consumption of green tea not only helps in maintaining the total level of cholesterol in the body
 - e. The total level of cholesterol in the body can be maintained if you consume green tea daily

Correct answer: d

57. It is said that the leaves of green tea is more better than the black and the oolong tea leaves because of the fact that the steaming of the green tea leaves avoids the oxidization of the most important EGCG compound found in theses leaves.
- a. Steaming of the green tea leaves avoids the oxidization of the most important EGCG compound found in theses leaves
 - b. Unlike the black and the oolong tea leaves, the green tea leaves are exposed to steam that avoids the oxidization of the most important EGCG compound found in theses leaves
 - c. Steam of the green tea leaves avoids the oxidization of the most important EGCG compound found in theses leaves
 - d. You can steam the green tea leaves that avoids the oxidization of the most important EGCG compound found in theses leaves

- e. Oxidization of the most important EGCG compound found in these leaves is avoided by steaming these leaves

Correct answer: b

58. Daily consumption of green tea can also provide you with oral health benefits since its [constituents](#) also help to prevent the oral bacteria causing bad breath from being formed.

- a. Help to prevent the oral bacteria causing bad breath from being formed
- b. Help to inhibit the formation of any oral bacteria that may [result in](#) bad breath
- c. Help in avoiding bad breath that is a result of the bacteria found in mouth
- d. Help in reducing the effect of oral bacteria that result in bad breath by stopping their formation in the mouth
- e. Help to slow down the formation of any oral bacteria that may result in bad breath

Correct answer: b

59. The green tea also has some constituents that can attack and kill the germs that can cause red and swollen acne, thus making it very useful for having a pimple and marks free skin.

- a. Thus making it very useful for having a pimple and marks free skin
- b. Thus making it very useful for having a good face
- c. This makes the green tea very essential for having a good and pimple free skin
- d. Hence, it is very important to drink green tea for having a pimple free and very good skin
- e. Hence you must drink green tea every day in order to have a pimple free and very good skin

Correct answer: a

60. When the flash memory systems or pen drives are accessed by the computers, all the information regarding the location of files in the [computer memory](#) is controlled fully by the controller system.

- a. All the information regarding the location of files in the computer memory is controlled fully by the controller system
- b. All the information regarding the location of files in the computer memory is in complete control of the controller system
- c. All the location of files in the computer memory is controlled fully by the controller system
- d. All the files in the computer memory is controlled fully by the controller system
- e. The computer memory is controlled fully by the controller system for any information about the files location

Correct answer: a

Verbal Section : Sample Sentence Correction Questions

61. Of all the animals, the face of lion is one of the most easily recognizable animal faces because of its distinct mane around his face.
- Because of its distinct mane around his face
 - And is characterized by the clear and distinct mane that surrounds his face
 - Because of the distinct mane all around his face
 - Because he has a very clear and distinct mane around his face
 - Since the lion has mane all around his face

Correct answer: b

62. The lion is considered as the laziest animal of all, because of the fact that he spends about 95 percent of the whole day in resting.
- The lion is considered as the laziest animal of all
 - The lion is considered as the most lazy of all
 - Of all the animals in the world, lion is considered as the most laziest of all
 - No other animal except for the lion is lazy
 - Except for lion, no other animal in the world is as lazy as him

Correct answer: c

63. The area that is occupied by the pride type of lions is known as the pride area, whereas, the area that is occupied by the nomad type of lions is called as a range.
- The area that is occupied by the nomad type of lions is called as a range
 - Range is the area that the nomad type of lions occupy
 - The area that is occupied by the nomad type of lions is called as the range
 - Range is the type of area that the nomad type of lions occupy
 - The nomad type of lions live in range

Correct answer: c

64. The Taj Mahal is widely recognized as "the jewel" of Muslim art in India and one of the universally admired masterpieces of the world's heritage.
- The Taj Mahal is widely recognized as "the jewel" of Muslim art in India
 - The Taj Mahal is well known as "the jewel" of Muslim art in India
 - The Taj Mahal is widely famous as "the jewel" of Muslim art in India
 - The Taj Mahal is worldwide recognized as "the jewel" of Muslim art in India

- e. The Taj Mahal is recognized all over the world as "the jewel" of Muslim art in India

Correct answer: a

65. The Red Fort was originally referred to as "Qila-i-Mubarak" (the blessed fort), because it was the residence of the royal family and the layout of the Red Fort was organized to retain and integrate this site with the Salimgarh Fort.
- a. The Red Fort was originally referred to as "Qila-i-Mubarak"
 - b. The Red Fort was referred to as "Qila-i-Mubarak" originally
 - c. The Red Fort was famously referred to as "Qila-i-Mubarak"
 - d. The Red Fort was well referred to as "Qila-i-Mubarak"
 - e. The Red Fort was known to as "Qila-i-Mubarak"

Correct answer: a

Verbal Section : Sample Sentence Correction Questions

66. In order to prepare coconut milk, you first grind the coconut meat very finely and then dilute the resulting thick liquid with appropriate amount of normal plain water.
- a. In order to prepare coconut milk, you first grind the coconut meat very finely
 - b. If you want to prepare coconut milk, then first grind the coconut meat
 - c. The coconut milk is obtained when you grind the coconut meat very finely
 - d. For preparing coconut milk, first of all you grind the meat of the coconut finely
 - e. First of all you grind the meat of the coconut very finely to make the milk of coconut

Correct answer: d

67. Hot water not only helps in improving the blood circulation, but it is also found that by adding a bit of honey and lemon juice to it can also boost the immune system of the body.
- a. By adding a bit of honey and lemon juice to it can also boost the immune system of the body
 - b. If you add a little bit of honey and lemon juice to it, the drink can greatly boost the immune system of the body
 - c. The drink prepared by adding honey and lemon to hot water can boost up the body's immune system
 - d. You can also add honey and lemon to hot water and make a drink to increase the immunity of the body
 - e. Add honey and lemon to hot water and increase the capacity to fight diseases

Correct answer: b

68. Research have shown that, if you drink a glass of lemon juice every day, it will aid your bowels in the process of digestion and elimination of waste products from the body that will ultimately help against constipation and diarrhea.
- It will aid your bowels in the process of digestion and elimination of waste products from the body
 - It helps in the process of digestion and elimination of waste products from the body and aids your bowels
 - It simplifies the process of digestion and elimination of waste products from the body and helps your bowels
 - It helps the bowels in easy digestion and proper elimination of waste products from the body
 - Your bowels can digest the food quickly and help in the elimination of waste products from the body

Correct answer: a

69. It is found that, people who drink beer in moderate quantity have lower chances of death due to chronic heart disease (CHD) as compared to those people who drink beer in high quantity as well as those who do not drink beer at all.
- People who drink beer in moderate quantity have lower chances of death due to chronic heart disease (CHD)
 - The chances of death due to chronic heart diseases are very less in case of those people who drink beer in moderate quantity
 - People who drink beer in moderate quantity have less probability of death due to chronic heart disease (CHD)
 - If you drink beer in less quantity then the chances of chances of death due to chronic heart disease (CHD) are lessened
 - For decreasing the chances of death due to chronic heart diseases, people should start drinking beer in moderate quantity

Correct answer: b

70. Though beer is one of the most popular hard drink of all the beverages preferred by the people all over the world, it is also very useful for many other purposes such as for treating the problem of dry and thin hair.
- It is also very useful for many other purposes such as for treating the problem of dry and thin hair
 - It is also very useable for many other purposes such as for treating the problem of dry and thin hair
 - It can never be used for any other purpose such as for treating the problem of dry and thin hair
 - You can also make use of beer for various other purposes such as for treating the problem of dry and thin hair
 - The purpose of treating dry and thin hair problems can also be fulfilled with the help of beer

Correct answer: d

Verbal Section : Sample Sentence Correction Questions

71. Coconut is one of the finest health drinks, because, it not only maintains a proper balance of water in the body but also helps in curing a number of diseases with the help of its property to fight against harmful microbes, fungus and viruses.
- It not only maintains a proper balance of water in the body, but also helps in curing a number of diseases
 - It maintains a proper balance of water in the body and also helps in curing a number of diseases
 - Though it maintains a proper balance of water in the body, but also helps in curing a number of diseases
 - Of the proper balance of water that it maintains in the body and also because of **its help** in curing a number of diseases
 - It helps to maintain a proper balance of water in the body along with the property of curing a number of diseases

Correct answer: a

72. Honey is a good source of energy because the glucose contained in it serves an instant source of energy; whereas the fructose contents of honey provide with a continuous supply of energy.
- The glucose contained in it serves an instant source of energy
 - It serves as an instant source of energy because of the glucose contents that are found in honey
 - The glucose that is contained in it serves an instant source of energy
 - The glucose serves an instant source of energy and is found in honey
 - The contained glucose in it provides with an instant source of energy

Correct answer: a

73. Dark chocolate is very essential for the body because the high content of cocoa in it contains antioxidants that are essential for preventing the free radicals from causing any damage to the body.
- Cocoa in it contains antioxidants that are essential for preventing the free radicals from causing any damage to the body
 - The antioxidants that are essential for preventing the free radicals from causing any damage to the body are contained in the cocoa in it
 - The antioxidants for preventing the free radicals from causing any damage to the body are essentially contained in the cocoa found in it

- d. Cocoa in it helps to prevent the body from the attack of the free radicals with the help of the anti-oxidants that are contained in it
- e. Cocoa found in it contains antioxidants that are essential for preventing the free radicals from causing any damage to the body

Correct answer: a

74. The chemical substances or the nutrients that are found in the food obtained from plants that have the property to prevent our body from any sort of damage are referred to as anti-oxidants.
- a. The chemical substances or the nutrients that are found in the food obtained from plants
 - b. The chemical substances or the nutrients that are contained in **the plant** food materials
 - c. The food obtained from the plants consist of certain chemical substances or nutrients
 - d. The chemical substances or the nutrients that the food obtained from plants contain
 - e. The food material obtained from the plants are found to contain certain chemical substances or nutrients

Correct answer: e

75. Coconut oil is one of the **saturated fats** that can be used as an ingredient in the production of various commercial edible as well as non-edible products such as in the manufacture of soaps, medicines, preparation of candies and also for frying purpose.
- a. In the production of various commercial edible as well as non-edible products
 - b. In the commercial production of various edible as well as non-edible products
 - c. In the production of various edible as well as non-edible products on a commercial basis
 - d. In producing the various commercial edible as well as non-edible products
 - e. In the production and commercialization of various edible as well as nonedible products

Correct answer: a

Verbal Section : Sample Sentence Correction Questions

76. All the fossil fuels on the earth will get exhausted very soon if we do not use them in a controlled and efficient manner.
- a. All the fossil fuels on the earth will get exhausted very soon
 - b. The content of all the fossil fuels on the earth will get exhausted very soon
 - c. The quantity of all the fossil fuels on the earth will get replenished very soon
 - d. All the fossil fuels on the earth will not last for a long period of time
 - e. There will not be any fossil fuels on the earth

Correct answer: b

77. Since the value of money is subjective to change by the supply and demand, it is not at all necessary for a connection to exist between any currency and what can be purchased for that currency.
- It is not at all necessary for a connection to exist between any currency
 - There should not be any connection existing between any currency
 - There are no chances for any connection to exist between any currency
 - No connection can found to be exist between any currency
 - It is not at all necessary that the same connection should exist between any currency

Correct answer: e

78. Though it is not very easy to climb a mountain, but still any individual who is able to reach the top is rewarded by a magnificent sight.
- Any individual who is able to reach the top is rewarded by a magnificent sight
 - Any individual who are able to reach the top is rewarded by a magnificent sight
 - The individual reaching to the [top of the mountain](#) is surely rewarded by a magnificent sight
 - A magnificent sight is given in reward to those individuals who are able to reach the top
 - Those people who are able to reach the top will surely be rewarded by a magnificent sight

Correct answer: e

79. Although people argue strongly to the point that the current democratic policies are not fair, they are not able to advocate any particular changes in them.
- They are not able to advocate any particular changes in them
 - They are not capable to advocate any particular changes in them
 - They cannot bring about any of the particular changes in them
 - They have no plans to bring about any particular changes in them
 - They are not able to reject any particular changes in them

Correct answer: d

80. Though beer is one of the elements known to be dangerous if consumed in large quantities, it is found to be essential to life in small amounts.
- It is found to be essential to life in small amounts
 - It is found to be essential to life when consumed in small amounts

- c. The small amount of it is found to be essential to life
- d. But when it is consumed in small amount, it is found to be essential to life
- e. If you take it in small amounts then it is found to be very essential to life

Correct answer: d

Verbal Section : Sample Sentence Correction Questions

81. Though the team was aware of the fact that they have already won the football league in their division, the team continued to play each and every remaining game as if it were very important.
- a. The team continued to play each and every remaining game as if it were very important
 - b. They still continued playing each and every remaining game as if it were very important
 - c. They continued to play every other remaining game as if it were very necessary for them to win
 - d. They **played** each and every remaining game with continuous focus as if it were very important
 - e. The entire team continued playing all the remaining games as if winning them were very important

Correct answer: b

82. The computer video games can prove to be a good diversion for those people who use their computers just for the writing purpose and develop an unclear vision due to the continuous sight of letters and text.
- a. And develop an unclear vision due to the continuous sight of letters and text
 - b. And suffer from an unclear vision due to the continuous sight of letters and text
 - c. And create a non-unclear vision due to the continuous exposure to letters and text
 - d. And develop an unclear vision due to the continuous viewing of letters and text
 - e. And develop an unclear vision due to the continuous focus on letters and text

Correct answer: a

83. Since **the medical** reports developed by the committee addressed only the **symptoms** and not the causes for the disease, it did not receive the exact value as it was supposed to receive.

- a. It did not receive the exact value as it was supposed to receive
- b. It failed to receive the value as it was supposed to receive
- c. They failed in receiving the exact value as they were supposed to receive
- d. Because it could not find the causes for that disease
- e. Because it did not receive the exact value as it was supposed to receive

Correct answer: c

84. Despite of knowing the fact that the disease can endanger the lives of large number of people every year, scarcity in the supply of necessary **medical equipments** have further hampered the medical research program for finding a cure against it.
- a. Have further hampered the medical research program for finding a cure against it
 - b. Have further stopped the medical research program from proceeding in finding a cure against it
 - c. Have further hampered the medical research program from proceeding towards finding a cure against it
 - d. Have led to the hamper of the medical research program for finding a cure against it
 - e. Led to the disappointment of the medical research program in finding a cure against it

Correct answer: c

85. His contempt for the progress in the field of technology was expressed when he exclaimed that the humans are only interested in finding out more competent ways of destroying themselves.
- a. The humans are only interested in finding out more competent ways of destroying themselves
 - b. It is the only interest of humans to find out more competent ways to destroy one another
 - c. To find out more competent ways to destroy each other is the only point of interest for all the human beings
 - d. The humans are only interested in nothing else except for finding out more competent ways of destroying themselves
 - e. The only interest of all the human beings is to find out more competent ways of destroying themselves

Correct answer: a

Numerical Section :

Directions for answering the Data sufficiency type of GMAT questions:

Each of the data sufficiency problems consists of a question followed by two statements, namely (A) and (B). Here, you must decide whether the given data to solve the question is sufficient or not.

The correct answer to each question will be one of the following:

- a. if statement (A) alone is sufficient to answer the question but statement (B) alone is not sufficient
- b. if statement (B) alone is sufficient to answer the question but statement (A) alone is not sufficient
- c. if the two statements (A) and (B) taken together, are sufficient to answer the question, but neither statement alone is sufficient
- d. if each statement alone is sufficient to answer the question
- e. if the two statements taken together are still not sufficient to answer the question

1. **Identify whether the result of the following equation is an integer or not; if both x and y are integers?**

$$(x^2) - (y^2)$$

(A) $x = y$

(B) $y = 2$

- a. if statement (A) alone is sufficient to answer the question but statement (B) alone is not sufficient
 - b. if statement (B) alone is sufficient to answer the question but statement (A) alone is not sufficient
 - c. if the two statements (A) and (B) taken together, are sufficient to answer the question, but neither statement alone is sufficient
 - d. if each statement alone is sufficient to answer the question
 - e. if the two statements taken together are still not sufficient to answer the question
- Correct answer: a

Explanation:

It is given that both x and y are integers; therefore x^2 and y^2 will also be integers. From data (A), we get $x = y$. After substituting this value in the given equation, we get $y^2 - y^2 = 0$ which is an integer.

Hence only data (A) is sufficient to answer the question.
Hence option a is the correct answer.

2. **Find out whether the following equation is true or false?**

$$(a)^3 - (b)^3 = 0$$

(A) $a = 6$

(B) $b = -6$

- a. if statement (A) alone is sufficient to answer the question but statement (B) alone is not sufficient
 - b. if statement (B) alone is sufficient to answer the question but statement (A) alone is not sufficient
 - c. if the two statements (A) and (B) taken together, are sufficient to answer the question, but neither statement alone is sufficient
 - d. if each statement alone is sufficient to answer the question
 - e. if the two statements taken together are still not sufficient to answer the question
- Correct answer: c

Explanation:

According to data in (A), the value of a is 6. Using only this data we cannot find out whether the given equation is true or false.

Similarly, it is not possible to find out the answer by using only the data in (B) i.e. $b = -6$.

But, if we use both the data (A) and (B) and substitute the values of a and b in the given equation, we get $(a)^3 - (b)^3 = 0$ as, $(6)^3 - (-6)^3 = (216) - (-216) = 216 + 216 = 432$.

Hence, the given equation is false.

Hence, the correct answer is option c

3. **If $a = b^2 - 9$, then find out whether 'a' is divisible by 9?**

(A) $b = 3$

(B) $a - 27$ is divisible by 9

- a. if statement (A) alone is sufficient to answer the question but statement (B) alone is not sufficient
- b. if statement (B) alone is sufficient to answer the question but statement (A) alone is not sufficient
- c. if the two statements (A) and (B) taken together, are sufficient to answer the question, but neither statement alone is sufficient
- d. if each statement alone is sufficient to answer the question
- e. if the two statements taken together are still not sufficient to answer the question

Correct answer: a

Explanation:

By using the data in (A), we can write the given equation $a = b^2 - 9$ as, $a = (3)^2 - 9$ i.e. $a = 9 - 9$ i.e. $a = 0$; and 0 is not divisible by 9.

As we are able to answer the question with the help of only data (A), therefore, the correct answer is option a

4. **If $x^2 + y^2 + 2xy = 16$; is 'x' divisible by 10?**

(A) $x^2 + y^2 = 8$

(B) $y = 2$

- a. if statement (A) alone is sufficient to answer the question but statement (B) alone is not sufficient
- b. if statement (B) alone is sufficient to answer the question but statement (A) alone is not sufficient
- c. if the two statements (A) and (B) taken together, are sufficient to answer the question, but neither statement alone is sufficient
- d. if each statement alone is sufficient to answer the question
- e. if the two statements taken together are still not sufficient to answer the

question Correct answer: c

Explanation:

According to the data in (A), $x^2 + y^2 = 8$. When we substitute this value in the equation given in question, we get, $8 + 2xy = 16 \leftrightarrow 2xy = 16 - 8 \leftrightarrow 2xy = 8$.

Hence, we cannot solve the equation completely to find whether 'x' is divisible by 10 or no.

Now, if use the data in (B), then we can write the given equation as, $x^2 + (2)^2 +$

$$2(x)(2) = 16 \leftrightarrow x^2 + 4 + 4x = 16 \leftrightarrow x^2 + 4x = 12 \leftrightarrow x^2 + 4x - 16 = 0.$$

Hence, it is proved that, it is not possible to [find the value](#) of 'x' by using either only (A) or only (B).

But, by using both the data, we get

$$8 + 2(x)(2) = 16 \leftrightarrow 8 + 4x = 16 \leftrightarrow 4x = 8 \leftrightarrow x = 2.$$

Thus, the correct answer is option c.

5. **Find out the value of 'm'?**

(A) 'm' is a single digit, non-negative whole number?

(B) 'm' is an even number and the sum of its factors is less than the even number by 2.

- a. (A) ALONE is sufficient to answer the question but (B) alone is not sufficient
 - b. (B) ALONE is sufficient to answer the question but (A) alone is not sufficient
 - c. Both (A) and (B) TAKEN TOGETHER, are sufficient to answer the question, but NEITHER (A) nor (B) ALONE is sufficient
 - d. Both (A) and (B) ALONE are sufficient to answer the question
 - e. Both (A) and (B) TAKEN TOGETHER are still NOT sufficient to answer the question
- Correct answer: c

Explanation:

If we use only the data (A), we will not be able to find the exact value of 'm'; since there may be more than one even numbers whose sum of the factors may be less than the number by 2.

But, if use the data provided in both (A) and (B), we can surely find out the exact value of 'm' as follows:

The single digit even numbers that are less than 10 include the numbers 2, 4, 6 and 8.

Now, the factors of 2 are 1 and 2 and its addition is 3; which is not less than 2 by the even number 2.

The factors of 4 are 1, 2 and their addition is 3; which is not less than 2 by the even number 4.

The factors of 6 are 1, 2 and 3 and their addition is 6; which is less than 2 by the even number 6.

The factors of 8 are 1, 2 and 4 and their addition is 7; which is not less than 2 by the even number 8.

Hence, the correct answer is option c.

6. **Find the value of the variable 'b'; if $a*b = 15$ and both the variables belong to the set of integers.**

- A. a is less than b
- B. a is an odd number
- c. (A) ALONE is sufficient to answer the question but (B) alone is not sufficient
- d. (B) ALONE is sufficient to answer the question but (A) alone is not sufficient
- e. Both (A) and (B) TAKEN TOGETHER, are sufficient to answer the question, but NEITHER (A) nor (B) ALONE is sufficient
- f. Both (A) and (B) ALONE are sufficient to answer the question
- g. Both (A) and (B) TAKEN TOGETHER are still NOT sufficient to answer the question

Correct answer: e

Explanation:

First we will find the number of ways through which we get the product of two integers as 15.

$$1 * 15 = 15 \quad -1 * -15 = 15 \quad 3 * 5 = 15 \quad -3 * -5 = 15$$

There are in all 4 ways that give the product 15. But, not all of them satisfy the given conditions to find the correct value of 'b'.

Now, according to (A), a is less than b. There are two numbers 1 and 3 that satisfy this condition. Hence, it is not possible to find the exact value of 'b' using only (A).

Now, according to (B), a is an odd number. From the above results, 1, -1, 3, -3, 5, 5, 15, -15 are all odd numbers. Hence, it is not possible to find the exact value of 'b' using only (B).

Now, using both the given conditions, we can find the value of 'b' as, 1 and 3. Still we are unable to find the exact value of 'b'.

Therefore, we need more information to find the correct value of 'b'.

Hence, the correct answer is option e.

7. Find out whether 'm' is an integer or not?

. m^2 is an integer A.

2m is an integer

b. (A) ALONE is sufficient to answer the question but (B) alone is not sufficient

c. (B) ALONE is sufficient to answer the question but (A) alone is not sufficient

d. Both (A) and (B) TAKEN TOGETHER, are sufficient to answer the question, but

NEITHER (A) nor (B) ALONE is sufficient

e. Both (A) and (B) ALONE are sufficient to answer the question

f. Both (A) and (B) TAKEN TOGETHER are still NOT sufficient to answer

the question Correct answer: c

Explanation:

According to (A), m^2 is an integer.

Suppose, $m^2 = 3$, then m is not an integer.

But, if $m^2 = 16$, then $m = 4$ is definitely an integer.

Thus, using only the data (A), we cannot find the correct answer for the given question.

Now, according to data (B), $2m$ is an integer.

Say, $2m = 1$, then m is not an integer.

But, if $2m = 4$, then, $m = 2$ i.e. m is an integer.

Thus, using only the data (B), we cannot find the correct answer for the given question.

But, if we use both the data (A) and (B) together, only then, we can say that the given question is true or false.

Hence, the correct answer is option c.

8. State whether $x = 5$ is true or false.

. $(x - 5) (y - 4) = 0$

A. $y - 4 = 1$

b. (A) ALONE is sufficient to answer the question but (B) alone is not sufficient

c. (B) ALONE is sufficient to answer the question but (A) alone is not sufficient

d. Both (A) and (B) TAKEN TOGETHER, are sufficient to answer the question, but

NEITHER (A) nor (B) ALONE is sufficient

e. Both (A) and (B) ALONE are sufficient to answer the question

f. Both (A) and (B) TAKEN TOGETHER are still NOT sufficient to answer

the question Correct answer: e

Explanation:

As per the data (A), we can say that, $(x-5) = 0$ or $(y-4) = 0$ i.e. $x = 5$ or $y = 4$.

But, we cannot tell whether $x = 5$ is always true. Hence (A) alone is not sufficient.

As per the data (B), $y - 4 = 1$ i.e. $y = 1 + 4 \rightarrow y = 5$. There is no information regarding the value of 'x' in the given data (B).

Now, using both (A) and (B), still we cannot say anything about the value of x.

Hence, the correct answer is option e.

9. Find out whether a^4 is greater than a^2 ?

. a is non-negative A. a is not greater than 1

b. (A) ALONE is sufficient to answer the question but (B) alone is not sufficient

c. (B) ALONE is sufficient to answer the question but (A) alone is not sufficient

d. Both (A) and (B) TAKEN TOGETHER, are sufficient to answer the question, but

NEITHER (A) nor (B) ALONE is sufficient

e. Both (A) and (B) ALONE are sufficient to answer the question

f. Both (A) and (B) TAKEN TOGETHER are still NOT sufficient to answer

the question Correct answer: e

Explanation:

As per the data given in (A), a is a non-negative number i.e. $a > 0$.

Suppose, $a = 2$, then, $a^2 = 4$ and $a^4 = 16$. Hence, $a^4 > a^2$

Now, as per the data given in (B), a is less than 1.

Suppose, $a = -0.9$, then, $a^2 = 0.81$ and $a^4 = 0.6561$. Hence, $a^4 < a^2$ for all the values of a less than 1

The results obtained from both the given data (A) and (B) are not sufficient to find out whether a^4 is greater than a^2 .

Hence, the correct answer is option e.

10. Find out whether m is completely divisible by n or not.

. m is a positive integer and is divisible of 3 A.

n is a positive integer and is a multiple of 4

b. (A) ALONE is sufficient to answer the question but (B) alone is not sufficient

c. (B) ALONE is sufficient to answer the question but (A) alone is not sufficient

- d. Both (A) and (B) TAKEN TOGETHER, are sufficient to answer the question, but
NEITHER (A) nor (B) ALONE is sufficient
- e. Both (A) and (B) ALONE are sufficient to answer the question
- f. Both (A) and (B) TAKEN TOGETHER are still NOT sufficient to answer the question Correct answer: e

Explanation:

According to the data (A), $m > 0$ and m is divisible by 3. There is no data about the value of n .

Suppose, $m = 3$ and $n = 4$, then m is not completely divisible by n .

But, if $m = 12$ and $n = 4$, then m is completely divisible by n .

Hence, using only data (A) we cannot find the answer to the given question.

Now, according to the data (B), $n > 0$ and n is a multiple of 4. There is no data about the value of m .

Suppose, $n = 4$ and $m = 3$, then m is not completely divisible by n .

But, if $n = 8$ and $m = 24$, then m is completely divisible by n .

Hence, using only data (B) we cannot find the answer to the given question.

Now, using both the data (A) and (B),

Suppose, $m = 9$ and $n = 8$, then m is not completely divisible by n .

But, if $m = 12$ and $n = 12$, then m is completely divisible by n .

Thus, using both (A) and (B) also, we cannot find the correct answer to the given question.

Hence, the correct answer is option e.

11. Find out whether x is greater than y or not.

- A. $x + 2y = 20$
- B. $2x + y = 10$
- c. (A) ALONE is sufficient to answer the question but (B) alone is not sufficient
- d. (B) ALONE is sufficient to answer the question but (A) alone is not sufficient
- e. Both (A) and (B) TAKEN TOGETHER, are sufficient to answer the question, but
NEITHER (A) nor (B) ALONE is sufficient

- f. Both (A) and (B) ALONE are sufficient to answer the question
- g. Both (A) and (B) TAKEN TOGETHER are still NOT sufficient to answer the question

Correct answer: c

Explanation:

According to the data (A), $x + 2y = 20 \leftrightarrow x = 20 - 2y$.

Hence, we cannot the exact answer to the given question using only (A).

Now, according to the data (B), $2x + y = 10 \leftrightarrow 2x = 10 - 2y$.

Hence, we cannot the exact answer to the given question using only (B).

Now, using both data (A) and (B), we get, $x + 2y = 20 \leftrightarrow x = 20 - 2y$

$$2x + y = 10 \leftrightarrow 2x = 10 - 2y$$

$$\text{Thus, } 2(20 - 2y) = 10 - 2y \leftrightarrow 40 - 4y = 10 - y \leftrightarrow 40 - 10 = 4y - y \leftrightarrow 30 = 3y \leftrightarrow y = 3.$$

Substituting $y = 3$ in either of the equations (A) or (B), we get, x

$$+ 2y = 20 \leftrightarrow x + 2(3) = 20 \leftrightarrow x + 6 = 20 \leftrightarrow x = 14.$$

Therefore, using both (A) and (B) we can the exact answer to the given question.

Hence, the correct answer is option c.

12. Find out whether x is non negative integer or not.

. x^2 is a positive integer

A. $x^3 < x^2$

b. (A) ALONE is sufficient to answer the question but (B) alone is not sufficient

c. (B) ALONE is sufficient to answer the question but (A) alone is not sufficient

d. Both (A) and (B) TAKEN TOGETHER, are sufficient to answer the question, but

NEITHER (A) nor (B) ALONE is sufficient

- e. Both (A) and (B) ALONE are sufficient to answer the question
- f. Both (A) and (B) TAKEN TOGETHER are still NOT sufficient to answer

the question **Correct answer:** c

Explanation:

According to data (A), x^2 is a positive integer.

Suppose, $x = -2$, then $x^2 = 4$.

Now if, $x = 2$, then also $x^2 = 4$. The square of any number, positive or negative will always be positive. Hence, using only (A), we cannot determine the right answer.

According to data (B), $x^3 < x^2$

Suppose, $x = -2$, then, $x^3 = -8$ and $x^2 = 4 \leftrightarrow x^3 < x^2$

But, if $x = 2$, then, $x^3 = 8$ and $x^2 = 4 \leftrightarrow x^3 > x^2$

Hence, using only (B), we cannot determine the right answer.

Now, using both data (A) and (B), we come to the conclusion that, only for the negative values of x will satisfy both the conditions.

Hence, the correct answer is option c.

13. Find out whether the number 'p' is divisible by the number 9 or not. . p is a multiple of 3

- A. the sum of all the digits in p is divisible by 9
 - b. (A) ALONE is sufficient to answer the question but (B) alone is not sufficient
 - c. (B) ALONE is sufficient to answer the question but (A) alone is not sufficient
 - d. Both (A) and (B) TAKEN TOGETHER, are sufficient to answer the question, but NEITHER (A) nor (B) ALONE is sufficient
 - e. Both (A) and (B) ALONE are sufficient to answer the question
 - f. Both (A) and (B) TAKEN TOGETHER are still NOT sufficient to answer

the question **Correct answer:** b

Explanation:

According to the data (A), the number p is a multiple of 3.

Suppose, $p = 3$, then, p is not divisible by 9.

But, if $p = 18$, then, p is completely divisible by 9.

Hence, using only (A), we cannot determine the right answer.

According to the data (B), the sum of all the digits in p is divisible by 9.

Suppose, $p = 27$, then, $2 + 7 = 9$. Hence p is completely divisible by 9.

Hence, using only (B), we cannot determine the right answer.

Hence, the correct answer is option b.

14. Determine whether the product of the integers a and b is less than 25?

. The sum of integer a and integer b is less than 25 A.

Both the integers a as well as b are even numbers

b. (A) ALONE is sufficient to answer the question but (B) alone is not sufficient

c. (B) ALONE is sufficient to answer the question but (A) alone is not sufficient

d. Both (A) and (B) TAKEN TOGETHER, are sufficient to answer the question, but

NEITHER (A) nor (B) ALONE is sufficient

e. Both (A) and (B) ALONE are sufficient to answer the question

f. Both (A) and (B) TAKEN TOGETHER are still NOT sufficient to answer

the question Correct answer:

Explanation:

According to the data (A), the sum of the integer a and the integer b is less than 25.

Now, let us find out the pairs of numbers whose sum is less than 25, as follows,

(1, 23), (2, 22), (3, 21), (4, 20), (5, 19), (6, 18), (7, 17), (8, 16), (9, 15), (10, 14), (11, 13), (12, 12)

Hence, using only the data (A), we cannot determine the right answer.

According to the data (B), both the integers a as well as b are even numbers.

From the above pairs, (2, 22), (4, 20), (6, 18), (8, 16), (10, 14), (12, 12) satisfy this condition.

Hence, using only the data (B), we cannot determine the right answer.

But, as per the question, the product of these numbers should be less than 25. This condition is not satisfied by any of these pairs.

Therefore, we cannot determine the correct answer using the two (A) and (B) together as well.

Hence, the correct answer is option e.

15. a, b, c, d are four integers. Find out whether these four integers are consecutive or not.

. The sum of the squares of these four integers is 30

A. The sum of these four numbers is 10

b. (A) ALONE is sufficient to answer the question but (B) alone is not sufficient

c. (B) ALONE is sufficient to answer the question but (A) alone is not sufficient

d. Both (A) and (B) TAKEN TOGETHER, are sufficient to answer the question, but

NEITHER (A) nor (B) ALONE is sufficient

e. Both (A) and (B) ALONE are sufficient to answer the question

f. Both (A) and (B) TAKEN TOGETHER are still NOT sufficient to answer

the question Correct answer:

Explanation:

According to the data (A), the sum of the squares of these four integers is 30 i.e. $a^2 + b^2 + c^2 + d^2 = 30$

Hence, using only the data (A), we cannot determine the right answer.

Now, according to data (B), the sum of a, b, c and d is 10 i.e. $a + b + c + d = 10$.

Hence, using only the data (B), we cannot determine the right answer.

Now, using both (A) and (B), still we are unable to find the right answer to the given question.

Hence, the correct answer is option e.

16. Identify whether the following equation is true or false.

$$(2)^x * (2)^y = (2)^{x+y}$$

A. x is a whole number

B. y is a whole number

c. **if statement** (A) alone is sufficient to answer the question but statement (B) alone is not sufficient

- d. if statement (B) alone is sufficient to answer the question but statement (A) alone is not sufficient
- e. if the two statements (A) and (B) taken together, are sufficient to answer the question, but neither statement alone is sufficient
- f. if each statement alone is sufficient to answer the question
- g. if the two statements taken together are still not sufficient to answer the question

Correct answer: e

Explanation:

It is given that both x and y are whole numbers; therefore 2^x and 2^y will also belong to the set of whole numbers.

From data (A), we get x is a whole number. Suppose $x = 4$, then after substituting this value in the given equation, we get $2^4 * 2^y = 2^{4+y}$

Hence only data (A) is not sufficient to answer the question.

Now, from data (B), we get y is whole number. Suppose $y = 2$, then after substituting this value in the given equation, we get $2^4 * 2^2 = 2^{4+2} = 2^6 = 64$

Hence only data (A) is also not sufficient to answer the question.

Hence option e is the correct answer.

17. Find out whether the value of 'm' for the equation $m^5 - 48 = (-16)$ is divisible by 2 or not?

. 'm' is a positive integer

- A. 'm' is an even number
 - b. if statement (A) alone is sufficient to answer the question but statement (B) alone is not sufficient
 - c. if statement (B) alone is sufficient to answer the question but statement (A) alone is not sufficient
 - d. if the two statements (A) and (B) taken together, are sufficient to answer the question, but neither statement alone is sufficient
 - e. if each statement alone is sufficient to answer the question
 - f. if the two statements taken together are still not sufficient to answer the question
- Correct answer:** d

Explanation:

According to data in (A), m is a positive integer. Using only this data we can find out the value of ' m ' as follows: $m^5 - 48 = (-16) \rightarrow m^5 = (-16) + 48 \rightarrow m^5 = 32 \rightarrow m = 32^{1/5} \rightarrow m = 2$. Therefore, ' m ' is divisible by 2.

Hence, we can find whether the value of ' m ' is divisible by 2 or not using only the data (A).

Similarly, it is possible to find out the correct answer by using only the data in (B) i.e. ' m ' is an even number.

Hence, the correct answer is option d

18. Find out the value of 'x'?

. $6x - 4y = 4$

- A. $y = 5$
 - b. if statement (A) alone is sufficient to answer the question but statement (B) alone is not sufficient
 - c. if statement (B) alone is sufficient to answer the question but statement (A) alone is not sufficient
 - d. if the two statements (A) and (B) taken together, are sufficient to answer the question, but neither statement alone is sufficient
 - e. if each statement alone is sufficient to answer the question
 - f. if the two statements taken together are still not sufficient to answer the question
- Correct answer:** c

Explanation:

By using the data in (A), we get, $6x - 4y = 4 \rightarrow 6x = 4 + 4y \rightarrow x = (4 + 4y) / 6$

Hence, we are not able to [find the value](#) of ' x ' with the help only the data in (A).

Now, according to the data in (B), $y = 5$.

After substituting the value of y in the equation given in data (A), we get,

$$6x - 4(5) = 4 \rightarrow 6x = 4 + 20 \rightarrow 6x = 24 \rightarrow x = 24/6 \rightarrow x = 4.$$

Therefore, we are able to find the value of ' x ' using both the data (A) as well as (B), but not using any of the statements alone.

Hence, the correct answer is option c.

19. **Find out whether the number 'x' is completely divisible by 8 or not?**

. x is an odd number and belongs to the set of integers

- A. $x = 4567$
 - b. if statement (A) alone is sufficient to answer the question but statement (B) alone is not sufficient
 - c. if statement (B) alone is sufficient to answer the question but statement (A) alone is not sufficient
 - d. if the two statements (A) and (B) taken together, are sufficient to answer the question, but neither statement alone is sufficient
 - e. if each statement alone is sufficient to answer the question
 - f. if the two statements taken together are still not sufficient to answer the question
- Correct answer: b**

Explanation:

According to the data in (A), x is an odd number and belongs to the set of integers. Using this data it is not possible to find out the answer for the question.

Hence, data (A) alone is not sufficient to find the answer to the question.

Now, according to the data in (B), $x = 4567$

The divisibility rule for the integer 8 states that, a number is completely divisible by 8 if the last three digits are zero or the number formed by the last three digits is divisible by 8 completely.

According to [this](#) rule, the last three numbers are not equal to 0. Hence, we will check whether the number formed by the last three digits i.e. '567' is divisible by 8 or not.

The number '567' is not divisible by 8. Hence, the number '4567' i.e. 'x' is not divisible by 8 completely.

Hence, it is proved that, we can answer the question using the data in (B) alone, but not the data in (A).

Hence, the correct answer is option b.

20. **Find out the value of the divisor 'd', where d is a positive integer.**

. 'd' when divided by 7 gives a remainder of 3

- A. The quotient is a prime number between 3 and 7
- b. if statement (A) alone is sufficient to answer the question but statement (B) alone is not sufficient
- c. if statement (B) alone is sufficient to answer the question but statement (A) alone is not sufficient

- d. if the two statements (A) and (B) taken together, are sufficient to answer the question, but neither statement alone is sufficient
- e. if each statement alone is sufficient to answer the question
- f. if the two statements taken together are still not sufficient to answer the question **Correct answer:** c

Explanation:

According to the rule of divisibility,

$$\text{Dividend} = \text{divisor} * \text{quotient} + \text{remainder} \text{-----(I)}$$

Now, according to the data in (A), 7 is the divisor and 3 is the remainder,

After substituting these values in the equation (I), we get,

$$\text{Dividend (d)} = 7 * \text{quotient} + 3$$

Hence, it is not possible to find the value of the dividend using only the data in (A).

Now, according to the data in (B), quotient is a prime number between 3 and 7.

Hence, we can conclude that the quotient is 5 as it is the only prime number that lies between 3 and 7.

Hence, we can write equation (I) as follows,

$$\text{Dividend (d)} = 7 * 5 + 3 \rightarrow d = 35 + 3 \rightarrow d = 38.$$

Thus we are able to answer the question if we use both the data in (A) and (B) together.

Hence, the correct answer is option c.

21. **Find the value of the variable 'x'; if $2^4 = 4^x$.**

- A. x belongs to the set of integers
- B. x is an even number
- c. (A) ALONE is sufficient to answer the question but (B) alone is not sufficient
- d. (B) ALONE is sufficient to answer the question but (A) alone is not sufficient
- e. Both (A) and (B) TAKEN TOGETHER, are sufficient to answer the question, but NEITHER (A) nor (B) ALONE is sufficient
- f. Both (A) and (B) ALONE are sufficient to answer the question
- g. Both (A) and (B) TAKEN TOGETHER are still NOT sufficient to answer the question

Correct answer: d

Explanation:

According to the data in statement A, 'x' belongs to the set of integers. Means that 'x' can attain either positive or negative values.

Now, using this data, let us try to solve the question.

It is given that $2^4 = 4^x$

We have to find the value of 'x' which is an integer.

Now, $2 * 2 * 2 * 2 = 16$

And $4 * 4 = 16$

Hence, the value of 'x' = 2

Thus, with the help of this data alone we can find the exact answer to the question.

Now, according to the data in statement B, 'x' is an even number.

With the help of this data also we can find out the answer to the question by starting with the smallest even number and substituting it in place of 'x' as follows.

The smallest even number = 2.

Now, substituting $x = 2$ in 4^x we get the answer as 16.

Also, $2^4 = 16$, hence, the value of x is 2.

Since, we are able to answer the question using each of the data alone hence the correct answer is option d.

22. Find out whether 'a' is a positive or a negative integer?

. $a + b = 10$

A. $a - b = 5$

b. (A) ALONE is sufficient to answer the question but (B) alone is not sufficient

c. (B) ALONE is sufficient to answer the question but (A) alone is not sufficient

- d. Both (A) and (B) TAKEN TOGETHER, are sufficient to answer the question, but
NEITHER (A) nor (B) ALONE is sufficient
- e. Both (A) and (B) ALONE are sufficient to answer the question
- f. Both (A) and (B) TAKEN TOGETHER are still NOT sufficient to answer the question **Correct answer:** c

Explanation:

From the data in statement A, $a + b = 10$.

Using this data alone, it is not possible to say whether the value of 'a' is positive or negative.

Hence, option 'a' and option 'd' cannot be the right answer.

Now, from the data in statement B, $a - b = 5$.

Using this data alone also it is not possible to say whether the value of 'a' is positive or negative.

Hence, option 'b' and option 'd' cannot be the right answer.

Now, using both the data together as follows,

$$a + b = 10 \dots\dots\dots i$$

$$a - b = 5 \dots\dots\dots ii$$

Adding equations I and ii, we get,

$$2a = 15 \therefore$$

$$a = 7.5$$

This, proves that using both the data A and B together, we can say that the value of 'a' is a positive integer.

Hence, the correct answer is option c.

23. Find out whether $y = 7$ is true or false?

$$(x - 6)(y - 7) = 0$$

A. $y - 7 = 1$

b. (A) ALONE is sufficient to answer the question but (B) alone is not sufficient

- c. (B) ALONE is sufficient to answer the question but (A) alone is not sufficient
- d. Both (A) and (B) TAKEN TOGETHER, are sufficient to answer the question, but NEITHER (A) nor (B) ALONE is sufficient
- e. Both (A) and (B) ALONE are sufficient to answer the question
- f. Both (A) and (B) TAKEN TOGETHER are still NOT sufficient to answer the question **Correct answer:** b

Explanation:

As per the data in statement (A), we can say that, $(x - 6) = 0$ or $(y - 7) = 0$ i.e. either $x = 6$ or $y = 7$.

But, there is no proof that $y = 7$ is always true. Hence data (A) alone is not sufficient to answer the question.

Hence, option 'a' cannot be the answer.

Now, as per the data in statement (B), $y - 7 = 1$ i.e. $y = 1 + 7 \rightarrow y = 8$.

Thus, we are able to answer the question with the help of only the data in (B).

Hence, the correct answer is option b.

24. What is the value of q for the following?

. $\sin q = 1$

A. $\cos q$ is positive

- b. (A) ALONE is sufficient to answer the question but (B) alone is not sufficient
- c. (B) ALONE is sufficient to answer the question but (A) alone is not sufficient
- d. Both (A) and (B) TAKEN TOGETHER, are sufficient to answer the question, but NEITHER (A) nor (B) ALONE is sufficient
- e. Both (A) and (B) ALONE are sufficient to answer the question
- f. Both (A) and (B) TAKEN TOGETHER are still NOT sufficient to answer

the question **Correct answer:** a

Explanation:

As per the data given in (A), the value of $\sin q = 1$.

$$\therefore q = \sin^{-1}(1) \therefore$$

$$q = 90 \text{ degree}$$

Thus, we are able to find out the answer of the question, using only the data in statement (A).

Now, let us see if we can find out the answer using the data in statement (B).

As per the data in (B), $\cos \theta$ is positive.

But, the value of $\cos \theta$ is positive for more than one values of θ

Hence, we cannot determine the answer to the question using only the data in (B).

Hence, the correct answer is option a.

25. Calculate the time required to cover a distance of 10

km. . Speed is positive A. Speed = 5 km / hr

b. (A) ALONE is sufficient to answer the question but (B) alone is not sufficient

c. (B) ALONE is sufficient to answer the question but (A) alone is not sufficient

d. Both (A) and (B) TAKEN TOGETHER, are sufficient to answer the question, but NEITHER (A) nor (B) ALONE is sufficient

e. Both (A) and (B) ALONE are sufficient to answer the question

f. Both (A) and (B) TAKEN TOGETHER are still NOT sufficient to answer the question

Correct answer: b

Explanation:

According to the data in (A), speed is a positive factor. But, there is no data about the exact value of speed.

Thus, it is not possible to calculate the time factor using only the data in (A).

Now, as per the data in statement (B), speed = 5 km / hr

According to the standard [mathematical](#) formula for calculating distance, time and speed,

$$\text{Time} = \text{distance} / \text{speed}$$

After substituting the values of distance and speed in this formula, we can calculate the time factor as,

Time = 10 km / 5 km per hour

∴ Time = 2 hours.

Thus, we are able to answer the question using the data in (B) alone.

Hence, the correct answer is option b.

26. Which is the smallest number that is divisible by both 14 as well as 21?

- A. The result is a two digit number B. The sum of the digits is equal to 12
- c. (A) ALONE is sufficient to answer [the question](#) but (B) alone is not sufficient
- d. (B) ALONE is sufficient to answer the question but (A) alone is not sufficient
- e. Both (A) and (B) TAKEN TOGETHER, are sufficient to answer the question, but NEITHER (A) nor (B) ALONE is sufficient
- f. Both (A) and (B) ALONE are sufficient to answer the question
- g. Both (A) and (B) TAKEN TOGETHER [are still](#) NOT sufficient to answer the question

Correct answer: c

Explanation:

[According to the data](#) in statement (A), the smallest number that is divisible by both 14 as well as 21 is a two digit number.

But, it is not possible to find out the correct answer using only (A), because there are so many two digit numbers.

Hence, option (a) and option (d) cannot be the right answer.

Using only data in (B), we end up with so many numbers whose digits sum up to 12. Hence, it is not possible to find out the correct answer using only (B) as well.

Thus, option (b) also cannot be the right answer.

Now, as per the data in both statement (A) and statement (B), the sum of the digits of the resultant number is equal to 12.

Now, we can find out the numbers whose digits sum upto 12 as follows.

39, 48, 84 and 93

Of all these numbers we can easily find out the number that is divisible by both 14 and 21 as 84.

Hence, we are able to find out the answer using both (A) and (B), therefore the correct answer is option c.

27. **Find out the product of 'a' and 'b' i.e. ab.**

. $a + b = 3$ A.

$a^2 + b^2 = 8$

b. (A) ALONE is sufficient to answer the question but (B) alone is not sufficient

c. (B) ALONE is sufficient to answer the question but (A) alone is not sufficient

d. Both (A) and (B) TAKEN TOGETHER, are sufficient to answer the question, but

NEITHER (A) nor (B) ALONE is sufficient

e. Both (A) and (B) ALONE are sufficient to answer the question

f. Both (A) and (B) TAKEN TOGETHER are still NOT sufficient to answer

the question **Correct answer:** c

Explanation:

As per the data in statement (A), $a + b = 3$.

Using this data alone, it is not possible to find out the product of 'a' and 'b'.

Hence, option 'a' and option 'd' cannot be the right answer.

Now, as per the data in statement (B), $a^2 + b^2 = 8$.

Using this data alone also it is not possible to find out the product of 'a' and 'b'.

Hence, option 'b' and option 'd' cannot be the right answer.

Now, using both the data (A) and (B) together let us try to solve the question as follows

According to the standard mathematical $(a + b)^2 = a^2 + 2ab + b^2$

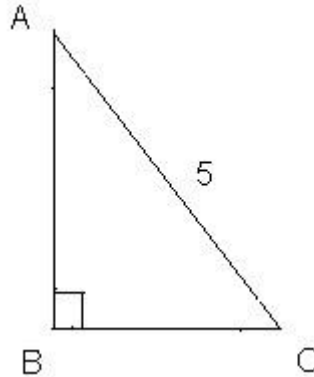
Now, substituting the values in this formula we get,

$$(3)^2 = 8 + 2ab \rightarrow 9 - 8 = 2ab \rightarrow 1 = 2ab \rightarrow ab = 1 / 2$$

Thus, we are able to find the answer using both (A) and (B) together, but neither of them alone.

Hence, the correct answer is option c.

28. Find out the length of the side AB of the following triangle.



. Triangle ABC is a right angled triangle

A. Length of side AC = 5 cm

b. (A) ALONE is sufficient to answer the question but (B) alone is not sufficient

c. (B) ALONE is sufficient to answer the question but (A) alone is not sufficient

d. Both (A) and (B) TAKEN TOGETHER, are sufficient to answer the question, but NEITHER (A) nor (B) ALONE is sufficient

e. Both (A) and (B) ALONE are sufficient to answer the question

f. Both (A) and (B) TAKEN TOGETHER are still NOT sufficient to answer the question

Correct answer: e

Explanation:

As per the data in statement (A), triangle ABC is a right angled triangle.

From this data we can only say that the side AC is the hypotenuse, but, we cannot find the length of the side AB.

Hence, option 'a' and option 'd' cannot be the right answer.

Now, as per the data (B), length of side AC i.e. the hypotenuse = 5 cm.

But, from this data also we cannot find the length of side AB as well. Hence, option 'b' also is not the right answer.

Now, using both data (A) and (B), together

According to the Pythagoras theorem, $AC^2 = AB^2 + BC^2$

But, we know the length of only side AC. Thus, we cannot determine the length of side AC.

Hence, option 'c' is not the right answer.

Hence, the correct answer is option e.

29. What is the area of the square?

. Side of a square = 6 cm

A. Perimeter of a square = 24 cm

b. (A) ALONE is sufficient to answer the question but (B) alone is not sufficient

c. (B) ALONE is sufficient to answer the question but (A) alone is not sufficient

d. Both (A) and (B) TAKEN TOGETHER, are sufficient to answer the question, but

NEITHER (A) nor (B) ALONE is sufficient

e. Both (A) and (B) ALONE are sufficient to answer the question

f. Both (A) and (B) TAKEN TOGETHER are still NOT sufficient to answer

the question **Correct answer:** d

Explanation:

As per the data given in statement (A), the length of the side of a square = 6 cm.

∴ We can calculate the area of the square as follows,

Area of square = side * side = 6 * 6 = 36 square cm.

Hence, option 'c' and option 'e' cannot be the right answers.

Now, as per the data in statement (B), the perimeter of a square = 24 cm.

Perimeter = sum of all the sides

Since a square has 4 sides, thus perimeter of a square = 4 * side

∴ The length of each side of the square = 24 / 4 = 6 cm.

Hence, we can calculate the area of a square as side * side = 6 * 6 = 36 square cm.

This proves that, we can find the answer using both the data (A) as well as (B) alone.

Hence, the correct answer is option d.

30. **Calculate the distance to be covered if**

. Time = 2 hours

a. Speed = 3 km / hr

b. (A) ALONE is sufficient to answer the question but (B) alone is not sufficient

c. (B) ALONE is sufficient to answer the question but (A) alone is not sufficient

d. Both (A) and (B) TAKEN TOGETHER, are sufficient to answer the question, but

NEITHER (A) nor (B) ALONE is sufficient

e. Both (A) and (B) ALONE are sufficient to answer the question

f. Both (A) and (B) TAKEN TOGETHER are still NOT sufficient to answer

the question **Correct answer:** c

Explanation:

As per the data in (A), time = 2 hours.

But, according to the standard mathematical formula for calculating distance, time and speed,

Distance = Speed * Time

As we know only the time factor, it is not possible to calculate the distance using only the data in (A).

Hence, option 'a' and option 'd' cannot be the right answers.

Now, as per the data in statement (B), speed = 3 km / hr

According to the standard mathematical formula for calculating distance, time and speed,

Distance = Time * Speed

As we know only the speed factor, it is not possible to calculate the distance using only the data in (B).

Hence, option 'b' cannot be the right answer.

Now, using both the data in (A) and (B) together

After substituting the values of time and speed in this formula, we can calculate the distance covered as,

$$\text{Distance} = 2 \text{ hours} * 3 \text{ km / hr}$$

$$\therefore \text{Distance} = 6 \text{ km.}$$

Thus, we are able to answer the question using data (A) as well as (B), but neither of them alone.

Hence, the correct answer is option c.

Numerical Section : Problem Solving Ability

1. **One of the sides of a square measures 10 cm in length. If we increase the size of two opposite sides by a couple of centimeters and decrease the length of the remaining two opposite sides by the same measure, then what will be the area of the resulting figure in meter?**

- a. 192 m
- b. 19.2 m
- c. 192 cm
- d. 1.92 m
- e. 0.192 m **Correct answer: e**

Explanation:

It is given that the sides of the square measure 10cm in length. Therefore the area of square is side * side = $10 * 10 = 100$ square cm.

Now, the question says that the length of some two opposite sides is reduced by a couple of centimeters i.e. it is reduced by 2 cm and the length of the other two opposite side is increased by the same measure i.e. 2 cm only.

Hence, as per this, the length of the sides of the square has changed to 8 cm and 12 cm respectively. From this we can conclude that the resulting figure is a rectangle.

Now the area of a rectangle is 2 * length * breadth = $2 * 8 * 12 = 192$ square cm.

But the question asks the area in meters. Hence, $192 \text{ cm} = 192 * 10^{-3} \text{ meter} = 0.192$ square meter.

Hence the correct answer is option e.

2. **If a man drives a car at a speed of 50 km per hour; then calculate the distance covered by the man in 10 minutes if he is driving at the same speed constantly.**

- a. 8.000 km
- b. 8.900 km
- c. 8.350 km
- d. 8.335 km
- e. 0.875 km **Correct answer: d**

Explanation:

It is given that man is driving at a speed of 50 km/hr for 10 minutes.

We know that, distance = speed * time-----(i)

After substituting the value of speed and time in this formula we get,

Distance = 50 km/hr * 10 minutes-----(ii)

Now, 1 hour = 60 minutes Therefore, x hours = 10 minutes $\rightarrow x = 10 / 60 \rightarrow x = 0.1667$ hours.

Now, substituting the value of 'x' in equation (ii), we get,

Distance = 50km/hr * 0.1667 hr

\therefore Distance = 8.335 km

Hence, the correct answer is option d.

3. **If the scale used for drawing a map states that the actual distance of 50 km is represented by 1cm on the map; then according to this scale what will be the actual distance between Los Angeles and Washington D.C. if Washington D.C. is 12.22 cm away from America on the map?**

- a. 611 km
- b. 61 km
- c. 61.1 km
- d. 611 cm
- e. None of the above **Correct answer: a**

Explanation:

It is given that, 1cm on map is equal to 50 km on the road.

We have to find out the actual distance for a distance of 12.22cm on the map.

We can write the above equalities as follows,

$$1 \text{ cm} = 50 \text{ km} \quad \backslash \quad 12.22 \text{ cm} = \text{say 'x' cm.} \quad \therefore$$

$$x = 50 * 12.22 = 611 \text{ km.}$$

Hence, the correct answer is option a.

4. **It is given that the weight of an empty box is 1000 gm and the total weight of the box when filled with apples and mangoes is 10kg. If there are 3 dozens of apple in the box and the weight of each apple is 200 gm whereas the weight of every mango is 300 gm, then, find out the total number of mangoes in the box.**

- a..... 3
b..... 3
c..... 3
de. None of the above 5

Correct answer: a

Explanation:

According to the data given in the question:

Weight of an empty box is 1000 gm = 1kg

Total weight of the box when filled with apples and mangoes is 10kg = 10000 gm

There are 3 dozens of apple in the box = $12 * 3 = 36$ apples in all

Weight of each apple is 200 gm and

$$\therefore \text{Weight of an empty box i.e. 36 apples} = 200\text{gm} * 36 = 7200\text{gm}$$

Now weight of total mangoes in the box = (Total weight of the box when filled with apples and mangoes) – (Weight of an empty box + Weight of an empty box)

$$\therefore \text{Weight of total mangoes in the box} = (10000) - (1000 + 7200) = (10000 - 8200)$$

$$\therefore \text{Weight of total mangoes in the box} = 1800$$

But, it is given that weight of every mango is 300 gm.

Hence, weight of say 'x' mangoes = 1800 gm \therefore

$$x = 1800 / 300 = 6$$

Therefore, there are in all 6 mangoes in the box.

Hence, the correct answer is option a.

5. **If we increase the area of a circle by 32 % then, calculate the approximate increase in the radius of the same circle in terms of percentage.**

- a. 32 %
- b. 42 %
- c. 22 %
- d. 20 %
- e. None of the above

Correct answer: d

Explanation:

Area of a circle = $\pi * \text{radius} * \text{radius}$

Say for example radius = 4 units and $\pi = 3.14$

Then area of this circle = $\pi * 4 * 4 = 3.14 * 4 * 4 = 55.04$

Now, we have to find out the percentage increase in the radius if we increase the area by 32 %.

$$(32 * 55.04) / 100 + (55.04) = 72.6258$$

This is 32 percent increased area of the circle.

Now, we have to find out the radius,

Say 'x' is the percentage increase in the radius of the circle.

$$\text{Therefore, } \pi * (x + 4) * (x + 4) = 72.6258$$

$$\therefore (x + 4)^2 = 72.6258 / 3.14 = 0.004$$

On solving the equation we can say that, for 20% increase in the radius the area of the circle increases by 32%.

Hence, the correct answer is option d.

Solve the following questions and select the correct answer from the given five options.

6. **Tim, Tom and Max decide to go out for dinner. Tom had \$ 50 whereas; Tim and Max had \$ 110 and \$ 400 respectively. The bill charged them \$ 113 for their dinner. They paid \$ 120 and the extra \$ 7 was given as a tip to the waiter who served them. They first decide to share the bill equally. But, since Tim had very less money with him he paid only 25 % of the bill whereas; Tom and Max paid 35 % and 40 % of the bill respectively. Calculate the amount of money paid by Tim.**
- a. \$ 30
 - b. \$ 42
 - c. \$ 48
 - d. \$ 50
 - e. None of the above

Correct answer: a

Explanation:

Tom had \$ 50, Tim had \$ 110, and Max had \$ 400 respectively.

The total bill for the dinner = \$ 113.

They paid \$120 and gave the extra \$7 as tip.

Tim paid 25 % of the bill. $\therefore (25 * 120) / 100 = \$ 30$

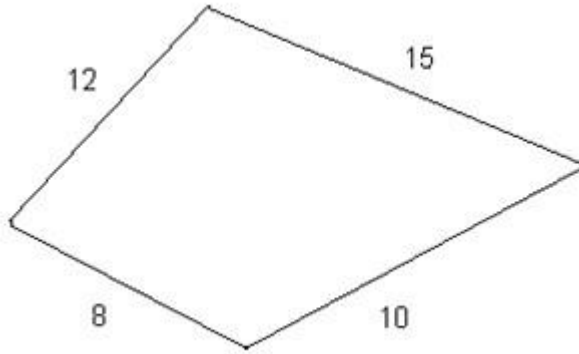
Tom paid 35 % of the bill. $\therefore (35 * 120) / 100 = \$ 42$

Tim paid 25 % of the bill. $\therefore (40 * 120) / 100 = \$ 48$ From

this we come to know that Tim paid \$ 30 for dinner.

Hence, the correct answer is option a.

7. **The measures of the sides of an irregular polygon are given in the figure as follows. Look at the figure and calculate the perimeter of the irregular polygon.**



- a. 20 m
- b. 35 m
- c. 30 m
- d. 45 m
- e. None of the above

Correct answer: d

Explanation:

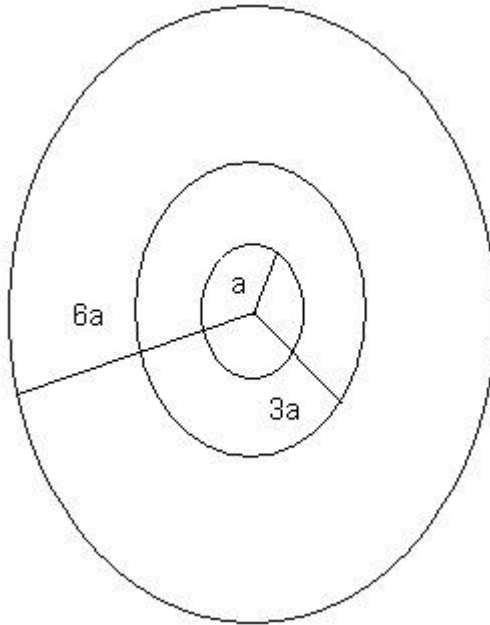
Perimeter of an irregular polygon is equal to the sum of all its sides.

According to the data given in the question, the sides measure as 8, 10, 12 and 15

Hence, we can calculate the perimeter of this figure as $(8 + 10 + 12 + 15 = 45 \text{ m})$

Hence, the correct answer is option d.

8. **Consider the following figure and find out the ratio between the areas of the largest and the smallest circles. Given that all the circles are drawn considering the same center i.e. all the circles are concentric.**



- a. 1 : 3
- b. 3 : 1
- c. 1 : 6
- d. 6 : 1
- e. 6 : 3

Correct answer: d

Explanation:

According to the figure, the radius of the circles are denoted by a , $3a$ and $6a$ where ' a ' can be any variable that represents certain value or some unit of measurement.

From the figure we can say that the radius of the smallest circle is ' a '.

The radius of the middle circle is $3a$ and the radius of the outermost circle is $6a$.

Now, we have to find out the ratio between the areas of the biggest and the smallest circles.

We know that, area of a circle = $\pi \times \text{radius} \times \text{radius} = \pi (\text{radius}^2)$

Therefore, area of the smallest circle = $\pi (a^2)$

And area of the largest circle = $\pi (6a^2)$

Hence, Ratio of the areas of these circles = $\pi (6a^2) : \pi (a^2) = 6 : 1$

∴ The areas of the biggest and the smallest circles are in the ratio 6: 1 Hence,
the correct answer is option d.

9. **If $a + b = 10$ and $a - b = 20$, then what will be the value of a/b ?**

- a. $10/20$
- b. $1/3$
- c. $-1/3$
- d. -3
- e. None of the above **Correct answer: c**

Explanation:

According to the data given in the

question, $a + b = 10$ -----i $a - b =$

20 -----ii

On adding equations I and ii we get,

$$2a = 30 \therefore$$

$$a = 15$$

Substituting the value of 'a' in equation I we get,

$$15 + b = 10 \therefore$$

$$b = 10 - 15 \therefore$$

$$b = -5$$

Hence we have the values of 'a' and 'b' as $a = 15$ and $b = -5$

Now, we have to find out the value of a/b

$$\therefore a/b = 15/-5 \therefore a/b = 3/-1 = -3$$

Hence, the correct answer is option d.

10. **The ratio between the ages of Mary and her mother is 1: 2 and that of Mary and her father is 1: 3 at the time of Mary's birth. Mary is 10 years old now. Find out the ratio between the ages of Mary's mother and father at this age of Mary.**

- a. 1 : 2
- b. 1 : 3
- c. 2 : 3
- d. 3 : 2
- e. None of the above **Correct answer: c**

Explanation:

According to the data given in the question, when Mary took birth,

The ratio between the ages of Mary and her mother is 1: 2

The ratio between the ages of Mary and her father is 1: 3

Now, if we say 'x' is the age of Mary when she is born

Hence, we can say that her mother's age is 2x and her father's age is 3x-----i

Now, Mary is 10 years old.

Therefore, from equation 1 we can say,

Her mother's age is 2x i.e. $2 * 10 = 20$ and her father's age is 3x i.e. $3 * 10 = 30$ at this age of Mary.

Thus, the ages of Mary's mother and Mary's father are in the ratio $20:30 = 2:3$

Hence, the correct answer is option c.

Solve the following questions and select the correct answer from the given five options.

11. If $4^{5x} = 1024$, then find out the value of 'x' to get this result. a. 2
- b. 3
 - c. 4
 - d. 5
 - e. 1

Correct answer: e

Explanation:

According to the data given in the question, we know that the result is a multiple of 4. Also, since 4 is raised to power 5 first we will find out the result of 4 raised to the power 5.

Therefore, we get, $4^5 = 1024$ i.e. $4^{5*1} = 1024$

Hence, the correct answer is option e.

12. In some arithmetic sequence, the sum of the digits of the third term is 27 and the fourth term is 81. What is the fifth term in this arithmetic sequence? a. 243

- b. 81
- c. 9
- d. 27
- e. 3

Correct answer: a

Explanation:

According to the data given in the question, all the numbers are in arithmetic sequence.

The third term in the sequence is 27 and the fourth term in the sequence is 81.

From this we can say that the numbers are in the sequence of increasing powers of 3, because 3 raised to the power 3 = 27 and 3 raised to the power four is 81.

This means we have to find out the value of 3^5 , which is ultimately the fifth term of the sequence.

$$\therefore 3^5 = 243.$$

Hence, the correct answer is option a

13. Andrew purchased 3 science text books and 5 mathematics text books. If the average cost of Andrew's science text books was \$75 and the average cost of his mathematics text books was \$150, then find out the average cost of the total number of books purchased by Andrew.

- a. 30.125
- b. 25.125
- c. 28.125
- d. 55.550
- e. 75.125 **Correct answer:** c

Explanation:

According to the data given in the question, Andrew purchased 3 text books of science and 5 text books of mathematics respectively.

Number of science text books = 3

Average cost of 3 science text books = \$75

∴ Cost of 1 science text book = $\$75/3 = \25

Number of mathematics text books = 5

Average cost of 5 mathematics text books = \$150 ∴

Cost of 1 mathematics text book = $\$150/5 = \30 Total

number of text books purchased by Andrew = $3 + 5 =$

8

∴ Average Cost of all the text books = $(\$75 + \$150)/8 = \$28.125$

Hence, the correct answer is option c

14. **If $(a/b) = 0.6789$, then find the value of the reciprocal of the same fraction.**

a. (b/a)

b. 0.6789

c. -0.6789

d. 1.4729

e. -1.4729 **Correct answer: d**

Explanation:

According to the data given in the question the value of $(a/b) = 0.6789$

We have to find the value of the reciprocal of this fraction which means we have to find the value of (b/a) .

∴ If $(a/b) = 0.6789$, then $(b/a) = (1/0.6789)$

∴ $(b/a) = 1.4729$

Hence, the correct answer is option d.

15. **If $3 - a = 6(1 - a)$, then find the value of 'a' according to this equation.** a. $1/5$

- b. $2/5$
- c. $3/5$
- d. $4/5$
- e. None of the above **Correct answer: c**

Explanation:

According to the data given in the question,

$$3 - a = 6(1 - a) \text{-----i}$$

$$\therefore 3 - a = 6 - 6a$$

$$\therefore 6a - a = 6 - 3$$

$$\therefore 5a = 3 \therefore a =$$

$$3/5$$

Hence, the correct answer is option c.

Solve the following questions and select the correct answer from the given five options.

16. A line named as XY consists of two other points namely A and B between the two end points. The distance between the points X and A is 10 units and the distance between the points B and Y is also 10 units. The line segment XB measures 20 units in length. Find out the distance between the points A and B respectively.

- a. 10
- b. 20
- c. 30
- d. 15
- e. None of the above

Correct answer: a

Explanation:

According to the data given in the question, we can draw a line XABY of total length as 30 units.

The length of line segment XA is 10 units.

The length of line segment YB is 10 units.

The length of line XY is 30 units.

∴ We can make an equation using this data as follows:

$$XY = XA + AB + BY$$

$$\therefore 30 = 10 + AB + 10$$

$$\therefore AB = 30 - 20$$

$$\therefore AB = 10 \text{ units}$$

Hence, the correct answer is option a.

17. If the square root of the cube root of some positive integer is 2, then find the integer which results in this answer.

- a. 4
- b. 8
- c. 16
- d. 32
- e. 64 **Correct answer: e**

Explanation:

According to the data given in the question, the square root of the cube root of some positive integer is 2.

Let this integer be 'a'.

Then, according to the above mentioned condition,

$$((a)^{1/3})^{1/2} = 2$$

∴ Taking squares on both the sides of the equation we get, $(a)^{1/3} = (2)^2 = 4$

Now, taking cubes on both the sides of the equation we get, $(a) = (4)^3 = 64$ ∴

$$a = 64$$

Hence, the correct answer is option e.

18. If $5a + 6b = 30$ and $a - 6b = 6$, then find the value of the variables 'a' as well as 'b'.

- a. 30, 6
- b. 5, 30
- c. 6, 30
- d. 30, 4
- e. None of the above **Correct answer:** e

Explanation:

According to the data given in the question,

$$5a + 6b = 30 \text{-----i}$$

$$a - 6b = 6 \text{-----ii}$$

Now adding equations I and ii, we get,

$$6a = 36 \therefore$$

$$a = 6$$

Now, substituting this value of 'a' in equation ii, we get,

$$6 - 6b = 6$$

$$\therefore 6 - 6 = 6b$$

$$\therefore 0 = 6b \therefore b$$

$$= 0/6 \therefore b =$$

$$0$$

Hence, the derived values of 'a' and 'b' are 6 and 0 respectively.

But, neither of the options contains this answer.

Hence, the correct answer is option e.

19. The integer 'a' is directly proportional to the integer 'b' and $a/b = 7$. Find out the value of integer variable 'b', for the value of the integer variable a = 1.5.

- a. 1.5
- b. 0.7
- c. 7.0
- d. 10.5

e. 0.21 **Correct answer: e**

Explanation:

If two quantities are directly proportional to each other, indicates that they always have the same quotient.

Now, according to this property and according to the data given in the question, as 'a' is directly proportional to the integer 'b' and $a/b = 7$ (----i); then they both will always have the same quotient irrespective of the values of both 'a' and 'b'.

Hence, substituting the value of 'b' in (i), we get,

$$1.5/b = 7 \therefore$$

$$b = 1.5/7 \therefore$$

$$b = 0.21$$

Hence, the correct answer is option e.

20. Find out the area of the figure with all its sides equal in length if it is given that the perimeter of this regular polygon is 100.

- a. 25
- b. 100
- c. 125
- d. 625
- e. 1025 **Correct answer: d**

Explanation:

According to the data given in the question, the figure is having all its sides equal in length. From this we can conclude that the given geometrical figure is **a square**.

Now, it is given that the perimeter of the square is 100 units.

And, perimeter of a square = sum of all its sides

Since, all its sides are equal in length, we can say that perimeter of the square = $4(\text{side}) = 100$

$$\therefore \text{Side} = 100/4 = 25$$

Now, we have to find out the area of the square.

Area of a square = side * side

∴ Area of the square with side 25 units = 25 * 25 = 625 square units

Hence, the correct answer is option d.

Select the correct answer from the given five options by solving the following questions.

21. **Solve the following and find out the answer for $((x^6)^3 * (x^5)^6) / (x^3)$.**

- a. X^5
- b. X^6
- c. X^{40}
- d. X^{45}
- e. None of the above

Correct answer: d

Explanation:

According to the basic rules of exponents, we **multiply** the exponents when powers are raised to powers.....i

When we multiply the exponents having the same base, then in that case we add the exponents and not multiply.....ii

When we divide the powers having the same base, then in that case we subtract the exponents and not multiply.....iii

In this problem, we have to make use of all these three properties in order to get the correct answer to the question.

First comes the multiplication of the exponents with the same base: $((x^6)^3 * (x^5)^6)$

∴ $((x^6)^3 * (x^5)^6) = x^{6*3} * x^{5*6} = x^{18} * x^{30} = x^{18+30} = x^{48}$ Now

we will solve the division part i.e. $x^{48}/x^3 = x^{48-3} = x^{45}$.

Hence, the correct answer is option d.

22. **If the volume of a sphere is 75 cubic centimeters, then find out the area of this sphere in terms of centimeter square units.**

- a. 1079.3322
- b. 1080
- c. 1090.7933
- d. 2233.1023
- e. None of the above

Correct answer: a

Explanation:

Formula for the volume of a sphere is $V = \frac{4}{3}(\pi*r*r*r)$; where 'r' is the radius of the circle.

According to the data given in the question, volume of the sphere $V = 75$ cubic centimeter. $\therefore \frac{4}{3}(\pi*r*r*r) = 75$ $\therefore r*r*r = 17.8977$ $\therefore r = 2.6157$ cm

Now, formula for the area of regular sphere $A = 4*\pi*r*r$; where 'r' is the radius of the sphere.

$$\therefore A = 4*3.14*(2.6157)*(2.6157)$$

$$\therefore A = 1079.3322 \text{ square centimeter}$$

Hence, the correct answer is option a.

23. A man 2 meters tall casts a shadow of 1.5 meters in length. At the same time, some building next to the man casts a shadow which is 6 meters in length. Calculate the height of this building in centimeters.

- a. 1.5 m
- b. 200 cm
- c. 600 cm
- d. 350 cm
- e. 800 cm **Correct answer:** e

Explanation:

Let (h) denote the height and (sh) denote the shadow.

Let (ht) be the height of the building that we have to calculate.

Now, height of man (h1) : shadow of man (sh1) :: height of building(ht) : shadow of building(sh2)

$$\therefore 2 : 1.5 :: ht : 6$$

This ratio can also be represented as, $2/1.5 = ht/6$

$$\therefore ht = (2 * 6)/1.5 \therefore ht = 12/1.5 = 8 \text{ meters}$$

But, we have to find out the height of the building in terms of cm.

Now, $1\text{m} = 100 \text{ cm}$

$$\therefore 8\text{m} = 8*100 = 800\text{cm}$$

Hence, the height of the building whose shadow is 6 meters in length is 800 cm.

Hence, the correct answer is option e.

24. 5 men and 3 women can do a piece of work in 10 consecutive working days. The same piece of work is done by 7 men and 2 women in a time period of 8 working days. Find the number of days required to complete the same amount of work if there are 9 men and women working on it.

- a. 10.2 days
- b. 8.9 days
- c. 9.8 days
- d. 11.0 days
- e. 4.07 days **Correct answer: e**

Explanation:

According to the data given in the question,

5 men + 3 Women can do the piece of work in 10 days.

Thus, we can say that, 50 men + 30 women can do the piece of work in 1 day.....i

Also, it is given that,

7 men + 2 Women can do the piece of work in 8 days.

Thus, we can say that, 70 men + 20 women can do the same piece of work in 1 day.....ii

As equation I and ii show the work done in 1 day we can equate the number of men and women working to complete the task.

$$\text{i.e. } 5 \text{ men} + 3 \text{ Women} = 7 \text{ men} + 2 \text{ Women}$$

$$\therefore 1 \text{ women} = 2 \text{ men or } 2 \text{ men} = 1 \text{ women}$$

$\therefore 3 \text{ women} = 3 * 2 = 6 \text{ men}$

\therefore We can say that, 11 men can do a piece of work in 10 days.

But, we have to find out the number of days required to complete the same amount of work if there are 9 men and women working on it.

Now, 9 women = $9 * 2 = 18$ men.

$\therefore 9 \text{ men} + 18 \text{ men} = 27 \text{ men}$, can do the work in, $(11*10)/ 27 = 110/27 = 4.07$ days.

Hence, the correct answer is option e.

25. Find the greatest fraction from the following set of fractions (8/9, 9/8, 7/5)

a. 8/9

b. 9/8

c. 7/5

d. 1.5

e. None of the above **Correct answer:** c

Explanation:

We will have to find the quotients of all the fractions first and then compare them to find the correct answer to the question.

Now, $8/9 = 0.8889$

$9/8 = 1.125$

And, $7/5 = 1.4$

\therefore The greatest of all is the fraction 7/5 Hence,

the correct answer is option c.

Select the correct answer from the given five options by solving the following questions.

26. **Out of the two candidates who were standing against each other for the post of an MLA, one of them got 40 % of the total number of vote and the other who won the election got the remaining 60% of all the votes. The defeated candidate got 460 votes less than the number of votes secured by the winner of the election. Find out the total number of votes and the total number of votes gained by the winner of the election.**

a. 966, 2300

- b. 2300, 966
- c. 1380, 2300
- d. 2300, 1380
- e. None of the above

Correct answer: d

Explanation:

Suppose the total number of votes = 100

Then, 40% of total number of 100 votes = 40 = number of votes secured by [the loser](#).

And, 60% of total number of 100 votes = 60 = number of votes secured by the winner.

∴ Difference in the votes secured by the two candidates = 60 – 40 = 20.

Hence, we can say that, for total number of votes equal to 100, the difference in the votes earned by the two is equal to 20.

∴ According to the data given in the question, the actual difference of votes between the candidates is = 460

∴ Total number of votes earned by the two candidates = $460 \times 100 / 20 = 2300$

But, we also to find out the number of votes secured by the winner.

It is given that the winner secured 60% of the total number of votes.

∴ 60% of 2300 = $60 \times 2300 / 100 = 1380$

Hence, the correct answer is option d.

27. If $a - b = 3$ and $a^2 - b^2 = 25$, then find the sum of both the variables 'a' and 'b'.

- a. 8.6
- b. 3.5
- c. 2.4
- d. 8.33
- e. 3.88 **Correct answer:** d

Explanation:

We know the standard algebraic formula for $(a)^2 - (b)^2$

$$(a)^2 - (b)^2 = (a + b)(a - b)$$

Now, according to the data given in the question, $a - b = 3$ and $a^2 - b^2 = 25$.

Substituting these values in above equation, we get,

$$25 = (a + b)(3) \therefore$$

$$(a + b) = 25/3 \therefore a$$

$$+ b = 8.3333$$

Hence, the correct answer is option d.

28. **If $x + y = 6$ and $x^2 + y^2 = 30$, then find the product of both the variables 'x' and 'y'.**

- a. 6
- b. 36
- c. 2
- d. 5
- e. 3

Correct answer: e

Explanation:

We know the standard algebraic formula for $(x+y)^2$

$$(x+y)^2 = x^2 + 2xy + y^2$$

Now, according to the data given in the question, $x + y = 6$ and $x^2 + y^2 = 30$

Substituting these values in above equation, we get,

$$(6)^2 = 30 + 2xy$$

$$\therefore 36 - 30 = 2xy$$

$$\therefore 6 = 2xy \therefore xy$$

$$= 3$$

Hence, the correct answer is option e.

29. **If $f(x) = 4(x + 2)$, then what will be the value of $f(3)$?**

- a. 20
- b. 30
- c. 40
- d. 10
- e. None of the above **Correct answer: a**

Explanation:

According to the data given in the question, $f(x) = 4(x + 2)$

We have to find out the value of $f(3)$.

∴ Substituting, $x = 3$ in the equation for $f(x)$, we get,

$$f(3) = 4(3 + 2) \therefore f(3) = 4(5) = 20$$

Hence, $f(3) = 20$

Hence, the correct answer is option a.

30. **Find the value of $g(2,3)$ if $g(x,y) = \frac{x^2 + y^2}{x+y}$**

- a. $\frac{12}{5}$
- b. $\frac{11}{12}$
- c. $\frac{13}{12}$
- d. $\frac{5}{12}$
- e. $\frac{13}{5}$

Correct answer: e

Explanation:

According to the data given in the question $g(x,y) = \frac{x^2 + y^2}{x+y}$

We have to find the value of the function $g(2,3)$.

Substituting $x=2$ and $y=3$ in the given definition of the function 'g', we get,

$$g(2,3) = \frac{(2)^2 + (3)^2}{(2 + 3)} \therefore g(2,3) = \frac{(4) + (9)}{(5)} = \frac{13}{5}$$

Hence, the correct answer is option e.

Choose the correct answer from the given five options by solving the following quantitative questions.

31. **What will be the result of [10] – [3], if it is given that [x] = -x².** a. -91
b. 100
c. 10
d. 7
e. None of the above

Correct answer: a

Explanation:

According to the data given in question, $[x] = -x^2$.

Substituting the value of x as x=10 in this equation, we get, $[10] = -100$

Now, substituting the value of x as x=3 in this equation, we get, $[3] = -9$

Now, substituting these values in $[10] - [3] = (-100) - (-9) = -100 + 9 = -91$

Hence, the correct answer is option a.

32. **The annual income of Ralph is 25 percent less than the annual income of Mike. Calculate the increase in the annual income of Mike in terms of percentage as compared to Ralph.**
- a. 10
b. 20
c. 30
d. 40
e. None of the above **Correct answer:** e

Explanation:

Let \$100 be the annual income of Mike.

Now, according to the data given in the question, annual income of Ralph is less than the annual income of Mike by 25 percent.

$\therefore 25\% \text{ of } 100 = 25$

Hence, we can say that the annual income of Ralph is \$75, when annual income of Mike is \$100.

But, we have to find the percentage increase in the annual income of Mike as compared to annual income of Ralph.

∴ Percentage increase in annual income of Mike = $100 - 75 = 25\%$.

But, neither of the given options represents this value.

Hence, the correct answer is option e.

33. There are in all 31 balls in a basket, which are red and green in color. The number of red balls is 15 and the number of green balls is 16. Raven is said to pick a ball that is only red in color. Find out the probability that Raven picks out only a red color ball from this bag.

- a. $16/31$
- b. $15/31$
- c. $31/15$
- d. $31/16$
- e. None of the above

Correct answer: b

Explanation:

According to the data given in the question, the bag contains 31 balls in all.

Total number of red balls in the bag = 15

Total number of green balls in the bag = 16

∴ The probability that Raven picks out only a red colored ball = $15/31$ Hence,

the correct answer is option b.

34. There was a trial going on in a laboratory. Students were doing an experiment. This experiment showed that the probability of a bird flies away when the cage is opened is $7/10$. It was also observed that the bird that flew away also comes back is $1/5$. You have to calculate the probability that when the cage is opened a bird not only flies away but also comes back. a.

- $7/10$
- b. $3/10$
- c. $1/5$
- d. $7/50$

e. None of the above

Correct answer: d

Explanation:

According to the data given in the question,

The probability that a bird flies away when the cage is opened = $7/10$.

The probability that a bird that flew away also comes back = $1/5$.

We know that, the probability that two events will take place simultaneously is denoted by the product of the individual occurrences of each of the different events.

∴ The probability that the two events will take place at one and the same time = $7/10 * 1/5 = 7/50$

Hence, the correct answer is option d.

35. There are in all 10 children which are to be divided into a team of exactly 5 members in it. Find the possible number of outcomes such that there are 5 different children in the team of 5.

- a. 120
- b. 234
- c. 252

- d. 1512
- e. 30240 **Correct answer:** c

Explanation:

Total number of children = 10

Total number of children in a team = 5

∴ The total number of all possible outcomes = $10*9*8*7*6 = 30240$

Now, to find out the total of number of outcomes such that the team consists of exactly 5 different children can be obtained by dividing the total number of outcomes i.e. 30240 by 5!

This, is so because, the team must contain exactly 5 children in it.

∴ Possible combinations = $(10*9*8*7*6)/(5*4*3*2*1)$

∴ Possible combinations = $(30240)/(120)$

∴ Possible combinations = 252

Hence, the correct answer is option c.

Solve the following quantitative questions and then choose the correct answer from the given five options.

36. **At the St. Mary's high school, all the 200 students of the class 9 are divided into two houses, namely red house and the blue house. There are 50 students in red house as well as there are 35 students in the blue house. 150 students are still not assigned into any of the two houses because some of the students are assigned both the houses by mistake. Find out the total number of students who are assigned both red as well as blue house by mistake.**
- a. 200
 - b. 50
 - c. 35
 - d. 115
 - e. None of the above

Correct answer: c

Explanation:

According to the data given in the question,

Total number of students in class 9 of St. Mary's high school = 200

Total Number of students in red house = 50

Total number of students in blue house = 35

Total Number of students who are not assigned any of the two houses yet = 150

We have to find out the total number of students who are assigned to both the houses.

Let these number = x

There is a standard formula to solve such problems. This formula is stated as follows:

Total students = students in red house + students in blue house + students in neither of the houses – students belonging to both the houses

Substituting the respective values in the above formula we get,

$$200 = 50 + 35 + 150 - x$$

$$\therefore x = -200 + 235 \therefore x =$$

35

Hence, there are 35 students who are assigned both the red and the blue house.

Hence, the correct answer is option c.

37. **There are 10 members in a committee. Out of these 10 members, 6 are women and the remaining members are men. But, now the society has fixed the number of female members to 3 and the number of male members to only 1. In how many ways can this combination be formed which results in a committee of exactly 4 members out of which 3 are female and 1 is men from a total of 10 members.**
- a. 20
 - b. 40
 - c. 60
 - d. 80
 - e. None of the above

Correct answer: d

Explanation:

According to the data given in the question,

Condition 1:

Total number of members originally = 10 Total number of female members = 6 Total number of male members = 4

Condition 2:

Total number of members newly = 4 Total number of female members = 3 Total number of male members = 1

Now, total possible outcomes for 6 females in 3 places = $6 \times 5 \times 4 \times 3 \times 2 \times 1 = 120/6$

∴ Total possible outcomes for 6 females in 3 places = 20

Similarly, possible outcomes for 4 males in 1 place = $4/1 = 4$.

∴ The total number of combinations is equivalent to the product of the above two results = $20 \times 4 = 80$

Hence, the correct answer is option d.

38. Calculate the total number of ways to arrange 7 chairs in a row.

- a. 120
- b. 216
- c. 420
- d. 5040
- e. None of the above

Correct answer: d

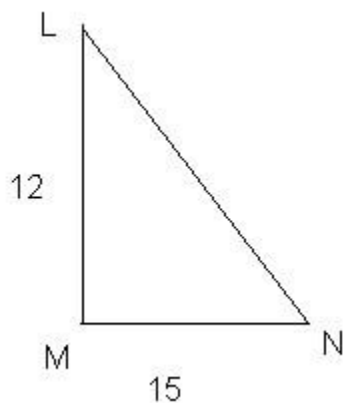
Explanation:

As per the data given in the question we have to arrange, 7 chairs in 7 places in a row.

∴ The total number of possible combinations = $7! = 7 \times 6 \times 5 \times 4 \times 3 \times 2 \times 1 = 5040$

Hence, the correct answer is option d.

39. The given triangle is a right angled triangle. You have to find out the length of the third side which is unknown i.e. side LN.



- a. 12

- b. 15
- c. 37
- d. 14
- e. None of the above **Correct answer: e**

Explanation:

Since, the given triangle is a right angled triangle we have the standard formula to find the length of the hypotenuse. This formula is stated as follows,

$$(\text{Hypotenuse})^2 = (\text{one side})^2 + (\text{other side})^2$$

$$\text{i.e. } (LN)^2 = (LM)^2 + (MN)^2$$

$$\therefore (LN)^2 = (144) + (225)$$

$$\therefore (LN)^2 = 369$$

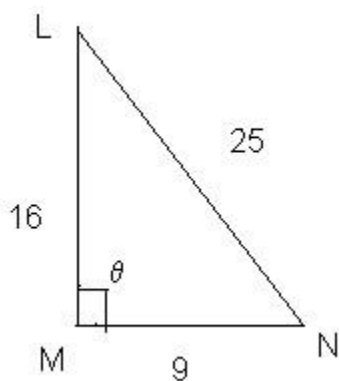
Now, taking square roots on both sides of the equation, we get,

$$LN = 19.2093$$

But, none of the options represents this value.

Hence, the correct answer is option e.

40. **Find the value of $\tan\theta$ with the help of the details given in the adjoin figure.**



- a. 16/9
- b. 25/9
- c. 9/16
- d. 9/25
- e. 16/25 **Correct answer: c** Explanation:

We know that $\tan\theta = \text{opposite side}/\text{adjacent side}$

Side LM is the adjacent side and side MN is the opposite side \therefore

$$\tan\theta = 9/16$$

Hence, the correct answer is option c.

Solve the following quantitative questions and then choose the correct answer from the following five options.

41. If the average cost of 5 commodities is 20 units and the average cost of 3 of those commodities is 15 units, then find the average cost of the remaining two commodities.

- a. 20.5
- b. 21.5
- c. 22.5
- d. 26.5
- e. 27.5

Correct answer: e

Explanation:

According to the data given in the question,

The average cost of 5 commodities = 20 units.....i

The average cost of 3 of those commodities = 15 units.....ii

We have to find the average cost of the remaining 2 of those commodities.

Let the commodities be a, b, c, d, e

Hence, from i we can say that, $a+b+c+d+e/5 = 20 \therefore$

$$a+b+c+d+e = 20*5 = 100 \text{iii}$$

Also, from ii we can say that, $a+b+c/3 = 15 \therefore$

$$a+b+c = 15*3 = 45 \text{iv}$$

Now, substituting equation iv in equation iii, we get,

$$45+d+e = 100 \therefore$$

$$d+e = 100 - 45 \therefore$$

$$d+e = 55$$

But, we have to find their average. Hence, dividing both sides by 2 we get,

$$d+e/2 = 55/2 = 27.5$$

Hence, the correct answer is option e.

42. **If the cost of one dozen of apples is \$96 and the cost of 1 dozen of bananas is \$36, then find the average cost of 18 apples and 18 bananas.** a. \$3
b. \$8
c. \$12
d. \$5.5
e. None of the above

Correct answer: d

Explanation:

According to the data given in the question,

The cost of one dozen of apples = \$96.....i

The cost of 1 dozen of bananas = \$36....ii

We know that, one dozen = 12 units

\therefore From statement (i) we can say that, 12 apples = \$96

\therefore Cost of 1 apple = $96/12 = \$8$...iii

\therefore Cost of 18 apples = $18*8 = \$144$iv

Similarly, from statement (ii) we can say that, 12 bananas = \$36

\therefore Cost of 1 banana = $36/12 = \$3$v

\therefore Cost of 18 bananas = $18*3 = \$54$vi

Hence, the total cost of 18 apples and 18 bananas = $\$144 + \$54 = \$198$

But, we have to find the average cost of 18 apples and 18 bananas = $198/36 = 5.5$

Hence, the correct answer is option d.

43. **If the digit in the units place follows a pattern of 8, 4, 2, 6 then the numbers are the in the ascending order of the squares of which of the following number?**

- a. 2
- b. 4
- c. 6
- d. 8

- e. None of the above

Correct answer: d

Explanation:

For solving this question, first we will have to find out the squares of each of the options at least upto a power of 5.

Squares of 2 in ascending order = 2, 4, 8, 16, 32

Squares of 4 in ascending order = 4, 16, 64, 256, 1024

Squares of 6 in ascending order = 6, 36, 216, 1296, 7776

Squares of 8 in ascending order = 8, 64, 512, 4096, 32768

From the above results, we can see that the digit in the units place of the squares of number 8 in the increasing order of their powers follows the given pattern i.e. 8 4 2 6.

Hence, the correct answer is option d.

44. **If the distance between two points say A and B is 10 and the distance between the next two points say B and C is (-9.5), then find the distance between the points A and C, where A as well as C are the two distinct endpoints.**

- a. 1.5
- b. 0.5
- c. 1
- d. 2

e. None of the above **Correct answer:** b

Explanation:

According to the data given in the question,

The distance between the points A and B = 10 units

The distance between the points B and C = -9.5 units

We have to find the distance between A and C which are the two distinct endpoints of the line i.e., from this we can say that,

$$AB + BC = AC$$

$$\therefore 10 + (-9.5) = AC$$

$$\therefore AC = 0.5 \text{ units}$$

Hence, the correct answer is option b.

45. Following numbers are in a particular arithmetic sequence. Find out the missing term in the series and fill in the blank.

49, 343, -----, 16807, 117649

- a. 7
- b. 11
- c. 2401
- d. 4096
- e. None of the above **Correct answer:** c

Explanation:

The series of numbers given in the question is 49, 343, -----, 16807, 117649

If we look at this series carefully, we can arrive at the conclusion that these numbers are increasing order of powers of 7.

We have to find out the term 7 raise to the power 4 which is equal to 2401.

Hence, the correct answer is option c.

Solve the following quantitative questions and then choose the correct answer from the following five options.

46. If $x^* = (3x + 2)/6$, and $x = 6x + 1$, then what will be the value of x^* ? a. $3x + 5/6$
b. $2x + 6/5$
c. $6/5 + 2x$
d. $5/6 + 2x$
e. None of the above

Correct answer: a

Explanation:

According to the data given in the

question, $x^* = (3x + 2)/6$(i) and $x =$

$6x + 1$(ii)

Substituting the value of x from equation ii in equation i, we get,

$$x^* = (3(6x + 1) + 2)/6 \therefore x^* = (18x + 3 + 2)/6 \therefore x^* = (18x +$$

$$5)/6 \therefore x^* = 3x + 5/6$$

Hence, the correct answer is option a.

47. **What will be the digit in the unit's place of a single digit which belongs to the set of natural numbers, when this number is raised to the power 5?**
- a. The number itself
 - b. Number + 1
 - c. Number - 1
 - d. Number / 1
 - e. None of the above
- Correct answer:** a

Explanation:

In order to answer this question, let us find out the values of the different natural numbers in the ascending order of their powers upto the power 5.

For [the natural](#) number 2:

2, 4, 8, 16, 32

For the natural number 3:

3, 9, 27, 81, 243

For the natural number 4:

4, 16, 64, 256, 1024

For the natural number 5:

5, 25, 125, 625, 3125

From the above results we can come to a conclusion that the digit in the unit's place when any single digit natural number is raised to the power 5 is equal to the digit itself.

Hence, the correct answer is option a.

48. **If $f(x) = x + 9 / 3$, then find the value of $f(2)$.**

- a. 3
- b. 6
- c. 9
- d. 12
- e. None of the above

Correct answer: e

Explanation:

According to the data given in the question,

$$f(x) = (x + 9)/3 \dots\dots (i)$$

We have to find the value of $f(2)$.

Thus, substituting, $x=2$ in equation (i), we get,

$$f(2) = (2 + 9)/3 \therefore f(2) = 11/3 = 3.6667$$

But, none of the given options represent this value.

Hence, the correct answer is option e.

49. **Find the dividend if it is given that the dividend when divided by 6 gives the remainder as half of the divisor and the quotient is 2 more than the perfect square of the divisor.**

- a. 123

- b. 321
- c. 345
- d. 123
- e. 231 **Correct answer: e**

Explanation:

According to the data given in the question,

Divisor = 6..... (i)

Quotient = 2 + perfect square of the divisor

Thus, quotient = 2 + 36 = 38.....(ii)

Remainder = half of the divisor

Thus, remainder = 6/2 = 3.....(iii)

According to the standard mathematical formula for division:

Dividend = divisor * quotient + remainder

Substituting the values from equation (i), (ii) as well as (iii) in this formula, we get,

Dividend = 6 * 38 + 3

∴ Dividend = 228 + 3

∴ Dividend = 231

Hence, the correct answer is option e.

50. Find the difference between 'm and 'n', if it is given that, $(m)^2 - (n)^2 = 81$ and the sum of these two variables is equal to 50.

- a. 1.5
- b. 2.5
- c. 1.62
- d. 1.75
- e. None of the above

Correct answer: c

Explanation:

According to the data given in the question,

$$(m)^2 - (n)^2 = 81 \dots (i)$$

$$\text{Sum of these two variables} = \text{sum of 'm' and 'n'} = 50 \dots (ii)$$

We have to find the difference between 'm' and 'n' i.e. (m-n)

According to the standard mathematical formula,

$$(m)^2 - (n)^2 = (m + n) (m - n)$$

On substituting the values from equations (i) and (ii) in this formula we get,

$$81 = 50 (m - n)$$

$$\therefore (m - n) = 81/50 = 1.62$$

Hence, the correct answer is option c.

Choose the correct answer form the given five options by solving the quantitative questions.

51. What will be the value of $(a^m)^n$ for the value of $a = 3$, $m = 2$ and $n = 4$ respectively.

- a. 9
- b. 16
- c. 81
- d. 6561
- e. None of the above

Correct answer: d

Explanation:

According to the data in the question, the value of $a = 3$, $m = 2$ and $n = 4$ respectively.

We have to [find the value](#) of $(a^m)^n$

Substituting the given values in $(a^m)^n$ we get,

$$(a^m)^n = (3^2)^4$$

$$\therefore (a^m)^n = 3^{2 \times 4} = 3^8$$

$$\therefore (a^m)^n = 6561$$

Hence, the correct answer is option d.

52. **Find out which of the following number is not a perfect square.**

- a. 2187
- b. 78125
- c. 16284
- d. 3125
- e. None of the above **Correct answer: a**

Explanation:

According to the standard properties of square numbers, all perfect square numbers must end in either 0, 1, 4, 5, 6 or 9.

Now, looking at the given options, we find that options b, c and d have 4 and 5 as the digit in the unit's place. Hence, these numbers belong to the set of perfect squares.

Thus, we are left only with the option a. this number has 7 as the digit in the unit's place. Hence, it 2187 is not a perfect square.

Hence, the correct answer is option a.

53. **Which of the following statements are true with respect to the properties of squares of any number?**

- i. The square of even numbers is always even
- ii. The square of odd number is always odd
- iii. When you divide a perfect square by 3, the remainder is either 0 or 1
- iv. The total number of zeroes at the end of a perfect square is not odd at all
- e. i and ii only
- f. ii and iii only
- g. i, ii and iii
- h. ii, iii and iv
- i. all the statements are true

Correct answer: e

Explanation:

All the statements represent some or the other property that is possessed by the square numbers.

Hence, the correct answer is option e.

54. What will be the square of $x + 1/x$, if it is given that $x^2 + 1/x^2 = 34$?

- . ± 7
- a. -7
- b. ± 6
- c. -6
- d. None of the above

Correct answer: c

Explanation:

According to the data given in the question, $x^2 + 1/x^2 = 34$

We have to find the value of $x + 1/x$

We have the standard algebraic formula for the square of **addition** of two numbers as follows:

$$(a + b)^2 = a^2 + 2ab + b^2$$

$$\therefore (a + b)^2 - 2ab = a^2 + b^2$$

Now substituting $a = x$ and $b = 1/x$ in the above formula, we get,

$$(x + 1/x)^2 = 34 + 2*x*1/x$$

$$\therefore (x + 1/x)^2 = 34 + 2 = 36$$

Now taking square root on both the sides we get,

$$x + 1/x = \pm 6$$

Hence, the correct answer is option c.

55. If $(m + n) = 24$, and the product of m and n is equal to 15 , then find the value of the sum of the squares of the two variables ' m ' and ' n '. Also find the value of $(m-n)^2$.

- . $500, 550$
- a. $516, 546$
- (b) $546, 516$
- (c) $600, 500$
- (d) None of the above

Correct answer: c

Explanation:

According to the data given in the question,

$$(m + n) = 24 \dots (i)$$

$$m * n = 15 \dots (ii)$$

We have to find the sum of the squares of the two variables 'm' and 'n' i.e. $m^2 + n^2$

According to the standard mathematical formula,

$$(m + n)^2 = m^2 + 2mn + n^2 \dots (iii)$$

$$\therefore (m + n)^2 - 2mn = m^2 + n^2 \dots (iv)$$

Substituting the value of $m + n$ from equation (i) and (ii), in equation (iv), we get

$$(24)^2 - 2(15) = m^2 + n^2$$

$$\therefore 576 - 30 = m^2 + n^2 \therefore$$

$$m^2 + n^2 = 546$$

We also have to find the value of $(m - n)^2$

Now, according to the standard mathematical formula,

$$(m - n)^2 = m^2 - 2mn + n^2$$

$$\therefore (m - n)^2 = 546 - 2(15)$$

$$\therefore (m - n)^2 = 546 - 30 = 516$$

Hence, the correct answer is option c.

Choose the correct answer from the given five options by solving the quantitative questions.

56. Which of the following statements hold true for writing as well as reading of the roman numbers?

- i. You should always work from right to left in order to find the correct value of a roman number
- ii. While moving from right to left, we add the values of the symbols when a lower value symbol is followed by a higher value symbol

- iii. While moving from right to left, we subtract the lower value from the higher value, when a higher value symbol is followed by a lower value symbol
- iv. There is no symbol to symbolize zero using the roman numbers
- e. i and ii are true
- f. ii and iii are true
- g. I, ii and iii are true
- h. None of the statements is true
- i. All the statements are true

Correct answer: e

57. How will you represent the number 1600 with the help of roman numbers?

- . XXXX a. MDC
- b. CMD
- c. DMC
- d. None of the above

Correct answer: b

Explanation:

According to the roman number representation scheme,

Letter I represents a value of 1

Letter X represents a value of 10

Letter V represents a value of 5

Letter L represents a value of 50

Letter C represents a value of 100

Letter D represents a value of 500

Letter M represents a value of 1000

We have to find the roman symbol for number 1600.

$$1600 = 1000 + 500 + 100 = M C D$$

Hence, the correct answer is option b.

58. **What value does the roman number MCDL represent?**

- a. 1600
 - b. 1560
 - c. 1500
 - d. None of the above
- Correct answer: e**

Explanation:

According to the roman number representation scheme,

Letter I represents a value of 1

Letter V represents a value of 5

Letter X represents a value of 10

Letter L represents a value of 50

Letter C represents a value of 100.

Letter D represents a value of 500

Letter M represents a value of 1000

We have to [find the value](#) represented by the roman symbol MCDL.

From the above data we can substitute the values for the respective symbols as follows,

$$M = 1000, C = 100, D = 500, L = 50$$

$$\therefore \text{MCDL} = 1000 + 100 + 500 + 50$$

But, since, the value of C is less than the value of D, hence, we will subtract the value of C from the value of D.

$$\therefore \text{MCDL} = 1000 + (500 - 100) + 50 = 1450$$

Since, none of the options represent this value the correct answer is option e.

Hence, the correct answer is option e.

59. **In order to represent higher numbers with the help of roman symbols, a bar is placed on the top of the roman numbers and then the resultant number is multiplied by which of the following number to find out the exact value?**

. 10

- a. 100
- b. 1000
- c. 1
- d. None of the above **Correct answer:** c

Explanation:

According to one of the properties of roman numbers, bar over the top of a roman number indicates multiplication by 1000.

Hence, the correct answer is option c.

60. **What do the lines on both the sides of a roman number and a bar on the top indicate?**

. Multiplication by 100000 a.

Multiplication by 100

- b. **Addition** of 1000
- c. Multiplication by 1000
- d. None of the above **Correct answer:** a

Explanation:

Additional horizontal lines on each side of a roman number along with a bar on top of that number imply hundreds of thousands. This means 100×100 , which is equal to 100000.

Hence, the correct answer is option a.

Solve the following quantitative questions and then choose the correct answer from the following five options.

61. **If it is given that, $5 : 6 :: 100 : x$, then in that case find the value represented by the variable 'x'.**

- a. 100
- b. 5
- c. 6
- d. 120
- e. None of the above

Correct answer: d

Explanation:

According to the data given in the question,

$$5:6 :: 100:x \dots\dots(i)$$

We have to find the value of 'x'

Now, equation (i) can also be written as follows,

$$5/6 = 100/x \therefore x =$$

$$100*6 / 5 \therefore x =$$

$$600/5 = 120$$

Hence, the correct answer is option d.

62. Find the value of (a) which is the mean proportion of the variables 'm' as well as 'n' if m=5 and n=25.

- a. 5
- b. 25
- c. 125
- d. $5\sqrt{5}$
- e. None of the above

Correct answer: d

Explanation:

According to the data given in the question, (a) is the mean proportion of the variables 'm' as well as 'n'. This means that $(a^2) = m*n \dots i$

We know that, $m=5$ and $n=25$.

Putting these values in equation i, we get,

$$(a^2) = 5*25 = 125$$

Now, taking square root on both sides we get, $a = 5\sqrt{5}$

Hence, the correct answer is option d.

63. Find the value of (z) which is the third proportion of the variables 'm' as well as 'n', where value of m=10 and value of n=2.

- a. 0.1
- b. 0.2
- c. 0.4
- d. 0.5
- e. None of the above **Correct answer: c**

Explanation:

According to the data given in the question, (z) is the third proportion of the variables 'm' as well as 'n'.

This states that, $m:n :: n:z$ This

means that $(n^2) = m*z$ i

We know that, $m=10$ and $n=2$.

Putting these values in equation i, we get,

$$(2^2) = 10*z$$

$$\therefore 4 = 10*z$$

$$\therefore z = 4/10 = 0.4 \text{ii}$$

Hence, the correct answer is option c.

64. Find the duplicate ratio and the sub duplicate ratio of x and y where $x=7$ and $y=9$.

- a. 7:9 and $\sqrt{7}: \sqrt{9}$
- b. 49:81 and 7:9
- c. $\sqrt{7}: \sqrt{9}$ and 7:9
- d. 9:7 and $\sqrt{9}: \sqrt{7}$
- e. None of the above **Correct answer: a**

Explanation:

Duplicate ratio means the ratio of the squares of the original numbers in terms of ration and proportion i.e. $x^2:y^2$

Whereas, sub-duplicate ratio means the ratio of the square roots of the original numbers in terms of ration and proportion i.e. $\sqrt{x}:\sqrt{y}$

Now, according to the data given in the question, value of $x=7$ and value of $y=9$.

$$\therefore x^2:y^2 = 7^2:9^2 = 49:81 = \text{duplicate ratio}$$

And $\sqrt{x}:\sqrt{y} = \sqrt{7}:\sqrt{9} = \text{sub-duplicate ratio}$

Hence, the correct answer is option a.

65. **A bag contains red, blue and white balls. The red and the blue balls are in the ration 4:5, whereas, the blue and the white balls are in the ratio 6:4. Find the ratio between the red, blue and the white balls respectively.** a.

4:5:6

b. 5:4:6

c. 6:5:4

d. 12:15:10

e. None of the above Correct answer: d

Explanation:

According to the data given in the question,

The ratio between the red and the blue balls = 4:5i

The ratio between the blue and the white balls = 6:4ii

We have to find the ratio between the red, blue and the white balls respectively.

We can see that the blue color is the common color in both the ratios.

Hence, to find out the scaling ratio, we will first find the LCM of 5 and 6.

LCM of 5 and 6 is 30.

Now multiplying the number of red balls i.e. 4 with $30/5$, we get the result as 24.

And after multiplying the number of white balls i.e. 4 with $30/6$, we get the result as 20.

Therefore, with the help of scaling ratios, we obtain the ratio between the red, blue and the white balls as $24:30:20 = 12:15:10$.

Select the correct answer from the given five options by solving the following questions.

66. **How will you represent the number 786 with the help of roman numbers?** a.

XXXX

- b. MDC
- c. CMD
- d. DMC
- e. None of the above

Correct answer: e

Explanation:

According to the roman number representation scheme,

Letter I represents a value of 1.

Letter X represents a value of 10.

Letter V represents a value of 5.

Letter L represents a value of 50.

Letter C represents a value of 100.

Letter D represents a value of 500.

Letter M represents a value of 1000.

We have to find the roman symbol for number 786.

$$786 = 700 + 80 + 6 = DCCLVI$$

But, none of the given options represent this value.

Hence, the correct answer is option e.

67. It is given that 2:3 is the value of the sub triplicate ratio of the variables 'p' and 'q' respectively. Find out the value of the variables 'p' as well as 'q' and also find out the triplicate ratio of these two variables.

- a. $p:q = 2:3$ and $p^3:q^3 = 8:27$
- b. $p:q = 2:3$ and $p^3:q^3 = 4:9$
- c. $p:q = 8:27$ and $p^3:q^3 = 512:19683$
- d. $p:q = 3:2$ and $p^3:q^3 = 4:8$
- e. $p:q = 512:19683$ and $p^3:q^3 = 8:27$ **Correct answer:** c

Explanation:

According to the data given in the question, value of the sub triplicate ratio of the variables 'p' and 'q' respectively = 8:27(i)

We have to find the values of 'p' as well as 'q' i.e. p:q

We also to have to **find the value** of the triplicate ratio of p:q i.e. $p^3:q^3$

Sub triplicate ratio = $p^{1/3}:q^{1/3} = (2):(3)$ (ii)

∴ To find p:q, we will have to take cubes on both the sides.

∴ $p:q = 8:27$ (ii)

Now, to find the triplicate ratio we will have to again take cubes on both sides of the equation (ii).

∴ $p^3:q^3 = 8^3:27^3 = 512:19683$ (iii)

Hence, the correct answer is option c.

68. The radius of two concentric circles is in the ratio 2:5, then find out the ratio between their areas.

- a. 2:5
- b. 5:2
- c. 4:25
- d. 25:4
- e. None of the above **Correct answer: c**

Explanation:

According to the data given in the question, the radius of two concentric circles is in the ratio 2:5.

The standard formula to calculate the area of a circle (A) = πr^2 , where r is the radius of the circle.

Since, π is a constant, we can say that A is directly proportional to the square of the radius.

∴ $A_1 : A_2 = r_1^2 : r_2^2 = (2)^2 : (5)^2 = 4 : 25$

Hence, the correct answer is option c.

69. **How much are 16.66% of 420?**

- a. 50
- b. 60
- c. 70
- d. 80
- e. None of the above **Correct answer: c**

Explanation:

We have to find 16.66% of 420.

We know that 16.66% is equivalent to $\frac{1}{6}$.

∴ Multiplying on 420 by $\frac{1}{6}$, we will get the correct answer.

$$\therefore 420 * \frac{1}{6} = 420 / 6 = 70$$

Hence, the correct answer is option c.

70. **The price of 1 kg of beans was \$15 in the month of June. The price of beans increased to \$17 by the month of July. Calculate the percentage increase in the cost of beans from June to July.**

- a. 13%
- b. 12%
- c. 10%
- d. 13.33%
- e. None of the above

Correct answer: d

Explanation:

According to the data given in the question,

Price of 1kg of beans in the month of June = \$15

Price of 1kg of beans in the month of July = \$17

Total increase in the price of beans from June till July in terms of \$ = \$2

We have to increase in terms of percentage.

Let this value be 'x'. ∴

$$x\% \text{ of } 15 = 2$$

$$\therefore 15 * x/100 = 2 \therefore 15 *$$

$$x = 100 * 2 = 200 \therefore x =$$

$$200/15 \therefore x = 13.33$$

Hence, the correct answer is option d.

Select the correct answer from the given five options by solving the following questions.

71. What percentage of 750 is equal to 225?

- a. 10%
- b. 20%
- c. 30%
- d. 40%
- e. None of the above

Correct answer: c

Explanation:

According to the data given in the question,

Exact number is 750.

Say 'x%' of 750 is 225.

We have to [find the value](#) of 'x'.

$$\text{Now, } 750 * x/100 = 225$$

$$\therefore x = 225 * 100 / 750 \therefore$$

$$x = 30$$

Hence, the correct answer is option c.

72. Find out the result when you have to divide the integer 150 in [the ratio 2:3:5](#).

- a. 100:25:25
- b. 1:75:75
- c. 50:50:50

- d. 30:45:75
- e. None of the above

Correct answer: d

Explanation:

According to the data given in the question,

The given ratio = 2:3:5

Sum of the ratio = $2+3+5 = 10$

Then, first part of the ratio = $(2/10) * 150 = 150/5 = 30$

Second part of the ratio = $(3/10) * 150 = 450/10 = 45$

Similarly, the third part of the ratio = $(5/10) * 150 = 150/2 = 75$

Hence, the correct answer is option d.

73. **Divide the integer 90 into two parts such that the second part is bigger than the first part by a value of 4. And the first part is equal to 7.**
- a. 1:90
 - b. 45:46
 - c. 7:11
 - d. 35:55
 - e. None of the above

Correct answer: d

Explanation:

According to the data given in the question,

First part of the ratio = 7

Second part of the ratio is greater than the first part of the ratio by a value of 4.

Thus, second part of the ratio = $7+4 = 11$.

Thus, we can write the ratio as 7:11

∴ Ratio of divisions = 7:11

And Sum of the ratios = $7 + 11 = 18$

∴ We can calculate the first part as, $90 \times \frac{7}{18} = \frac{630}{18} = 35$

Similarly, we can calculate the second part as, $90 \times \frac{11}{18} = \frac{990}{18} = 55$.

Hence, the correct answer is option d.

74. **The sum of the salaries of Tim, Tom and Max is equal to \$7500. Tim receives $\frac{2}{5}$ of the total sum of the salaries, whereas Tom and Max receive $\frac{1}{5}$ and $\frac{2}{5}$ of the total sum of the salaries. Find out the salary of all of them.**

- a. Tim = \$1500, Tom = \$3000, Max = \$3000
- b. Tim = \$3000, Tom = \$1500, Max = \$3000
- c. Tim = \$1500, Tom = \$300, Max = \$3000
- d. Tim = \$150, Tom = \$3000, Max = \$300
- e. None of the above

Correct answer: b

Explanation:

According to the data given in the question,

The sum of the salaries of Tim, Tom and Max = \$7500(i)

Tim receives $\frac{2}{5}$ of the total sum of the salaries(ii)

$$\therefore \left(\frac{2}{5}\right) \times (7500) = \frac{2 \times 7500}{5} = \$3000$$

∴ Tim receives a salary of \$3000.

Tom receives $\frac{1}{5}$ of the total sum of the salaries(iii)

$$\therefore \left(\frac{1}{5}\right) \times (7500) = \frac{7500}{5} = \$1500$$

∴ Tom receives a salary of \$1500.

Max receive $\frac{2}{5}$ of the total sum of the salaries(iv)

$$\therefore \left(\frac{2}{5}\right) \times (7500) = \$3000 \therefore \text{Max}$$

receives a salary of \$3000.

Hence, the correct answer is option b.

75. **Divide the amount \$650 among X, Y and Z such that X receives 1/3 of the amount what Y receives and Y receives 2/3 of the amount what Z receives. Calculate the amount received by X, Y and Z respectively.**
- \$108.33, \$216.66, \$325
 - \$120, \$240, \$290
 - \$100, \$200, \$350
 - \$150, \$150, \$350
 - None of the above

Correct answer: a

Explanation:

According to the data given in the question,

Total amount = \$650i

Amount received by X = 1/3 of the amount received by Yii

Amount received by Y = 2/3 of the amount received by Ziii We

have to find the actual amount received by X, Y as well as Z.

Say the amount received by Z = 1.

∴ Amount received by Y = $\frac{2}{3} * 1 = \frac{2}{3}$

And, from equation ii, we can say that,

Amount received by X = $\frac{1}{3} (\frac{2}{3}) = \frac{2}{6}$.

∴ Ratios of the amount received by X, Y and Z respectively = $\frac{2}{6} : \frac{2}{3} : 1 = 2 : 4 : 6$

And, sum of the ratios = $2 + 4 + 6 = 12$

∴ Amount received by X = $(\frac{2}{12}) * 650 = \frac{650}{6} = \108.33 iv

Amount received by Y = $(\frac{4}{12}) * 650 = \frac{650}{3} = \216.66 v

Amount received by Z = $\frac{6}{12} * 650 = \frac{650}{2} = \325 vi

Hence, the correct answer is option a.

Solve the following set of questions by selecting the correct answer from the given five options.

76. Pam bought 15 goats and 18 sheep for a total price of \$1678. If the cost of all the 15 goats is \$750, find the average cost of 1 sheep.

- a. \$ 50
- b. \$ 51
- c. \$ 51.55
- d. \$ 55
- e. None of the above

Correct answer: c

Explanation:

According to the data given in the question,

Total cost of 15 goats and 18 sheep = \$1678i

Total average cost of 15 goats = \$750ii

∴ The cost of 1 goat = $750/15 = 50$.

Hence, the cost of 1 goat = \$50iii

Now, the average cost of 18 sheep = $1678 - 750 = 928$ iv

∴ The average cost of 1 sheep = $928/18 = 51.55$

Hence, the average cost of each of the 18 sheep's is \$51.55.

Hence, the correct answer is option c.

77. The average weight of 26 dogs was found to be 12.5 kg. When 1 more dog was added to this group, the average weight of the dogs was found to be 500gm more than the previous average weight. Find out the weight of the new dog that is added to the group.

- a. 20kg
 - b. 25kg
 - c. 26kg
 - d. 30kg
 - e. None of the above
- Correct answer:** c

Explanation:

According to the data given in the question,

The average weight of 26 dogs = 12.5kg

∴ The total weight of 26 dogs = $26 \times 12.5 = 325\text{kg}$

When one more dog is added to this group the total number of dogs = $26 + 1 = 27$.

The average weight of 27 dogs = $12.5\text{kg} + 500\text{gms} = 13\text{kg}$

∴ The total weight of 27 dogs = $27 \times 13 = 351\text{kg}$

∴ The weight of the new dog that is added to the group = $351 - 325 = 26\text{kg}$.

Hence, the correct answer is option c.

78. If the sum of 5 consecutive numbers is equal to 15 and the average of first three numbers is twice less than the average of the last three numbers, find the value of the third number in the series. It is given that the average of the last three numbers is 4.

- a. -11
- b. -12
- c. -13
- d. -3
- e. None of the above

Correct answer: d

Explanation:

According to the data given in the question,

The sum of five consecutive numbers = 15i

And the average of last three numbers = 4ii

The average of first three numbers = average of last three numbers - 2

Hence, the average of first three numbers = $4 - 2 = 2$ iii

Hence, the sum of first three numbers = $2(3) = 6$ iv

And, the sum of last three numbers = $4(3) = 12$ v

Thus, the value of the third number in the series = $(i) - (iv) - (v) = 15 - 6 - 12 = -3$

Hence, the correct answer is option d.

79. **Andrew had 4 children. One of his children was found to be dead due to some accident. At this time the average age of all his 4 children was 16 years. What will be the average age of the remaining children of Andrew, after a time period of 7 years of the death of his child?**

- a. 4 years
- b. 16 years
- c. 23 years
- d. 100 years
- e. None of the above **Correct answer: c**

Explanation:

According to the data given in the question,

Total number of children Andrew had = 4i

The average of all his 4 children = 16 yearsii

∴ The sum of the ages of all his 4 children = $16 \times 4 = 64$ iii

And, sum of the ages of children after the death of 1 child = $16 \times 3 = 48$ iv

Now, sum of the ages of the remaining children after 7 years of the death of 1 child of Andrew = $48 + (3 \times 7) = 48 + 21 = 69$ v

Thus, the average age of his remaining 3 children after 7 years of death of his 1 child = $69/3 = 23$ vi

Hence, the correct answer is option c.

80. **Sam covers a total distance of 80km while travelling from a certain point X to a certain point Y and come back again to the start point X. He covers the first 40 km distance from point X to point Y at a speed of 25 km/hr. While travelling back to the point X from point Y, Sam drives his vehicle at a speed of 15 km/hr. Calculate the average speed of Sam for the entire journey.**

- a. 20.77 km/hr
- b. 18.77 km/hr
- c. 35.77 km/hr
- d. 17.77 km/hr
- e. None of the above

Correct answer: b

Explanation:

We know the standard formula for speed, time and distance as, distance = speed * time. Using this formula we can easily find out the correct answer to the above question.

According to the data given in the question,

Total distance covered by Sam = 80 kmi

Speed of Sam while travelling from point X to point Y = 25 km/hrii

∴ Time taken by Sam to go from point X to point Y = $40/25 = 1.6$ hoursiii

Speed of Sam while travelling back from point Y to point X = 15 km/hriv

∴ Time taken by Sam to go from point Y to point X = $40/15 = 2.66$ hoursv

∴ The total time to cover the total distance of 80 km = $1.6 + 2.66 = 4.26$ hoursvi

∴ Average speed for the entire round trip = $80/4.26 = 18.77$ km/hr

Hence the correct answer is option b.

Solve the following set of questions by selecting the correct answer from the given five options.

81. The ratio of the number of boys and girls who appeared for the exam is 15:7. Out of the total number of boys and girls, the number of boys and girls who cleared their exams is in the ratio of 3:2. Find out the percentage of boys who passed in the exam if it is given that 65 % of the girls cleared their exams.

- a. 40 %
- b. 41.5 %
- c. 45.5 %
- d. 44.5 %
- e. None of the above

Correct answer: c

Explanation:

According to the data given in the question,

The ratio of the number of boys and girls who appeared for the exam = 15:7i

Hence, let the total number of boys = $15x$ ii

And, the total number of girls = $7x$ iii

It is also given that, the total % of girls who passed the exam = 65 %iv

∴ Number of girls passing the examination = $7x * (65/100) = 4.55x$ v

It is also given that, the ratio of the number of boys and girls passing the exam = 3:2vi

∴ The number of boys who passed the exam = $3 * (4.55x) / 2 = 6.825x$ vii

∴ % of boys passing the exam = $(6.825x / 15x) * 100 = 45.5 %$ viii

Thus, 45.5% of the boys passed the examination.

Hence, the correct answer is option c.

82. Sam divides his income between his wife, son and two daughters in certain ratio. Sam gives 20 % to his son, 35 % to his wife and the remaining percentage of his savings is divided equally between his two daughters. Find the approximate amount that his wife receives if both of his daughters receive an equal amount of \$ 250.

- a. \$ 250
- b. \$ 350
- c. \$ 450
- d. \$ 460
- e. None of the above

Correct answer: d

Explanation:

Let 'x' be the total amount that is saved by Sam and divided between his wife, son and the two daughters.

According to the data given in the question,

% of total amount received by son = 20 %i

$$\therefore \text{Amount received by his son} = (20 * x)/100 = \$ x/5 \dots\dots ii$$

$$\% \text{ of total amount received by his wife} = 35 \% \dots\dots ii$$

$$\therefore \text{Amount received by his wife} = (35/100) * (x - (x/5)) = \$ 7x/4 \dots\dots iii$$

$$\% \text{ of total amount received by each of his daughter's} = (1/2) * (x - (x/5) - (7x/4)) \dots\dots iv$$

But, it is given that, each of the two daughters receive an amount of \$ 250.

$$\therefore (1/2) * (x - (x/5) - (7x/4)) = 250$$

$$\therefore 19x/20 = 250 \therefore x =$$

$$(250 * 20) / 19 \therefore x =$$

$$\$263.15 \dots\dots v$$

$$\therefore \text{Amount received by his wife} = (35/100) * (x - (x/5)) = \$ 7x/4 = (7 * 263.15) / 4$$

$$\therefore \text{Amount received by his wife} = \$460.5125$$

Hence, the correct answer is option d.

83. Which of the following statements is false with respect to the values used to represent Roman Numbers?

- i. The alphabet M is used to represent the numeric value of 1000
- ii. The alphabet I is used to represent the numeric value of 1
- iii. The alphabet C is used to represent the numeric value of 100
- iv. The alphabet L is used to represent the numeric value of 50
- e. All of them are true
- f. All of them are false
- g. Only i and ii are true
- h. Only ii and iii are true
- i. Only i and iv are true

Correct answer: a

Explanation:

According to the rules established for writing the roman numbers,

Letter I represents a value of 1

Letter V represents a value of 5

Letter X represents a value of 10

Letter L represents a value of 50

Letter C represents a value of 100

Letter D represents a value of 500

Letter M represents a value of 1000

Hence, the correct answer is option a

84. **How will you represent the term 140 with the help of roman numbers?**

- . CXXXX
- a. LCD
- b. DCL
- c. CXL
- d. None of the above

Correct answer: d

Explanation:

According to the rules used for writing the roman numbers,

Letter I represents a value of 1

Letter V represents a value of 5

Letter X represents a value of 10

Letter L represents a value of 50

Letter C represents a value of 100

Letter D represents a value of 500

Letter M represents a value of 1000

∴ 140 can be written as $100 + 40$

For 100 we can use the symbol C.

But, 40 cannot be written as XXXX, because we cannot the same symbol more than 3 times consecutively.

∴ We can write 40 as XL

Hence, we can write 140 as CXL in terms of roman numbers.

Hence, the correct answer is option d.

85. What is 12.5 % of 3565?

- . 12.5
- a. 120.5
- b. 30.5
- c. 40.5
- d. None of the above

Correct answer: e

Explanation:

We have to find out 12.5 % of 3565. Let the answer be equal to 'x'.

$$\therefore (12.5 * 3565) / 100 = x \therefore$$

$$x = 445.625$$

But, none of the options represent this value.

Hence, the correct answer is option e.

Solve the following set of questions by selecting the correct answer from the given five options.

86. The following table shows the details of marks secured by Tom, Jerry and Sam in 3 different subjects namely History, Geography and Science. The total marks that each subject is composed of are 150. Look at the table and answer the following questions.

	Tom	Jerry	Sam
History	110	95	115
Geography	100	105	120
Science	105	115	130

i. By what percent did Tom score more than Jerry in History? ii. Also find out by what percent did Sam secure more marks in Science than Tom?

c. i = 15.78, ii = 23.80

d. i = 16.78, ii = 20.80

e. i = 15, ii = 22.80

f. i = 10.78, ii = 23

g. None of the above **Correct answer:** a Explanation:

Solution for part (i):

According to the data given in the question,

Marks secured by Tom in History = 110i

Marks secured by Jerry in History = 95ii

Maximum marks to be scored in History = 150iii

From equation i and equation ii, we can that, Tom secured 15 marks more than Jerry in History.....iv

But, we have to find out the answer in terms of percentage.

∴ Increase in terms of percentage = $(15/95) * 100 = 15.78\%$ Solution for part (i)

Now, solution for part (ii):

According to the data given in the question,

Marks secured by Tom in Science = 105v

Marks secured by Sam in Science = 130vi

Maximum marks to be scored in Science = 150vii

From equation i and equation ii, we can that,

Sam secured 25 marks more than Tom in Science.....viii

But, we have to find out the answer in terms of percentage.

∴ Increase in terms of percentage = $(25/105) * 100 = 23.80\%$ Solution for part (ii)

Hence, the correct answer is option a.

87. The amount of \$ 1180 is divided among X, Y and Z in such a way that 5 times of the amount that X receives, 6 times of the amount that Y receives and 8 times of the amount that Z receives are one and the same. Find the amount received by each of the X, Y and Z. . X = \$ 480, Y = \$ 400, Z = \$ 300

- a. X = \$ 450, Y = \$ 430, Z = \$ 300
- b. X = \$ 300, Y = \$ 480, Z = \$ 400
- c. X = \$ 480, Y = \$ 300, Z = \$ 400
- d. None of the above **Correct answer: a**

Explanation:

Let the amount received by X, Y and Z be equal to x, y and z respectively.

∴ According to the data given in the question, $5x = 6y = 8z$ i

Because it is given that 5 times of the amount that X receives, 6 times of the amount that Y receives and 8 times of the amount that Z receives are one and the same.

The total amount = \$ 1180

∴ We can say that, $x + y + z = 1180$ ii

Using equation I and ii we can say that,

$$(x/24) + (y/20) + (z/15) = 1180/59 \quad \therefore$$

$$x = \$ 480$$

$$Y = \$ 400$$

$$\text{And } z = \$ 300$$

Hence, the correct answer is option a.

88. If we divide 1690 into three parts such that the ratio of these parts is equal to $1/2 : 1/3 : 1/4$, then find out the actual values that result in this ratio.

- . 100, 200, 300 a.
- 780, 520, 390
- b. 700, 600, 690

- c. 600, 780, 310
- d. None of the above

Correct answer: b

Explanation:

According to the data given in the question,

The ratio of the parts in which 1690 is divided = $1/2 : 1/3 : 1/4$i

Let the actual numbers represented by the parts = $a/2$, $a/3$ and $a/4$ respectively
.....ii

Then, the sum of these parts = $a/2 + a/3 + a/4 = 13a/12$ iii

But, according to the data given in the question, the actual number = 1690iv

∴ From equation iii and equation iv, we can say that, $13a/12 = 1690$ v

$$\therefore a = (1690 * 12) / 13$$

$$\therefore a = 1560$$

$$\therefore \text{The value of the first part} = 1/2 * 1560 = 780$$

$$\therefore \text{The value of the second part} = 1/3 * 1560 = 520$$

$$\therefore \text{The value of the third part} = 1/4 * 1560 = 390$$

Hence, the correct answer is option b.

89. Divide the number 395 into three different parts such that the second part is 25 % more than the first part and 20 % more than the third part.

- . 125, 150, 120 a.
- 120, 125, 150
- b. 120, 150, 125
- c. 125, 120, 150
- d. None of the above

Correct answer: c

Explanation:

According to the data given in the question,

Second part is 25 % more than the first parti

Second part is 20 % more than the third partii

Let the third part = x iii

\therefore The second part = $x = 20\%$ of x

\therefore The second part = $x + (x/5) = 6x/5 = 1.20x$ iv

Similarly, the first part = $1.20x - 25\%$ of $1.20x$

\therefore The first part = $0.96x$ v

But, the sum of all the three parts = 395vi

\therefore From equations iii, iv, v and vi, we can say that,

$x + 1.20x + 0.96x = 395 \therefore x = 125 =$ third part

\therefore Second part = $1.20 * x = 150$

And, the first part = $0.96 * x = 120$

Hence, the correct answer is option c

90. Which of the following discount scheme is better?

Discount 1	Discount 2
10 %	20 %
20 %	15 %
15 %	10 %

. Discount 1 is better a.
Discount 2 is better

- b. Both of them are equal
- c. Both of them are unequal
- d. None of the above **Correct answer: c**

Explanation:

Let the total amount be equal to 100.

Now, according to the first discount scheme,

After the first discount of 10 %, the amount = 90i

∴ Discount = 10

After the second discount of 20 %, the amount = $(20 * 90) / 100 = 72$ ii

∴ Discount = 18

And, after the third discount of 15 %, the amount = $(15 * 72) / 100 = 61.2$ iii

∴ Discount = 10.8

Hence, the total discount = $10 + 18 + 10.8 = 38.8$ iv

Now, according to the second discount scheme,

After the first discount of 20 %, the amount = 80i

∴ Discount = 20

After the second discount of 15 %, the amount = $(15 * 80) / 100 = 68$ ii

∴ Discount = 12

And, after the third discount of 10 %, the amount = $(10 * 68) / 100 = 61.2$ iii

∴ Discount = 6.8

Hence, the total discount = $20 + 12 + 6.8 = 38.8$ iv

∴ Both the discount schemes result in the same saving. Hence, both the discount schemes are equal.

Hence, the correct answer is option c.

Solve the following questions and select the correct answer from the given five options.

91. **If $3^x = 243$ then find out the value of 'x' to get this result.**

- a. 2
- b. 3
- c. 4
- d. 5
- e. None of the above

Correct answer: d

Explanation:

According to the data given in the question, we know that the result is a multiple of 3

We have to find out the power such that when we raise 3 to that power the result is equal to 243

Therefore, we will try out each of the option given in the question to find out the correct answer

Now, 3 raise to the power 2 = $3*3 = 9$

Now, 3 raise to the power 3 = $3*3*3 = 27$

Now, 3 raise to the power 4 = $3*3*3*3 = 81$

And, 3 raise to the power 5 = $3*3*3*3*3 = 243$

Hence, the correct answer is option d

92. **In some arithmetic sequence, the sum of the digits of the first and the second term is the third term. The series starts from the whole number 0. Find the seventh term in this series.**

- a. 5
- b. 7
- c. 6
- d. 8

- e. None of the above

Correct answer: d

Explanation:

According to the data given in the question, the numbers are in arithmetic sequence start from the number 0

Also, the sum of the first and the second term make up the third term in [the sequence](#)

We have to find out the seventh term in this sequence. Hence, as per the description we will go on adding the numbers in the series until we get the seventh term of the series.

Starting from 0, we get, the second term as 1, the third term as 1, the fourth term as 2, the fifth term as 3, the sixth term as 5 and lastly the seventh term as 8, in the following manner.

$$\begin{aligned}0+1 &= 1 \\1+1 &= 2 \\2+1 &= 3 \\3+2 &= 5 \\5+3 &= 8\end{aligned}$$

Hence, the correct answer is option d.

93. **Adam got 5 academic text books and 15 note books. If the average cost of Adam's academic text books was \$ 105 and the average cost of his writing note books was \$ 150, then find out the average cost of the total number of books purchased by Adam.**
- a. 30.125
 - b. 31.875
 - c. 28.125
 - d. 55.550
 - e. None of the above

Correct answer: b

Explanation:

According to the data given in the question, Adam got 5 academic text books and 15 writing note books respectively.

$$\therefore \text{Number of text books} = 5 \dots\dots\dots\text{i}$$

$$\text{And, number of note books} = 15 \dots\dots\dots\text{ii}$$

$$\text{Average cost of 5 academic text books} = \$ 105 \dots\dots\dots\text{iii}$$

$$\therefore \text{Cost of 1 academic text book} = \$ 105 / 5 = \$ 25 \dots\dots\dots\text{iv}$$

$$\text{Also given that, average cost of 15 writing note books} = \$ 150 \dots\dots\dots\text{v}$$

$$\therefore \text{Cost of 1 writing note book} = \$ 150 / 15 = \$ 10 \dots\dots\dots\text{vi}$$

Now, Total number of books purchased by Adam = $5 + 15 = 20$ vii

\therefore Average Cost of all the text books and note books = $(\$ 105 + \$ 150) / 8$

\therefore Average Cost of all the text books and note books = $\$ 255 / 8 = \$ 31.875$ viii

Hence, the correct answer is option b.

94. **If $(a / b) = 0.12$ then find the negative value of the reciprocal of the same fraction.**

- a. (b / a)
- b. $-(b / a)$
- c. 0.833
- d. -8.33
- e. None of the above

Correct answer: d

Explanation:

According to the data given in the question the value of the fraction $(a / b) = 0.12$

We have to find the negative value of the reciprocal of this fraction which means we have to **find the value** of $-(b / a)$

First we will find the value of (b / a)

\therefore If $(a / b) = 0.12$, then $(b / a) = (1 / 0.12)$

$\therefore (b / a) = 8.33$

Now, we will negate the sign of the result of (b/a) to get the value of $-(b/a)$ as -8.33
Hence, the correct answer is option d.

95. **If $4 - a = 8(1 - a)$, then find the value of 'a' according to this equation.** a. $1 / 5$

- b. $2 / 5$
 - c. $4 / 7$
 - d. $4 / 5$
 - e. None of the above
- Correct answer:** c

Explanation:

According to the data given in the question,

$$4 - a = 8(1 - a) \dots\dots\dots i$$

$$\therefore 4 - a = 8 - 8a$$

$$\therefore 8a - a = 8 - 4$$

$$\therefore 7a = 4 \therefore a = 4$$

$$/ 7$$

Hence, the correct answer is option c.

Solve the following questions and select the correct answer from the given five options.

96. A line named as AB consists of two other points namely X and Y between the two end points. The distance between the points A and X is 6.5 units and the distance between the points and Y and B is 2.5 units. The line segment AB measures 16.5 units in length. Find out the distance between the points X and Y respectively.

- a. 7.5 units
- b. 8.5 units
- c. 5.7 units
- d. 5.8 units
- e. None of the above

Correct answer: a

Explanation:

According to the data given in the question,

Length of line AB = 16.5 unitsi

Length of line segment AX = 6.5 unitsii

Length of line segment YB = 2.5 unitsiii

Points A and B are the two endpoints of the line segment AB

We have to find out the distance between the points X and Y respectively

\therefore With the help of the data given in i, ii as well as iii, we can say that,

$$AB = AX + XY + YB$$

$$\therefore 16.5 = 6.5 + XY + 2.5$$

$$\therefore XY = 16.5 - 6.5 - 2.5$$

$$\therefore XY = 16.5 - 9 \text{ units}$$

$$\therefore XY = 7.5 \text{ units}$$

Hence, the correct answer is option a

97. **If the square root of the cube root of some positive integer is 3, then find the integer which results in this answer.**

- a. 3
- b. 6
- c. 9
- d. 27
- e. None of the above **Correct answer: e**

Explanation:

According to the data given in the question, the square root of the cube root of some positive integer is 3.

Let this integer be 'a'.

Then, according to the above mentioned condition,

$$((a)^{1/3})^{1/2} = 3 \dots\dots\dots i$$

Taking squares on both the sides of the equation (i), we get, $(a)^{1/3} = (3)^2 = 9$ ii

Now, taking cubes on both the sides of the equation (ii), we get, $(a) = (9)^3 = 729$..

$a = 729$

But, none of the options represents this value

Hence, the correct answer is option e

98. **If $a + b = 30$ and $a - b = 6$, then find the value of the $(a + b)^2$ and also find the product of ab .**

a. 30, 6

b. 5, 30

c. 6, 30

d. 30, 4

e. None of the above **Correct answer: e**

Explanation:

According to the data given in the

question, $a + b = 30$ i

$a - b = 6$ ii

Now according to the standard **mathematical** formula,

$(a + b)^2 = a^2 + 2ab + b^2$ iii

With the help of equation (i), we get, $(a$

$+ b)^2 = (30)^2 = 30 * 30 = 900$ iv

We also have to find out the product of ab .

Hence, adding equations i and ii, we get,

$2a = 36$ $\therefore a = 18$

.....v

Now, substituting this value of 'a' in equation ii, we get,

$$\therefore 18 - b = 6$$

$$\therefore 18 - 6 = b \quad \therefore 12 =$$

$$b \quad \therefore b = 12$$

.....vi

Hence, the derived values of 'a' and 'b' are 18 and 12 respectively

Now, the product of 'a' and 'b' = $a * b = 18 * 12 = 216$

But, neither of the options contains this answer

Hence, the correct answer is option e.

99. The integer 'a' is inversely proportional to the integer 'b' and $a * b = 7$. Find out the value of integer variable 'b', for the value of the integer variable a = 1.5.

- a. 1.5
- b. 4.66
- c. 7.0
- d. 10.5
- e. 0.21 **Correct answer: b**

Explanation:

If two quantities are inversely proportional to each other, then in that case, increase in one quantity results in decrease in the other quantity

Now, according to this property and according to the data given in the question 'a' is inversely proportional to the integer 'b'

Hence, the product of 'a' and 'b' will result in some constant

Now, given that, $a * b = 7$ i

Hence, substituting the value of 'a' in (i), we get,

$$1.5 * b = 7 \quad \therefore$$

$$b = 7 / 1.5$$

$$= 4.66$$

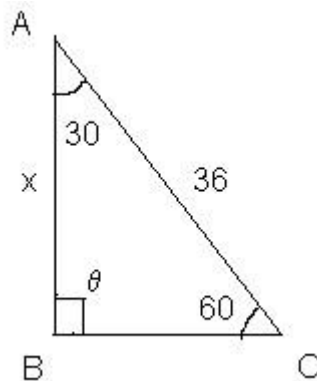
Hence, the correct answer is option b.

100. **When a 36 inch long pole is leaned against a vertical wall, it forms an angle of 30 degree with that wall. Find out the height of the point at which the pole touches the wall.**

- a. 20.125 units
- b. 30.234 units
- c. 31.176 units
- d. 35.425 units
- e. None of the above **Correct answer: d**

Explanation:

Let us have a look at the diagrammatic representation of the description given in the question.



Now, according to the description,

AC is the pole. Thus, the length of AC = 36 unitsi

Also, it is given that the pole makes an angle of 30° with the wall AB

\therefore The angle BAC = 30° ii

Also, it is given that the wall is vertical so, the measure of angle CBA = 90° iii

\therefore The measure of angle ACB = 60° , because the sum of the measures of all angles of a triangle = 180°

This tells us that the triangle ABC is a $30^\circ - 60^\circ - 90^\circ$ type of triangleiv

Now, we have to find out the height of the point at which the pole touches the wall
i.e. the length of side AB

∴ According to the standard property of 30° - 60° - 90° type of triangle,

Length of hypotenuse i.e. side AC is twice the length of side BC

∴ Length of side BC = $1 / 2 * \text{length of side AC}$

∴ Length of side BC = $1 / 2 * 36 = 18 \text{ units}$ v

Now, according to the property of 30° - 60° - 90° type of triangle, the length of side opposite to the 60° angle = $\sqrt{3} * \text{length of side BC}$

∴ Length of side AB = $\sqrt{3} * 18 = 1.732 * 18 = 31.176 \text{ units}$.

Thus, the pole touches the wall at a height of about 31.176 units on the vertical wall

Hence, the correct answer is option d.

Solve the following questions and select the correct answer from the given five options.

101. **When a women weighing 65 kg is replaced by another women, then the average weight of a group of 10 women is found to be increased by 1 kg. Find out the weight of the new woman that is added to the group.**
- a. 65 kg
 - b. 75 kg
 - c. 85 kg
 - d. 60 kg
 - e. None of the above

Correct answer: b

Explanation:

According to the data given in the question,

Total number of women in the group = 10i

The average weight of a group of 10 women increases by 1 kg when a women weighing 65 kg is replaced with a new woman.

Total increase in the weight of a group of 10 women = $10 * 1 = 10 \text{ kg}$ ii

Now, weight of the new woman added to the group = weight of the woman that is replaced + total increase in the weight of the entire group of 10 women

∴ Weight of the new woman added to the group = $65 + 10 = 75$ kgiii

Hence, the correct answer is option d.

102. **In what proportion should we mix the wheat of Rs. 2.50 per kg with the wheat of Rs. 3.50 per kg such that the resultant mixture of wheat costs Rs. 3.00 per kg?**

- a. 1 : 1
- b. 1 : 2
- c. 2 : 1
- d. 1 : 1.5
- e. None of the above **Correct answer:** a

Explanation:

We will solve this solve using the concept of allegation.

According to the data given in the question,

Rate of the first type of wheat = $R_1 = \text{Rs. } 2.50 = 250$ paisei

Rate of the second type of wheat = $R_2 = \text{Rs. } 3.50 = 350$ paiseii

The mean rate of the mixture of the two types of wheat = $R_m = (250 + 350) / 2 = 600 / 2 = 300$ paiseiii

The quantity of the first type of wheat = $N_1 = R_m - R_2 = 300 - 250 = 50$ paiseiv

The quantity of the second type of wheat = $N_2 = R_1 - R_m = 350 - 300 = 50$ paisev

Now, $N_1 / N_2 = 50 / 50 = 1 : 1$

So the required ratio = 1 : 1

Hence, the correct answer is option a.

103. **The working capacity of John is twice as that of Jim and hence, John can finish a piece of work in 15 days less than the number of days required by Jim to do the same piece of work. In how much time can they complete the same piece of work when both John and Jim work together?**

- a. 10 days
- b. 20 days
- c. 30 days

- ∴ d. 40 days
- e. None of the above **Correct answer: a**

Explanation:

According to the data given in the question,

Let, Jim finishes the piece of work in 'x' daysi

∴ John can complete the work in (x - 30) daysii

The working capacity of John is twice as that of Jim.

∴ Time taken by John is 1 / 2 of the time taken by Jimiii

∴ From equations (i), (ii) and (iii), we can say that,

$$(x - 30) = x / 2 \text{iv}$$

$$\therefore 2(x - 30) = x \therefore$$

$$2x - 60 = x \therefore x =$$

$$30 \text{v}$$

∴ Time taken by Jim to complete the work = 30 days

Since, it is given that John can complete the piece of work in 15 days less than the days required by Jim.

Thus, we can say that the time taken by John = 30 - 15 = 15 daysvi

Now, work done by John in 1 day = 1 / 15vii

Work done by Jim in 1 day = 1 / 30viii

Work done by both John and Jim in 1 day = (1 / 15) + (1 / 30) = (3 / 30) = 1 / 10

∴ John and Jim together can finish the whole work in 1 / (1 / 10) = 10 days.

Hence, the correct answer is option a.

104. **Certain numbers of boys are able to finish a work in 25 days. If the number of boys is increased by 10, then they can finish the same work in 10 days less. How many boys were employed originally to do the work?** a. 10
b. 20
c. 15
d. 40
e. None of the above **Correct answer: c**

Explanation:

Let the original number of boys employed = 'x'i

Then, according to the data given in the question,

Number of boys is increased by 10

∴ New number of boys = $x + 10$ ii

Time required by x boys to do the work = 25 daysiii

Time required by the new number of boys = $25 - 10 = 15$ daysiv

Now, equating equations (i), (ii), (iii) as well as (iv), we get,

$$\begin{aligned}x &: (x + 10) :: 15 : 25 \\ \therefore (x / x + 10) &= 15 / 25 \\ \therefore 25x &= 15 (x + 10) \\ \therefore 25x &= 15x + 150 \\ \therefore 25x - 15x &= 150 \therefore \\ 10x &= 150 \therefore x = 15 \\ \dots\dots\dots v\end{aligned}$$

Thus, there were 15 boys employed originally to do the work.

Hence, the correct answer is option c.

105. **Two pipes A and B can fill a tank in 10 hours and 12 hours respectively when they are opened at the same time to fill the tank. But, because of one leakage at the bottom of the tank, it takes 30 more minutes to fill up the tank. In what time will the leakage empty the tank, if the tank is filled completely?**
a. 10 hours
b. 12 hours

- c. 30 hours
- d. 60 hours
- e. None of the above

Correct answer: d

Explanation:

According to the data given in the question,

Time taken by pipe A to fill the tank = 10 hoursi

Time taken by pipe B to fill the tank = 12 hoursii

∴ Work done by both the pipes A and B in 1 hour = $(1 / 10) + (1 / 12)$

∴ Work done by both the pipes A and B in 1 hour = $22 / 120$ iii

∴ Time taken by both the pipes A and B to fill the tank completely in the absence of the leakage = $120 / 22$ hours = 5 hours and 30 minutesiv

Time taken to fill the tank with leakage = (5 hours 30 minutes) + (30 minutes) = 6 hoursv

∴ The amount of work done by the pipes A as well as B and the leak in 1 hour = $1 / 6$ vi

∴ Work done by the leak in 1 hour = $(22 / 120) - (1 / 6) = 1 / 60$

∴ Time required by the leakage to empty the tank = $1 / (1 / 60) = 60$ hours.

Hence, the correct answer is option d.

Select the correct answer from the given five options by solving the following questions.

106. **A piece of work is done by Tina in 10 days. The same piece of work is done by Amy in 15 days. In how many days will Tina and Amy finish the same amount of work if they work together?**

- a. 10 days
- b. 6 days
- c. 12.5 days
- d. 13 days
- e. None of the above

Correct answer: b

Explanation:

According to the data given in the question,

Time taken by Tina to do the work = 10 daysi

Time taken by Amy to do the work = 15 daysii

∴ Work done by Tina in 1 day = $1 / 10$ iii

Similarly, work done by Amy in 1 day = $1 / 15$ iv

∴ Work done by both Tina and Amy in 1 day = $(1 / 10) + (1 / 15)$

∴ Work done by both of Tina and Amy in 1 day = $1 / 6$ v

∴ When Tina and Amy work together they can complete the work in $(1 / (1 / 6)) = 6$ days.

Hence, the correct answer is option b.

107. **Which of the following algebraic formulae are true?**

- i. Speed = Distance / Time
- ii. Distance = speed * time
- iii. Time = Distance / Speed iv. Time = speed * distance
- e. Only statement (i) is true
- f. Only statements (i) and (ii) are true
- g. Only statements (i), (ii) and (iii) are true
- h. All statements are true
- i. all statements are false

Correct answer: c

Explanation:

The formulae given in the statements (i), (ii) as well as (iii) are true.

But, the formula given in the fourth statement is false.

Hence, the correct answer is option c.

108. **Two trains X and Y are moving in opposite direction, one from station A to station B and the other from station B to station A. the train X reaches its destination i.e. station A in 14 hours and the train Y reaches its destination i.e. station B in 20 hours after the trains meet. If the speed of train X is 20 km per hour, then what is the speed of the train Y?**
- . 30 km per hour
 - a. 35 km per hour
 - b. 27 km per hour
 - c. 38.57 km per hour
 - d. None of the above

Correct answer: d

Explanation:

According to the data given in the question,

Train X travels at a speed of = 20 km / hri

Train x reaches its destination station B in time = 14 hoursii

Train Y reaches its destination station A in time = 20 hours after they meetiii

Now, let the speed of train Y be x km per houriv

∴ From equation (i), (ii), (iii) and (iv), we can say that,

$$20 : x :: 14 : 20$$

$$\therefore 20 / x = 14 / 20 \therefore$$

$$20 * 20 = 14 * x \therefore$$

$$x = 400 / 14 \therefore x =$$

$$28.57 \text{ km / hr}$$

Thus, train B travels at a speed of 28.57 km per hour.

Hence, the correct answer is option d.

109. **David observes that it takes 6 sec for a train to pass him when he is standing at the railway platform. But, to pass the platform the train takes 10 sec. If the length of the train is 150 meters, then what is the speed of the train?**

- . 20 km / hr
- a. 25 km / hr

- b. 30 km / hr
- c. 35 km / hr
- d. None of the above

Correct answer: b

Explanation:

According to the data given in the question,

Time taken by the train to cross David = 6 seci

Time taken by the train to cross the platform = 10 secii

Length of the train = 150 metersiii

The standard formula to calculate the speed of the train when it passes a stationary object without considerable length = length of the train / time taken by the train to pass the object

$$\therefore \text{Speed of the train} = 150 / 6 = 25 \text{ km / hr}$$

Hence, the correct answer is option b.

110. **When the man rows a boat in still water his speed is 7 km / hr. But, if the river water runs at speed of 3 km / hr, then the man takes 1.5 hours to reach a certain place and come back. What is the distance covered by the man?**

- . 4.285 km
- a. 3.285 km
- b. 1.285 km
- c. 2.285 km
- d. None of the above

Correct answer: a

Explanation:

According to the data given in the question,

Speed of the man in still water = 7 km / hri

Speed of the moving river water = 3 km / hrii

Time taken by the man to reach a certain place and come back = 1.5 hours = 1 hr and 30 miniii

We have to find the distance covered by the man.

Let this distance be 'x' km.

The speed of man while going downstream = $7 + 3 = 10$ km / hriv

The speed of man while upstream = $7 - 3 = 4$ km / hrv

Total time taken by the man to row x km and come back = $(x / 10) + (x / 4)$

But, the man takes 90 minutes or 1 hour and 30 min to cover this distance.

$$\therefore (x / 10) + (x / 4) = 1.5$$

$$\therefore 4x + 10x = 40 * 1.5$$

$$\therefore 14x = 60$$

$$\therefore x = 4.285 \text{ km} = 4 \text{ km and } 285 \text{ meters}$$

$$\therefore \text{The total distance covered by man is } 4.285 \text{ km}$$

Hence, the correct answer is option a.

Choose the most correct answer from the given five options for each of the following problem solving question.

111. **Tina can do a piece of work in 15 days, whereas Mina can do the same piece of work in 20 days. If they work together for 7 days and then Tina goes away for a leave. Then, in how many days will Mina alone complete the remaining piece of work?**

- a. 3.66 days
- b. 2 days
- c. 1 day
- d. 10 days
- e. None of the above

Correct answer: a

Explanation:

According to the data given in the question,

Number of days required by Tina to complete the work = 15 daysi

Number of days required by Mina to complete the work = 20 daysii

Now, work done by Tina in 1 day = $1 / 15$ iii

And, work done by Mina in 1 day = $1 / 20$ iv

∴ Work done by both Tina and Mina in 1 day = $(1 / 15) + (1 / 20) = 7 / 60$ v

∴ Work done by both Tina and Mina in 7 days = $7 (7 / 60) = 49 / 60$ vi

Now, remaining amount of work = $1 - 49 / 60$

∴ Remaining amount of work = $60 - 49 / 60 = 11 / 60$ vii

Since, according to the data in statement (iv), $1 / 20$ of the work is done by Mina in 1 day.

∴ $11 / 60$ of the **work will** be done Mina in $(20) * (11 / 60) = 11 / 3 = 3.66$ days

Hence, Mina will complete the remaining work in 3.66 days.

Hence, the correct answer is option a.

112. **A can complete a piece of work in 12 days, whereas B and C can complete the same piece of work in 15 days and 18 days respectively. A, B and C start **working** together. But, A leaves the work after 3 days and B leaves the job incomplete just before 2 days before the completion of the work. For how many days did the work last?**

- a. 7 days
- b. 7.7727 days
- c. 8 days
- d. 8.7727 days
- e. None of the above

Correct answer: b

Explanation:

According to the data given in the question,

Days required by A to do the work = 12 daysi

Days required by B to do the work = 15 daysii

Days required by C to do the work = 18 daysiii

Hence, from data i, ii and iii, we can say that,

A, B and C work together for 3 daysiv

C works alone for 3 daysv

Work done by A, B and c in 3 days = $3 * (1 / 12 + 1 / 15 + 1 / 18) = 37 / 60$

∴ A, B as well as C complete $37 / 60$ of the total work in 3 daysvi

Now, work done by C alone in 3 days = $3 * (1 / 18) = 1 / 6$ vii

Remaining work to be done = $1 - (37 / 60 + 1 / 6) = 13 / 60$ viii

∴ Work done by both B and C in 1 day = $(1 / 15 + 1 / 18) = 11 / 90$

Thus, $11 / 90$ of the total work is completed by both B and C in 1 dayix

∴ Time required by both B and C to complete $13 / 60$ of the total work = $(90 / 11) * (13 / 60) = 39 / 22$ days = 1.7727 daysx

∴ Total time taken by all three of A, B and C to complete the work = $3 + 3 + 1.7727 = 7.7727$ days

Hence, the correct answer is option b.

113. **Pipe A can fill the bucket in 10 minutes while pipe B can fill the same bucket in 15 minutes respectively. First both pipes are opened together to fill the bucket. But, after 2.5 minutes the pipe A is turned off. In how much time will the bucket can be filled?**

- a. 5 minutes
- b. 6 minutes
- c. 8.125 minutes
- d. 7.125 minutes
- e. None of the above **Correct answer: c**

Explanation:

According to the data given in the question,

Time taken by pipe A to fill the bucket = 10 minutesi

Time taken by pipe B to fill the bucket = 15 minutesii

∴ Part of the bucket filled by A in 1 minute = $1 / 10$ iii

And, part of the bucket filled by B in 1 minute = $1 / 15$ iv

∴ Part of the bucket filled by both A and B in 2.5 minutes = $2.5 * (1 / 10 + 1 / 15)$

∴ Part of the bucket filled by both A and B in 2.5 minutes = $2.5 / 4$ v

Now, part of the bucket left to be filled = $1 - (2.5 / 4) = (4 - 2.5 / 4) = 1.5 / 4$ vi

As, $1 / 15$ part of the bucket is filled by pipe B in 1 minute

∴ $1.5 / 4$ part of the bucket will be filled by pipe B in $15 * (1.5 / 4) = 5.625$ minutes.

∴ Total time required to fill the bucket completely = $2.5 + 5.625 = 8.125$ minutes

Hence, the correct answer is option c.

114. **Tom and Jerry can complete a piece of work in 12 days when they work together. When only Tom works, he can finish the work in 20 days. How long will Jerry take to complete the work?**

- a. 10 days
- b. 20 days
- c. 25 days
- d. 30 days
- e. None of the above

Correct answer: d

Explanation:

According to the data given in the question,

Time taken by both Tom and Jerry to do a piece of work = 12 daysi

Time taken by tom alone to do the work = 20 daysii

∴ Work done by both Tom and Jerry in 1 day = $1 / 12$ iii

And, similarly, work done by Tom alone in 1 day = $1 / 20$ iv

∴ Work done by Jerry alone in a day = $(1 / 12) - (1 / 20) = 1 / 30$ v

∴ Time taken by Jerry to finish the work alone = **30 days**.

Hence, the correct answer is option d.

115. **X and Y together can do a piece of work in 18 days. When Y and Z work together, they can do the work in 24 days. But, when X and Z work together, they can do the same piece of work in 30 days. In how much time will the three of X Y as well as z will complete the same work?**
- a. 3.8297 days
 - b. 3 days
 - c. 4 days
 - d. 5 days
 - e. None of the above

Correct answer: a

Explanation:

According to the data given in the question,

Time taken by both X and Y to do a piece of work = 18 daysi

∴ Work done by both X and Y in 1 day = $1/x + 1/y = 1/18$ ii

Time taken by both Y and Z to do a piece of work = 24 daysiii

∴ Work done by both, Y and Z in 1 day = $1/y + 1/z = 1/24$ iv

Time taken by both X and Z to do a piece of work = 30 daysv

∴ Work done by both X and Z in 1 day = $1/x + 1/z = 1/30$ vi

Now, let, X, Y and z complete the work in x, y and z days respectivelyvii

Thus, work done by X, Y and Z in 1 day = $1/x, 1/y, 1/z$ respectivelyviii

Now, adding equations ii, iv and vi we get,

$$2(1/x + 1/y + 1/z) = 1/18 + 1/24 + 1/30$$

$$\therefore (1/x + 1/y + 1/z) = 2(1/18 + 1/24 + 1/30)$$

$$\therefore (1/x + 1/y + 1/z) = 423/1620$$

$$\therefore X, Y \text{ and } Z \text{ can complete the work together in } 1620/423 \text{ days} = 3.8297 \text{ days.}$$

Hence, the correct answer is option a.

Choose the most correct answer from the given five options for each of the following problem solving question.

116. **Raven walks at a certain speed daily from his home to school. If the speed of raven is reduce by $3 / 7^{\text{th}}$ part of his normal speed then, it takes 20 more minutes for Raven to reach his school. Calculate the time taken by Raven to reach his school when he walks at his usual speed?**

- a. 15 minutes
- b. 20 minutes
- c. 25 minutes
- d. 30 minutes
- e. None of the above

Correct answer: a

Explanation:

According to the data given in the question,

Decrease in the usual speed of Raven = $3 / 7$ i

Now, let 'x' be the time taken by Raven to reach the school when he is walking at his normal speedii

But, as the speed is reduced by $3 / 7$ of the regular speed,

\therefore The time now taken by Raven to reach the school = $7 / 3$ of the usual time.

But, it is given that, it takes 20 minutes more than the normal time 'x' for Raven to reach the school with reduced speed.

$$\therefore (7 / 3) x = x + 20$$

$$\therefore 7x = 3x + 60 \therefore$$

$$4x = 60$$

$$\therefore x = 60 / 4 = 15 \text{ minutes}$$

Thus, it takes 15 minutes for Raven to reach his school when he is walking at his normal speed.

Hence, the correct answer is option a.

117. **Rose leaves her home early in the morning so that she can reach her college on time. If she walks at the rate of 7 km / hr then she reaches her college 8 minutes late. But, if she walks at a speed of 8 km / hr, then she reaches her college 4 minutes early. What is the distance between Rose's house and her college?**

- a. 10 km
- b. 11.2 km
- c. 11.5 km
- d. 12 km
- e. None of the above

Correct answer: b

Explanation:

Time taken by Rose to cover a distance of say 1 km at a speed of 7 km / hr = $1 / 7$ hri

Similarly, time taken by rose to cover a distance of say 1 km at a speed of 8 km / hr = $1 / 8$ hrii

Hence, the difference in both the time = $1 / 7 * 1 / 8 = 1 / 56$ iii

Now, according to the data given in the question,

When Rose walks at a speed of 7 km / hr she reaches late by 8 minutes

And, when Rose walks at a speed of 8 km / hr she reaches early by 4 minutes

∴ The total difference of time in covering the entire distance (d) = (8 + 4) = 12 minutes = $1 / 5$ hours.

Now, if the time difference of $1 / 56$, the distance covered by Rose is 1 km, then, the distance covered by Rose for a time difference of $(1 / 5)$ hour = $(1) * (1 / 5) / (1 / 56) = 56 / 5 = 11.2$ km.

Thus, the distance between Rose's house and college = 11.2 km.

Hence, the correct answer is option b.

118. **In a hurdle race, Tom is beaten by Patrick by a distance of 25 meters or 10 seconds. How much time did Patrick take to finish the hurdle race of total 1 km?**

- a. 5 minutes and 20 seconds
- b. 4 minutes and 20 seconds

- c. 6 minutes and 30 seconds
- d. 7 minutes and 20 seconds
- e. 8 minutes and 20 seconds **Correct answer: c**

Explanation:

According to the data given in the question,

Tom covers a distance of 25 meters in 10 seconds.

Total distance to be covered in the hurdle race = 1 km = 1000 m

∴ Time taken by Tom to complete the race = $(10 / 25) * 1000 = 400$ seconds

∴ Time taken by Patrick to complete the entire hurdle race = $400 - 10 = 390$ seconds.

Now, 390 seconds = 6 minutes and 30 seconds

Hence, the correct answer is option c.

119. **Rose, Lilly and Jasmine participate in a km race. Rose gives a start of 20 meters to Lilly. Also, Jasmine is given a start of 350 meters by Rose. How many meters of start can be given by Lilly to Jasmine?**

- a. 10.15 meters
- b. 15 meters
- c. 16.31 meters
- d. 15.31 meters
- e. None of the above

Correct answer: d

Explanation:

Rose gives a start of 20 meters and 35 meters to Lilly and Jasmine means that, Lilly starts 20 meters ahead of Rose and Jasmine starts 35 meters ahead of Rose.

Now, according to the data given in the question,

Distance covered by Rose = 1000 metersi

Distance covered by Lilly = $(1000 - 20)$ meters = 980 metersii

Distance covered by Jasmine = $(1000 - 35)$ meters = 965 metersiii

Now, when Lilly covers a distance of 980 meters, Jasmine covers a distance of 965 meters.

∴ When Rose covers a distance of 1000 meters, distance covered by Lilly = $(965 / 980) * 1000 = 984.69$ meters.

∴ Lilly can give a start of $(1000 - 984.69)$ meters to Jasmine

∴ Lilly can give a start of 15.31 meters to Jasmine.

Hence, the correct answer is option d.

120. **A, B and C are playing a game of billiards. In a game of 60 points, A can give B 15 points, while in a game of 90; A can give 20 points to C. How many points can C give to B in a game of 70 points?**

- a. 5.5 points
- b. 6.5 points
- c. 8 points
- d. 7.5 points
- e. None of the above

Correct answer: d

Explanation:

According to the data given in the question,

In a game of billiards of 60 points, points given by A to B = 15 pointsi

∴ If 60 points are scored by A, then points scored by B = $60 - 15 = 45$ pointsii

In a game of billiards of 90 points, points given by A to C = 20 pointsiii

∴ If 90 points are scored by A, then points scored by C = $90 - 20 = 70$ pointsiv

∴ If A scores 60 points, then points scored by C = $(70 / 90) * 60 = 420 / 9$ pointsv

Thus, we can say that, when C scores $420 / 9$ points, then points scored by B = 45 pointsfrom equation i and v

∴ When C scores 70 points, then points scored by B = $(45 * 70 * 9) / 420 = 67.5$ points

Thus, the points that C can give to B in a game of $70 = 67.5 / 9 = 7.5$ points

Hence, the correct answer is option d.

Choose the correct answer from the given five options by solving the following quantitative questions.

121. **What will be the result of $[12] - [10]$, if it is given that $[x] = -x^2$.** a. -44
b. 44
c. 144
d. 100
e. None of the above

Correct answer: a

Explanation:

According to the data given in question, $[x] = -x^2$.

Substituting the value of x as $x=12$ in this equation, we get, $[12] = -144$

Now, substituting the value of x as $x=10$ in this equation, we get, $[10] = -100$ Now,

substituting these values in $[12] - [10] = (-144) - (-100) = -144 + 100 = -44$

Hence, the correct answer is option a.

122. **The annual income of Ralph is 35 percent less than the annual income of Mike. Calculate the increase in the annual income of Mike in terms of percentage in comparison to the annual income of Ralph.**
a. 25 %
b. 35 %
c. 20 %
d. 30 %
e. None of the above

Correct answer: b

Explanation:

Let \$100 be the annual income of Mike.

Now, according to the data given in the question, annual income of Ralph is less than the annual income of Mike by 35 percent.

$$\therefore 35\% \text{ of } 100 = \$ 35$$

Hence, we can say that the annual income of Ralph is \$ 65, when annual income of Mike is \$ 100.

But, we have to find the percentage increase in the annual income of Mike as compared to annual income of Ralph.

$$\therefore \text{Percentage increase in annual income of Mike} = 100 - 65 = 35 \%$$

Hence, the correct answer is option b.

123. **There are in all 27 balls in a basket which are red and green in color. The number of red balls was 13 and the number of green balls is 1 more than the number of red balls. Ravi is said to pick a ball that is only green in color. Find out the probability that Ravi picks out only a green color ball from this bag.**

- a. 13 / 27
- b. 27 / 13
- c. 14 / 27
- d. 27 / 14
- e. None of the above **Correct answer: c**

Explanation:

According to the data given in the question,

Total number of balls in the bag = 27i

Total number of red balls in the bag = 13ii

Total number of green balls in the bag = 14iii

$$\therefore \text{The probability that Ravi picks out only a green colored ball} = 14 / 27 \text{iv}$$

Hence, the correct answer is option c.

124. **Certain numbers of children were playing a game of football. There was a trial taking place on the field. In this trial the probability that a goal is scored is 2/5. The probability that a girl hits a goal is 7/10 whereas the**

probability that a boy hits a goal is 1/5. What will be the probability that not only a goal is hit but it is also hit by a boy?

- a. 14 / 50
- b. 7 / 50
- c. 2 / 5
- d. 2 / 25
- e. None of the above

Correct answer: d

Explanation:

According to the data given in the question,

The probability that a girl scores a goal = $7 / 10$ i

The probability that a boy hits a goal = $1 / 5$ ii

The probability that a goal is scored by any of the child = $2 / 5$ iii

We know that, the probability that two events will take place simultaneously is denoted by the product of the individual occurrences of each of the different events.

∴ The probability that the two events namely a goal is scored and it is also scored by a boy, will take place at one and the same time = $(2 / 5) * (1 / 5) = 2 / 25$

Hence, the correct answer is option d.

125. **The price at which Jim sold his 26 articles is the same as that of the price at which he bought 25 articles. What is the gain in percentage that Jim made in this business?**

- a. 4 %
- b. 5 %
- c. 6 %
- d. 10 %
- e. None of the above

Correct answer: a

Explanation:

According to the data given in the question,

Total number of articles purchased by Jim = 25

Total number of articles sold by Jim = 26

The cost price (C.P.) of 25 articles = The selling price (S.P.) of 26 articlesi

Now, let the cost price of 1 article be \$ 1ii

∴ The cost price of 25 articles = \$ 25iii

Also, from data (i) as well as (ii),

The selling price of 26 articles = The cost price of 25 articles = \$ 25iv

∴ Jim's gain in terms of percentage = $(26 - 25) * 100 / 25 = 1 * 100 / 25$

∴ Jim's gain in terms of percentage = $100 / 25 = 4 \%$

Hence, the correct answer is option a.