



Pabitra Sir Classes

Dream, Aim, Achieve

Personal guidance center for CAT, GMAT preparation

SRCC GBO 2017

Contact



www.pabitrasirclasses.com

9851078349

www.test.pabitrasirclasses.com

7003948466

Verbal ability

Instructions

Study the passages below to answer the questions that follow each passage.

Passage-I

India needs an effective safety case regulatory regime. There are over 1,900 major accident hazard (MAH) control units or facilities in India. There are also thousands of registered hazardous factories below MAH criteria. There are numerous factories in unorganised sectors storing and handling hazardous chemicals, posing serious and complex risks to people, property and the environment. Major chemical and petrochemical disasters, killing many, have occurred almost every year since the 1984 Bhopal gas leak disaster. In addition to the loss of lives; these disasters have eroded the manufactured, human and natural capital base of the Indian economy. Adverse impacts to the banking and finance sector are also significant. Insurers and underwriters can potentially become insolvent if disasters of the scale of the Bhopal gas leak were to occur. India should formulate and implement a comprehensive safety case legislative framework. At present, various elements of safety are dispersed in various rules that have become antiquated, when compared to current industry best practice and community expectations. India should consolidate the intent and the principles underpinning various Acts and Rules relevant to MAH control units, and develop a self-contained and an integrated legislative framework. There are also Acts and Rules promulgated by the Petroleum and Explosive Safety Organisation (PESO) and the Oil Industry Safety Directorate (OISD) that lie outside the realm of MAH Rules. There is a need to bring together the best elements from these acts and rules to develop a cohesive regulatory framework. The control rules do not explicitly consider safety management systems, while major accidents have been occurring invariably point towards systemic failures at the facilities. The control rules must define what constitutes a safety management system and demonstrate how key requirements are being met. Implementing these reforms and measures will be critical to achieving process safety excellence. Process safety excellence is a key differentiator to competitive advantage in global markets as it can lead to consistently high quality and reliable supplies. It can also restore public confidence in safety governance and encourage collaboration and partnership with local communities on industrial and spatial safety planning. At present, safety audits are primarily focused on occupational safety and health issues and lack sufficient technical rigour. The audit scope, and methodology should be expanded to include auditing of major incident event scenarios and controls identified and assessed for each scenario. The audits should seek evidence on performance assurance of safety controls. Investigative and technical rigour should be enhanced in the inspections that are being undertaken by the inspectorate. There should be a national capacity building programme for inspectors in process safety, incident investigation, and auditing and inspections. Universities and professional institutions should contribute to the long-term skill development of inspectorates. To achieve drastic reductions in the frequency and number of major accidents, India should transform its safety regulatory system and build professional capacities within the inspectorate. As a side benefit, this will also enable its strong and vibrant chemical and petrochemical industry to become world class, both in market and safety performance.

Question 1

What is the primary/main focus of this article?

- A India has numerous factories/facilities which pose major accident hazards.
- B There is a legislative framework formulated for industrial safety.
- C Recurring industrial accidents point to systemic failures necessitating a major transformation in our safety regulatory system.
- D Indian industry does not have a good safety record.

Answer: E

Question 2

Why should India formulate and implement a comprehensive safety legislative framework?

- A To reduce loss of lives and adverse impact on the Indian economy.
- B To instill confidence in the workers, and general public about our safety governance.
- C To gain global competitive advantage through high quality and reliable supplies
- D All these

Answer: E

Question 3

According to the author, currently our MAH rules are

- A cohesive, integrated and self-contained.
- B dispersed and not in conformity with current best practices in the industry.
- C as per the expectations of society
- D considering all aspects affecting safety management.

Answer: E

Question 4

In the opinion of the author, what needs to be done to transform our safety regulatory system?

- A Integrate relevant elements of all applicable acts and rules and develop a self-contained legislative framework.
- B Establish a holistic safety audit system and develop skilled professionals to undertake the same.
- C Define the elements of a safety management system and how they are being met.
- D All these

Answer: E

Question 5 According to the author, presently our safety audit systems

- A adequately cover all aspects of an accident/incident.

- B have appropriate/sufficient technical orientation.
- C concentrate on health and individual occupational safety.
- D are holistic and evaluate the implementation of the safety management system. Answer: E

Instructions

Study the passages below to answer the questions that follow each passage.

Passage II

A global shift is clearly underway. Many organisations are finding themselves in short supply of the right talent as their operations expand globally. The problem is only going to be exacerbated further over time.

According to a recent research report, in order to sustain economic growth, by 2030, the US will need to add more than 25 million workers and in other western countries, a further 45 million employees will be required. However, due to the uneven quality of education systems, only 25 per cent of Indian professionals are currently considered employable by multinationals. Something must be done in India to ensure our talent is able to take their seat at the table in an increasingly competitive global talent market.

The realisation has dawned on Indian leaders that effective performance management is not only a key to delivering results (perhaps the most powerful HR tool in doing so), but also plays a fundamental role in developing talent in the right direction and promoting employee engagement and retention. Companies are moving away from the 'competitive assessment' model and are inching towards a 'coaching and development' model of performance management. The competitive assessment model assumes that organisations improve through a process of 'rigid individualism' in which employees are ranked and rated against each other, thus driving performance on a comparative basis. The coaching and development model assumes that people perform best through careful selection, then coaching, development and continuous focus on job fit.

Executive coaching, leadership coaching and performance coaching form the crux of all coaching and development models:

Executive coaching reserved for the top tier of the organisation. The purpose of this coaching is to help executives improve both their performance and leadership abilities. It is provided by someone outside the firm who holds an unbiased perspective towards the executive.

Leadership coaching that focuses on helping managers throughout the organisation become better leaders in order to prepare them for the next level of leadership.

Performance coaching is for all employees that focuses on improving employees' performance in their current jobs. This coaching is frequently, but not always, reserved for those who are, at a minimum, meeting expectations.

Most organisations struggle to effectively leverage performance coaching - senior leaders do it infrequently and managers do not do it well. Further, HR often fails to adequately support it. The most severe performance management challenge is managers' inability to coach their employees. It has been found that organisations highly effective at teaching managers to engage in on-going coaching and the

ones who provide excellent cultural support for coaching, reported significantly higher employee productivity.

A high-impact coaching culture is like a three-legged stool, with leaders, employees, and HR each having important responsibilities to fulfill. HR's role is to create the environment for coaching, do the needful and then measure the impact. Senior leaders must communicate the importance of coaching through their actions and words. Finally, employees of all levels need to adequately prepare for and actively manage their performance and their development.

Question 6

In the opinion of the author,

- A multinational can employ only a limited number of Indian professionals because of our education system.
- B there is a shortage of right talent to meet likely future needs.
- C India needs to act to avail this market opportunity.
- D All these

Answer: E

Question 7 According to the article, which of the following statements is true? I. The competitive assessment model focuses only on the comparative performance of employees. II. Indian leaders consider performance management as a very powerful HR tool. III. Most Indian companies feel that the competitive assessment model adequately meets the HR needs of their organization.

- A Both I and II
- B Both II and III
- C Both I and III
- D All these

Answer: E

Question 8

Which of the following statements is not true?

- A An outsider should conduct executive coaching.
- B Leadership coaching focuses on improving an employee's current performance.
- C Employee productivity is directly affected by the manager's ability/inability to coach
- D Both the US and other Western countries require large number of employees to sustain their economies.

Answer: E

Question 9

Coaching will be fruitful if

- A the employees are very qualified.
- B capable professional trainers are hired by HR.
- C leaders, HR department and employees are fully involved
- D leadership is strict.

Answer: E

Question 10

An effective performance management system should enable an organization to

- A objectively assess individual performance.
- B identify development needs.
- C decide on retention/employability.
- D All these

Answer: E

Instructions

Fill in the blanks.

Question 11

Ironically, the normally speaker became shy and when confronted with the approbatory stares of her eager audience.

- A quiet, passionate
- B glib, reticent
- C dispassionate, passionate
- D humble, supercilious

Answer: E

Question 12

Although the whole team acted in unison, each member was for a/an of the production process.

- A reliable, source
- B responsible, element
- C appointed, article
- D agreeable, felony

Answer: E

Question 13

The studies of the children were and was the result of it.

- A neglected, ignorance
- B interrupted, incongruences
- C off tracked, alienation
- D instructed, genius

Answer: E

Question 14

Confused and Gaurav fumbled to make sense of seemingly inconsistent statements, the impatience of his listeners.

- A prostrate, listening to
- B muddled, aware of
- C philosophical, overlooking
- D incoherent, oblivious to

Answer: E

Question 15

Just as a highway automobile accident leaves lasting marks of spilled coolant, and oil, the smashing together of gigantic land masses releases and redirects fluids that flow, heat, and deposit, leaving an enduring record of their presence.

- A petrol, disappear
- B fuel, evaporate
- C paint, mark
- D anti-freeze, drip

Answer: E

Instructions

Choose the word which best expresses the meaning of the underlined word in the sentence

Question 16

They shunned him because he was a lecherous man always looking for an opportunity to cheat others.

- A deceptive

- B lustful
- C dishonest
- D cunning
- E None of these

Answer: E

Question 17

Sunil employed my friend only when I agreed to avouch for his honesty.

- A pay
- B guarantee
- C vow
- D affirm

Answer: E

Question 18

They knew by his sophomoric remarks that he was still naive in the field.

- A unpalatable
- B casual
- C immature
- D ignorant

Answer: E

Instructions

Each of these questions has a text portion followed by four alternative summaries. Choose the option that best captures the essence of the text.

Question 19

This decade has heralded the arrival of China and the rise of India on the world stage. Due to global recession, the balance of power is shifting from the West to East. China has already occupied second place in the world's biggest economies. But India is still struggling with - formidable challenges like crushing poverty of millions, uneven growth, pervasive corruption and crumbling governance. Can we, in all honesty aspire to be a genuine super power?

- A Economic meltdown in the West has tilted the balance of economic power towards Asia.
- B China's Gross Domestic Product is next only to that of The United States of America.

C Even though India is a fast growing economy, it has to cross many hurdles before becoming a Super Power.

D Corruption and poverty in India are the main hindrances to its economic growth.

Answer: E

Question 20

Get your grammar right! Live in the active voice rather in the passive, thinking more about what you do than about what happens to you. Live in the present tense, facing the duty at hand without regret for the past or worrying about the future. Live in the first person, criticizing yourself rather than finding faults with others.

A Self-introspection is always better than being critical of others.

B The past is gone, future is uncertain; so live for the present.

C Do your duty earnestly without worrying about the outcome.

D Be optimistic, confident, hard working and self-introspective.

Answer: E

Question 21

Alexander technique is a therapy in complementary medicine for improving health by teaching people to move, sit and stand efficiently. It is designed to release unnecessary muscle tensions in order to eliminate or reduce the severity of wide range of disorders like back pain, asthma, repetitive strain, injury and stuttering. Training is carried out in one to one sessions under a qualified teacher. The technique was started by F Matthias Alexander in 1890 for his breathing problem and: hoarseness.

A Alexander technique is a 120 years old therapy by F Matthias Alexander for his self-treatment.

B Alexander technique therapy is practiced in one to one session under the guidance of an expert.

C In Alexander technique, a qualified teacher works on the postures of a person, releasing muscular tension, to cure a number of disorders.

D Alexander technique is helpful in pains, lung problems, spinal problems and speech disorders.

Answer: E

Question 22

As things stand now, each country's financial system is being sustained and supported by its own government. Governments- are primarily concerned with their own economies. This gives rise to financial protectionism, which threatens to disrupt and perhaps destroy global financial markets.. So regulations must become international in scope. Otherwise, global financial markets will be destroyed by regulatory arbitrage.

A Global markets need global regulations but each nation is rooted in the principle of national sovereignty.

- B Financial protectionism damages the concept of globalization.
- C Global markets need international guidelines for the smooth running of global trade.
- D Every country tries to protect its own financial interests.

Answer: E

Question 23

Leadership is somewhat indefinable quality. It has so many dimensions and attributes. It demands vision, courage, understanding, determination and decisiveness. Integrity, communication skills and openness are the other must have virtues of a leader. It cannot exist devoid of a sense of timing, a capacity to act and above all an ability to inspire. A leader is eventually judged by his mettle in the rises, Those who have left their mark are always winners after overcoming Crises.

- A Leadership is a multidimensional quality which requires a large array of attributes in one person.
- B Leadership is influencing others to achieve a common goal.
- C Leadership is foundation of all organizations whether corporate, non-profit or government.
- D Leadership is tested and proven in times of trial and adversity and those who surmount these go down in the annals of history.

Answer: E

Instructions

Choose the word which is opposite in meaning of the underlined word in the sentence. Question 24 Her impetuous behavior was attributed to her unbringing.

- A sluggish
- B swift
- C rash
- D sensible

Answer: E

Question 25

There was no altruistic motive that prompted him to help her.

- A brutal
- B selfish
- C inhuman
- D wicked

Answer: E

Question 26

According to a great philosopher magnanimity in a man implies many other qualities.

- A jealousy
- B enmity
- C meanness
- D poverty

Answer: E

Instructions

Out of the four alternatives, choose the one which can be substituted for the words/sentence.

Question 27

Large scale departure of people

- A immigration
- B Exodus
- C piracy
- D Transfer

Answer: E

Question 28

A short stay at a place

- A Sojourn
- B Interlude
- C Gap
- D Interval

Answer: E

Instructions

Choose the order of the sentences marked A, B, C, D and E to form a logical paragraph.

Question 29

A. India, on the other hand, would have adequate young manpower to even overtake China after sometime:

B. But, a direct consequence of these is a situation where China would not have enough young workforce to further develop its economy after a few years.

C. China's population is much larger than that of India.

D. As a result, China has been able to check its population growth effectively. E. However, in the past two decades or so, China enforced strict measures to control its population growth.

A EBACD

B CBDAE

C BDEAC

D CEDBA

Answer: E

Question 30

A. Therefore, hiring the services of a coordinator to execute the associated tasks is a good idea.

B. The fact is, a well-planned wedding would be a remembrance for a life time.

C. With myriad functions taking place, a wedding ceremony is nothing short of a theatrical production.

D. Indian weddings are usually elaborate affairs. E. With many details for each function to be considered, it becomes so important to plan to streamline the process.

A EBCAD

B ADECB

C DCEAB

D BDCAE

Answer: E

Question 31

A. This is the reason for achieving high academic excellence.

B. All these professors are highly qualified.

C. This university has completed 100 years.

D. Initially, the university had only six departments. E. Now, it has 100 professors working in 30 departments.

A DEABC

B CDEBA

C CBAED

D EABCD

Answer: E

Question 32

- A. Presently, we have thirteen IIMs.
- B. The first IIM was established in 1961 in Kolkata.
- C. At the time of independence, India did not have any management institute of high repute.
- D. However, the need to have more IIMs was still felt.
- E. Subsequently, a few more IIMs were set up at various locations in India.

A EDBAC

B DBACE

C CBDEA

D BCADE

Answer: E

Question 33

- A. The house is quite old and in a bad shape.
- B. Through it, I can see an old woman seated in a chair.
- C. Far away in a narrow street there is a house.
- D. Her face is worn and full of wrinkles.
- E. One of the windows is open.

A DBCAE

B CAEBD

C ECDAB

D BEACD

Answer: E

Instructions

Identify the best way of writing the sentence in the context of the correct usage of standard written English.

Question 34

- A To reach the destination, the man followed the route given in the map because he was confused.
- B As he became confused, the man had to follow the route given in the map to reach the destination.
- C The man was confused, so he followed the route-given in the map to reach the destination.

D To reach the destination, as the man was confused, he followed the route given in the map.

Answer: E

Question 35

A New words could be used, if required, to express the full force of exclamation.

B If necessary, new words should be used to express the full force of exclamation.

C To express the full force of exclamation, if necessary, new words will be used,

D New words are used, if required, to express the full force of exclamation.

Answer: E

Question 36

A Neither he comes nor he writes a letter now.

B Neither does he come nor he writes a letter now.

C Neither he comes nor does he write letter now.

D Neither does he come nor does he write a letter now.

Answer: E

Question 37

A Emily but saw him turning again to the papers and she stopped hastily retiring.

B Emily was hastily retiring; but she saw, turning again to the papers, and she stopped.

C Emily stopped retiring; but she saw him turning again to the papers.

D She saw him turning again to the papers, and she stopped, and went again to retire.

Answer: E

Question 38

A At first the jury was divided in opinion, but finally it returned a unanimous verdict.

B At first the jury were divided in opinion, but finally it returned a unanimous verdict.

C At first the jury was divided, in opinion, but finally they returned a unanimous verdict.

D At first the jury were divided in opinion, but finally they returned a unanimous verdict.

Answer: E

Instructions

Choose the option which best expresses the meaning of the underlined idiom/phrase in the sentence.

Question 39

Why you should always be the one to cast the first stone?

- A be deeply involved
- B be the first to attack
- C praise first of all
- D start a fight

Answer: E

Question 40

While I have a bath, you may chew the cud.

- A think carefully about something
- B go through legalities
- C have breakfast
- D kill time

Answer: E

Pabitra Sir Classes

Quantitative Aptitude

Instructions

For the following questions answer them individually

Question 41

Two coal loading machines, each working 12 hours per day for 8 days, handle 9000 tonnes of coal with an efficiency of 90%; while 3 other coal loading machines at an efficiency of 80% are set to handle 12000 tonnes of coal in 6 days. How many hours per day should each machine work?

- A 18 h/day
- B 16 h/day
- C 20 h/day
- D 14 h/day

Answer: B

Explanation:

$$\text{Using } \frac{M_1 D_1 H_1}{W_1} = \frac{M_2 D_2 H_2}{W_2}$$

Let hours per day each machine should work

$$\Rightarrow \frac{2 \times 8 \times 12}{9000} \times 90 = \frac{3 \times 6 \times t}{12000} \times 80$$

$$\Rightarrow 16 \times 12 = 12t$$

$$\Rightarrow t = 16$$

\therefore The machine should work = 16h/day

\Rightarrow Ans - (B)

Question 42

Six pipes are fitted to a water tank. Some of these are inlet pipes and the others outlet pipes. Each inlet pipe can fill the tank in 9 hours and each outlet pipe can empty the tank in 6 hours. On opening all the pipes, an empty tank is filled in 9 hours. The number of inlet pipes is

- A 4
- B 3
- C 2
- D 5

Answer: A

Explanation:

Let the number of inlet pipes be x and number of outlet pipes $= (6 - x)$

According to question,

$$\Rightarrow \frac{x}{9} - \frac{6-x}{6} = \frac{1}{9}$$

$$\Rightarrow \frac{6x - 54 + 9x}{54} = \frac{1}{9}$$

$$\Rightarrow 15x - 54 = 6$$

$$\Rightarrow 15x = 60$$

$$\Rightarrow x = 4$$

There are 4 inlet pipes.

Question 43

A student purchased a computer system and a colour printer. If he sold the computer system at 10% loss and the colour printer at 20% gain, he would not lose anything. But if he sells the computer system at 5% gain and the colour printer at 15% loss, he would lose ₹800 in the bargain. How much did he pay for the colour printer?

- A ₹16000
- B ₹8000
- C ₹9000
- D ₹5334

Answer: A

Explanation:

Let cost price of color printer = Rs. $100x$ and C.P of computer system = Rs $100y$

Case 1 : SP of color printer when sold at 20% profit = Rs. $120x$

Similarly, SP of computer system = Rs. $90y$

According to ques,

$$\Rightarrow 100x - 100y = 120x + 90y$$

$$\Rightarrow 10y = 20x$$

$$\Rightarrow y = 2x \dots \dots \dots (1)$$

Case 2 : SP of color printer at 15% loss = Rs. $85x$

SP of computer system = Rs. $105y$

$$\Rightarrow \text{Loss} = (100x + 100y) - (85x + 105y) = 800$$

$$\Rightarrow 15x - 5y = 800$$

$$\Rightarrow 3x - y = 160$$

Substituting value from equation (i), $\Rightarrow x = 160$

Cost Price of color printer = Rs. 16,000 \Rightarrow Ans - (A)

Question 44

Suppose that a maximum of 25 gm of salt dissolves in 100 gm of water. Any more salt, if added, remains undissolved and a sediment falls at the bottom. Now, water is evaporated from 1 kg of a 4% solution at the rate of 28 gm per hour. After how long will it start sedimenting approximately?

- A 29 hours
- B 31 hours
- C 35 hours
- D 23 hours

Answer: E

Question 45 In a defective 6 faced die with numbers 1 to 6 inscribed, the probability of getting an odd number is twice the probability of getting an even number. Find the probability of getting a 2 digit prime number on 2 successive throws of the die.

- A $\frac{2}{81}$
- B $\frac{4}{81}$
- C $\frac{1}{3}$
- D $\frac{1}{9}$

Answer: E

Question 46

The fuel indicator in a car shows $\frac{1}{4}$ of the fuel tank as full. When 22 more litres of fuel is poured into the tank, the indicator rests at three-fourth of the full mark. What is the capacity of the fuel tank?

- A 40 litres
- B 30 litres
- C 25 litres
- D 35 litres

Answer: A

Explanation:

Let capacity of fuel tank = $100x$

According to ques,

$$\Rightarrow \frac{1}{5} \times 100x + 22 = \frac{3}{4} \times 100x$$

$$\Rightarrow 20x + 22 = 75x$$

$$\Rightarrow 75x - 20x = 55x = 22$$

$$\Rightarrow x = \frac{2}{5}$$

$$\text{Capacity} = 100 \times \frac{2}{5} = 40 \text{ litres}$$

\Rightarrow Ans - (A)

Question 47

A sum of money is accumulating at compound interest at a certain rate of interest. If simple interest instead of compound were reckoned, the interest for the first two years would be diminished by ₹20 and that for the first three years by ₹61. What is the sum?

- A ₹7500
- B ₹7000
- C ₹8000
- D ₹6500

Answer: C

Explanation:

$$\text{Difference between S.I. and C.I. for two years} = \frac{Pr^2}{100^2} = 20 \dots \dots (1)$$

$$\text{Difference for three years} = \frac{Pr^2}{10^2} \left(3 + \frac{r}{100} \right) = 61 \dots \dots (2)$$

$$\text{Substituting value from equation (i) in equation (ii),} \Rightarrow 20 \times \left(3 + \frac{r}{100} \right) = 61$$

$$\Rightarrow 3 + \frac{r}{100} = \frac{61}{20} = 3.05$$

$$\Rightarrow \frac{r}{100} = 3.05 - 3 = 0.05$$

$$\Rightarrow r = 5\%$$

$$\text{Substituting back in equation (i),} \Rightarrow P \times \frac{25}{100 \times 100} = 20$$

$$\Rightarrow P = 20 \times 400 = \text{Rs. } 8,000$$

\Rightarrow Ans - (C)

Question 48

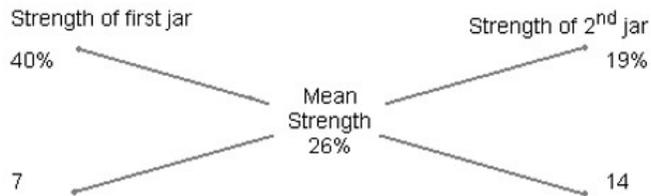
A jar full of milk contains 40% water, A part of this milk is replaced by another containing 19% water and now the percentage of water is found to be 26%. The quantity of milk replaced is

- A $\frac{2}{3}$
- B $\frac{1}{3}$
- C $\frac{3}{7}$
- D $\frac{4}{7}$

Answer: A

Explanation:

By rule of alligation, we have



So, ratio of first and second quantities = 7:14 = 1:2

Thus, Required quantity replaced = $\frac{2}{3}$

=> Ans - (A)

Question 49

A fair coin is tossed repeatedly, If head appears on the first four tosses, then the probability of appearance of tail on the fifth toss is

- A $\frac{1}{2}$
- B $\frac{1}{7}$
- C $\frac{3}{7}$
- D $\frac{2}{3}$

Answer: A

Explanation:

When the coin is flipped fifth time, there is a chance of getting either head or tail. So, probability of getting head on fifth toss is . It doesn't depend on first four outcomes.

=> Ans - (A)

Question 50

The electricity bill of a certain establishment is partly fixed and partly varies with the number of units of electricity consumed. When in a certain month 540 units are consumed, the bill is ₹1800. In another month 620 units are consumed and the bill is ₹2040. In yet another month 500 units are consumed. The bill for that month would be

- A ₹1680
- B ₹1560
- C ₹1840
- D ₹1950

Answer: A

Explanation:

Let constant amount each month = Rs. A and for x units consumed it is Rs. B

=> For a month, total bill = $A + Bx$

According to ques, $\Rightarrow A + 540B = 1800$ (1)

And $A + 620B = 2040$ (2)

Subtracting equation (1) from (2), $\Rightarrow 80B = 240$

$\Rightarrow B = 3$

Substituting above value in equation (1), $\Rightarrow A = 1800 - 1620 = 180$

Bill for 500 units consumed = $180 + (500 \times 3) = 180 + 1500 = \text{Rs. } 1680$

=> Ans - (A)

Question 51

A booster pump can be used for filling as well as for emptying a tank. The capacity of the tank is 2400 m³. The emptying capacity of the tank is 10 m³ per minute higher than its filling capacity and the pump needs 8 minutes less to empty the tank than it needs to fill it, What is the filling capacity of the pump?

- A 60 m³/min
- B 50 m³/min
- C 72 m³/min
- D None of these

Answer: E

Explanation:

- • 25 Question ab solve ste vs Quadratic eq form ste
- ste option elimination ste

As per Question Capacity = 2400 m³
 Fill → x m³/min
 empty → $(x+10)$ m³/min

- options →
- (a) 6
 - ~~(b) 50~~
 - (c) 72
 - (d) None of these

(a)	$\frac{2400}{60} = 40$	$\frac{2400}{70} = 34.28$
(b)	$\frac{2400}{50} = 48$	$\frac{2400}{60} = 40$

= 8 min (✓)

Question 52

A and B walk around a circular track, They start at 8 a.m. from the same point in the opposite directions. A and B walk at a speed of 4 rounds per hour and 3 rounds per hour respectively How many times shall they cross each other before 9.30 a.m.?

- A 6
- B 5
- C 7
- D 8

Answer: E

Explanation

Pabitra Sir Classes

∴ Speed of A is not printed or
misprinted or not given in the
question so Answer can't be
found out.

Public

Question 53

The dimensions of a room are 10 m x 7 m x 5 m. There are 2 doors and 3 windows in the room. The dimensions of the doors are 1 m x 3 m. One window is of size 2 m x 1.5 m and the other two windows are of size 1 m x 1.5 m. The cost of painting the walls at ₹3 per m is

- A ₹578.50
- B ₹474
- C ₹684
- D ₹894

Answer: E

Explanation:

Handwritten solution for Question 53:

$$\begin{aligned} \text{Total Surface Area of Room} &= 2(lb + bh + hl) \\ &= 2(10 \times 7 + 7 \times 5 + 10 \times 5) \\ &= 310 \text{ m}^2 \\ \text{T.S.A of two doors} &= 2 \times 1 \times 3 = 6 \text{ m}^2 \\ \text{T.S.A of one window} &= 2 \times 1.5 = 3 \text{ m}^2 \\ \text{T.S.A of other two windows} &= \frac{2 \times 1 \times 3}{2} = 3 \text{ m}^2 \\ \text{Remaining Area to be painted} &= 310 \\ &\quad - (6 + 3 + 3) \\ &= 298 \text{ m}^2 \\ \therefore \text{Cost} &= 298 \times 3 \\ &= 894 \text{ ₹} \end{aligned}$$

Question 54

There are two bags, one of which contains 3 black and 4 white balls, while the other contains 4 black and 3 white balls. A dice is cast, if the face 1 or 3 turns up, a ball is taken from the first bag and if any other face turns up, a ball is chosen from the second bag. The probability of choosing a black ball is

- A $\frac{11}{21}$
- B $\frac{10}{21}$

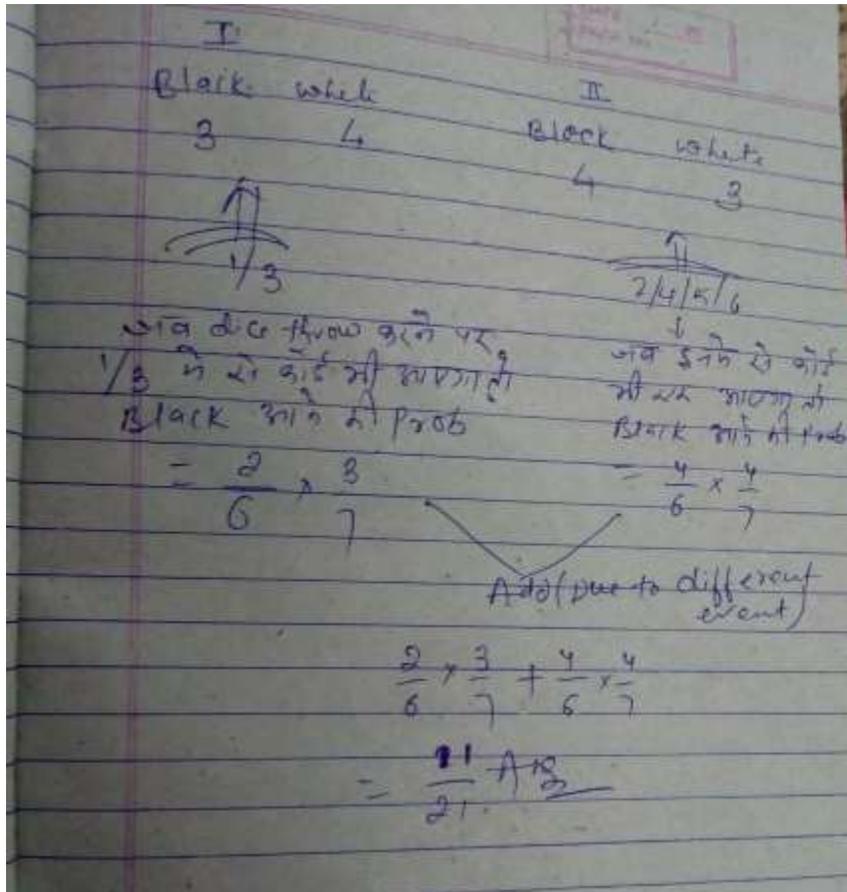
C $\frac{12}{21}$

D $\frac{9}{21}$

E None of these

Answer: E

Explanation:



Question 55

A runs $1\frac{2}{3}$ times as fast as B. If A gives B a start of 80 m, how far must the winning post be so that A and B reach it at the same time?

A 300 m

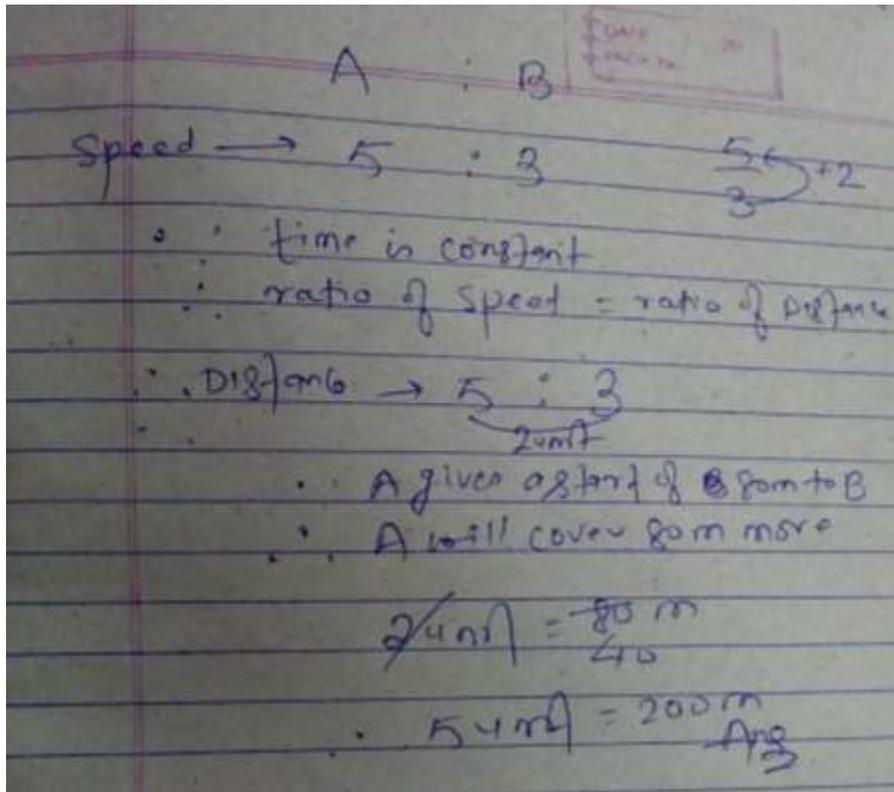
B 200 m

C 270 m

D 160 m

Answer: E

Explanation:



Question 56

A cistern, open at the top, is to be lined with lead sheet which weighs 27 kg/m . The cistern is 4.5 m long and 3 m³ wide and holds 50 m . The weight of lead required is

- A 1764.60 kg
- B 1864.62 kg
- C 1660.62 kg
- D 1860.62 kg

Answer: E

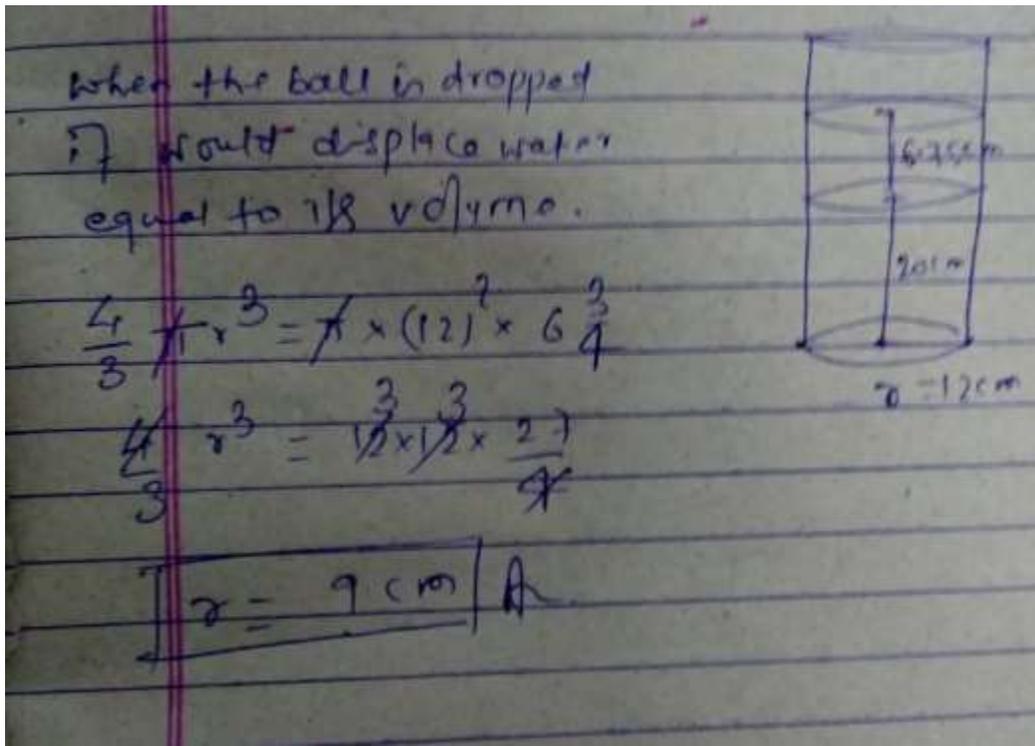
Question 57

A cylindrical tub of radius 12 cm contains water up to a depth of 20 cm. A spherical iron ball is dropped into the tub and thus the level of water is raised by 6.75 cm. The radius of the ball is

- A 6 cm
- B 4.5 cm
- C 7.25 cm
- D 9 cm

Answer: E

Explanation:



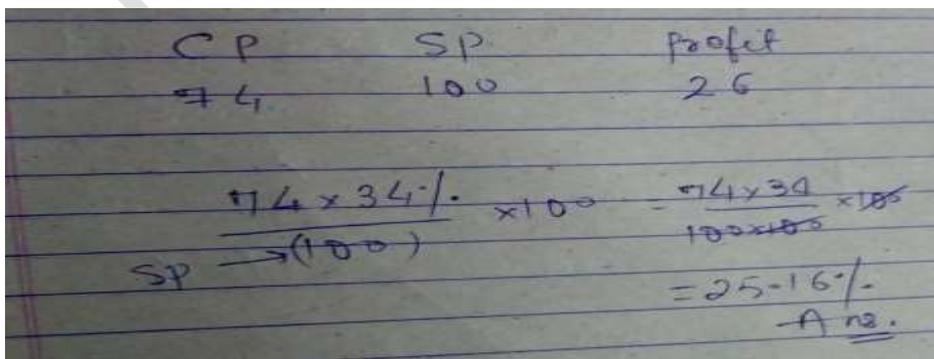
Question 58

What per cent selling price would be 34% of the cost price if the gross profit is 26% of the selling price?

- A 74.00%
- B 25.16%
- C 17.16%
- D 88.40%

Answer: E

Explanation:



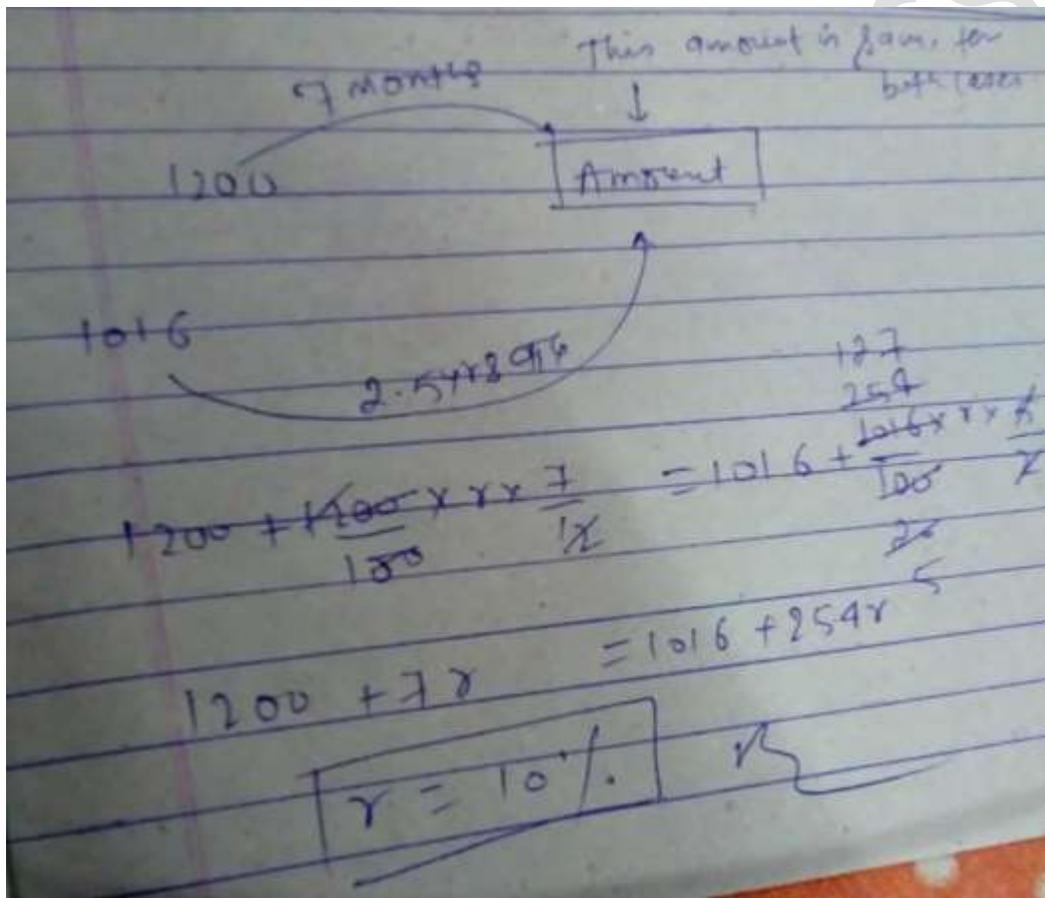
Question 59

The present worth of a bill due 7 months hence is ₹1200. If the bill were due at the end of years, its present worth would be ₹1016. What is the rate per cent of the bill?

- A 8%
- B 10%
- C 16%
- D 18%

Answer: E

Explanation:



Question 60

If the ages of P and R are added to twice the age of Q, the total becomes 59. If the ages of Q and R are added to thrice the age of P, the total becomes 68, and if the age of P is added to thrice the age of Q and thrice the age of R, the total becomes 108. What is the age of P?

- A 19 years

- B 15 years
- C 17 years
- D 12 years

Answer: E

Explanation:

$$\begin{aligned}
 P + R + 2Q &= 59 \quad \text{--- (i)} \\
 Q + R + 3P &= 68 \quad \text{--- (ii)} \\
 P + 3Q + 3R &= 158 \quad \text{--- (iii)} \\
 \text{Add (i) + (ii) + (iii)} \\
 4P + 4Q + 4R &= 176 \\
 P + Q + R &= 44 \quad \text{--- (iv)} \\
 \text{(ii) - (iv)} \\
 \cancel{Q} + \cancel{R} + 3P &= 68 \\
 \cancel{P} + \cancel{Q} + \cancel{R} &= 44 \\
 \hline
 2P &= 24 \\
 \boxed{P = 12} \quad \text{A}
 \end{aligned}$$

Question 61

If 6 years are subtracted from the present sate and the remainder is divided by 18, then the present age of his grandson Anupis obtained. If Anup is 2 years younger to Mahesh whose age is 5 years, whatis the age of Shyam?

- A 48 years
- B 60 years
- C 84 years
- D 96 years

Answer: B

Explanation:

Present age of Mahesh = 5 years

Present age of Anup = 5 - 2 = 3 years

Let present age of Suresh = S

Now,

$$\frac{S-6}{18} = 3$$

S-6=54 years

S=60 years

Question 62

There are two concentric circular tracks of radii 100 m and 102 m respectively. A runs on the inner track and goes once round the track in 1 minute 30-seconds, while B runs on the outer track in 1 minute 32 seconds. Whoruns faster?

- A A
- B B
- C Cannot be determined
- D Both run at same speed

Answer: A

Explanation: Let speed of A and B is 'a' m/s and 'b' m/s respectively.

Circumference of inner track = $2\pi r = 200\pi m$

Circumference of outer track = $2\pi r = 204\pi m$.

Now,

$$a = \frac{200\pi}{90} = 2.22\pi \text{ m/s approx}$$

$$b = \frac{204\pi}{92} = 2.21\pi \text{ m/s approx}$$

Hence, A is faster than B.

Question 63 A man observes that when he moves up distance C metres on a slope, the angle of depression of a point on the horizontal plane from the base of the slope is θ , and when he moves up a further distance of C metres, the angle of depression of that point is 2θ . The angle of inclination of the slope with the horizontal is

- A 45°
- B 60°

C 75°

D 30°

Answer: E

Question 64

Out of 20 consecutive positive integers, two are chosen at random. The probability that their sum is odd is

A

B

C

D

Answer: A

Explanation:

Out of 20 consecutive positive integers, 10 are even numbers and 10 odd numbers.

Sum is odd when one number of even and other is odd.

Favorable cases = $10C_1 * 10C_1 = 10 * 10$

Total cases = $20C_2 = 10 * 19$

Required probability = $\frac{(10 \times 10)}{10 \times 19} = \frac{10}{19}$

Question 65

A man covers a certain distance on a toy train. If the train moved 4 km/hr faster, it would take 30 minutes less. If it moved 2 km/hr slower, it would have taken 20 minutes more, What is the distance covered?

A 65 km

B 60 km

C 70 km

D 75 km

Answer: B

Explanation:

Let the time taken to cover 'D' km with speed S km/h is T hours.

D = ST

$$D = (s + 4) \times \left(T - \frac{30}{60}\right)$$

$$D = ST - \frac{S}{2} + 4T - \frac{4}{2}$$

$$D = D - \frac{S}{2} + 4T - \frac{4}{2}$$

$$8T - S = 4 \dots \dots (1)$$

$$D = (S - 2) \times \left(T + \frac{20}{60}\right)$$

$$D = ST + \frac{S}{3} - 2T - \frac{2}{3}$$

$$S - 6T = 2 \dots \dots (2)$$

From (1) and (2):

$$T = 3 \text{ and } S = 20$$

$$D = ST = 60 \text{ km}$$

Question 66

Two trains, 130 and 110 metres long, are going in the same direction. The faster train takes one minute to pass the other completely. If they are moving in opposite directions, they pass each other completely in 3 seconds. What is the speed of the faster train?

- A 42 m/sec
- B 38 m/sec
- C 46 m/sec
- D 50 m/sec

Answer: A

Explanation:

Let speed of faster and slower train is 'x' m/sec and 'y' m/sec respectively.

$$\text{Now, } 130 + 110 = (x - y) * 60$$

$$x - y = 4$$

$$130 + 110 = (x + y) * 3$$

$$x + y = 80$$

$$\text{Speed of faster train} = \frac{4+80}{2} = 42 \frac{m}{sec}$$

Question 67

The average age of all the students of a class is 18 years, The average age of boys of the class is 20 years and that of the girls is 15 years. If the number of girls in the class is 20, then what is the number of boys in the class?

- A 30
- B 15
- C 45
- D 50

Answer: A

Explanation:

Let total number of boys in the class = B

Now,

$$\text{Average age of the class} = \frac{20 \times B + 15 \times 20}{B + 20}$$

$$18(B + 20) = 20B + 300$$

$$18B + 360 = 20B + 300$$

$$2B = 60$$

$$B = 30$$

Question 68

The total tractors in a State. are 294000, out of which 150000 are made by Mahindra & Mahindra. Out of every 1000: Mahindra tractors, 98 are red in colour, But only 5.3% of the total tractors are red. Find the percentage of non-Mahindrer tractors that are red.

- A 6.125%
- B 5.025%
- C 5.130%
- D 6.140%

Answer: A

Explanation:

Total tractors = 294000

Mahindra & Mahindra tractors = 150000

Non-Mahindra tractors = 294000 - 150000 = 144000

$$\text{Total red colour Mahindra tractors} = 150000 \times \frac{98}{100} = 147000$$

Total red colour tractors = 53% of 294000 = 155820

Total red colour Non-Mahindra tractors = 155820 - 147000 = 8820

Required percent = $\frac{8820}{144000} \times 100 = 6.125$

Question 69

A merchant makes a profit of 20% by selling an article. What would be the approx. percentage change in the profit per cent had he paid 16% less for it and the customer paid 10% more for it?

- A 120%
- B 125%
- C 133.33%
- D 150%

Answer: C

Explanation:

Price at which merchant purchased = 100x

Price at which merchant sold = 120% of 100x = 120x

New price at which merchant purchased = 90% of 100x = 90x

New price at which merchant sold = 110% of 120x = 132x

New profit percent = $\frac{132-90}{90} \times 100 = 46.67$

Difference between profit percents = 46.67 - 20 = 26.67%

Required percent = $\frac{26.67}{20} \times 100 = 133.33\%$

Question 70

If 15 men or 24 women or 36 boys can do a piece of work in 12 days, working 8 hours a day, how many men must be associated with 12 women and 6 boys to do another piece of work times as great in 30 days working 6 hours a day?

- A 6
- B 4
- C 8
- D 10

Answer: C

Explanation:

15 men or 24 women or 36 boys wah do a piece of work in 12 days.

$$15M = 24W$$

$$1W = \frac{5}{8}M$$

$$15M = 36B$$

$$1B = \frac{5}{12}M$$

Let 'x' men are required.

Now,

$$2\frac{1}{4} \times 15M \times 12 \times 8 = (xM + 12W + 6B) \times 30 \times 6$$

$$\frac{9 \times 15M \times 12 \times 8}{4} = (xM + 7.5M + 2.5M) \times 30 \times 6$$

$$(x+10)=18$$

$$x = 8$$

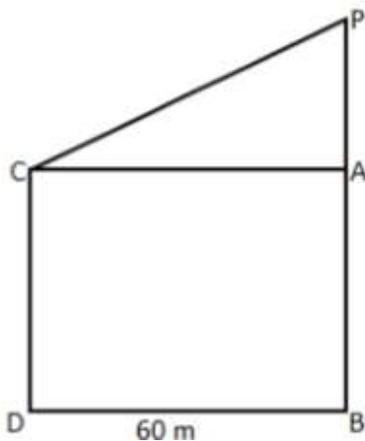
Question 71

The horizontal distance between two towers is 60 m. The angular elevation of the top of the taller tower as seen from the top of the shorter one is 30° . If the height of the taller tower is 150 m, the height of the shorter one is

- A 100 m
- B 116 m
- C 106 m
- D None of these

Answer: B

Explanation:



Let height of shorter tower = CD = AB = x

$\angle ACP = 30^\circ$

AP = PB - AB = 150 - x

AC = BD = 60 m

Now,

$$\tan 30^\circ = \frac{AP}{AC}$$

$$\frac{1}{\sqrt{3}} = \frac{150 - x}{60}$$

$$150 - x = \frac{60}{\sqrt{3}} = 20\sqrt{3}$$

$$x = 150 - 20\sqrt{3}$$

$$x = 150 - 34.64 = 115.36 = 116m$$

Question 72

A boat travels upstream from B to A and downstream from A to B in 3 hours. If the speed of the boat in still water is 9 km/hour and the speed of the current is 3 km/hour, what is the distance between A and B?

A 6 km

B 4 km

C 8 km

D 12 km

Answer: D

Explanation:

Let the distance between A and B = 'D' km

Speed of the boat in still water = 9 km/h

Speed of the current = 3 km/h

Upstream speed = 9 - 3 = 6 km/h

Downstream speed = 9 + 3 = 12 km/h

Now,

$$\frac{D}{6} + \frac{D}{12} = 3$$

$$2D + D = 36$$

$$D = 12$$

Question 73 Out of the total production of iron from hematite, an ore of iron, 20% of the ore gets wasted. Out of the remaining iron, only 25% is pure iron. If the pure iron obtained in a year from a mine of hematite was 80000 kg, then the quantity of hematite mined in the year is

- A 400000 kg
- B 500000 kg
- C 450000 kg
- D 600000 kg Answer: A

Explanation:

Total amount of ore in a year = $100x$

Wasted ore = 20% of $100x = 20x$

Remaining ore = $100x - 20x = 80x$

Amount of pure iron = 25% of $80x = 80000$

$$20x = 80000 \quad x = 4000$$

Quantity of hematite mined in the year = $100x = 400000$ kg

Question 74

A car driver, driving in a fog, passes a pedestrian who was walking at the rate of 2 km/h in the same direction. The pedestrian could see the car for 6 minutes and it was visible to him up to a distance of 0.6 km. What was the speed of the car?

- A 15 km/h
- B 30 km/h
- C 20 km/h
- D 8 km/h Answer: D

Explanation:

Let speed of car = ' x ' km/h

Effective speed when car and pedestrian travelling in the same direction = $(x - 2)$

Since the pedestrian could see the car up to a distance of 0.6 km.

So, total distance = 0.6 km

$$\text{Now, } (x - 2) \times \frac{6}{60} = 0.6$$

$$x - 2 = 6 \rightarrow x = 8$$

Question 75

A, B and C working together completed a job in 10 days. However, C only worked for the first three days when of the job was done. Also, the work done by A in 5 days is equal to the work done by B in 4 days.. How many days would be required by the fastest worker to complete the entire work?

- A 25 days
- B 20 days
- C 30 days
- D 40 days

Answer: B

Explanation:

Since the work done by A in 5 days is equal to the work done by B in 4 days.

So, time taken by A and B alone to do the work is $5x$ and $4x$ respectively.

Time taken by C alone to do the work = C

Now,

$$\frac{10}{5x} + \frac{10}{4x} + \frac{3}{C} = 1 \dots \dots (1)$$

$$\frac{3}{5x} + \frac{3}{4x} + \frac{3}{C} = \frac{37}{100} \dots \dots (2)$$

From (1) and (2):

$$\frac{7}{5x} + \frac{7}{4x} = 1 - \frac{37}{100}$$

$$\frac{28 + 35}{20x} = \frac{63}{100}$$

$$x = 5 \text{ and } C = 30$$

Time taken by A alone to do the work = $5x = 25$ days

Time taken by B alone to do the work = $4x = 20$ days

Time taken by C alone to do the work = $C = 30$ days

Hence, the time required by the fastest worker to complete the entire work = 20 days

Question 76

Three different containers contain different quantities of a mixture of milk and water, whose measurements are 403 litres, 434 litres and 465 litres. What biggest measure must be there to measure all the different quantities exactly?

- A 70 litres
- B 51 litres
- C 31 litres
- D 41 litres

Answer: C

Explanation:

The volume of three containers are 403 litres, 434 litres and 465 litres.

The biggest measure that can measure all the different quantities exactly = HCF of 403, 434, 465.

$$403 = 13 * 31$$

$$434 = 2 * 7 * 31$$

$$465 = 3 * 5 * 31$$

$$\text{HCF} = 31$$

Hence, required measure = 31 litres

Question 77

The radius of the base of a conical tent is 5m. If the tent is 12 m high then the area of the canvas required in making the tent is

- A $300\pi m^2$
- B $60\pi m^2$
- C $90\pi m^2$
- D None of these

Answer: D

Explanation:

Radius of conical tent = $r = 5$ m

Height of conical tent = $h = 12$ m

$$\text{Lateral height} = l = \sqrt{r^2 + h^2} = \sqrt{5^2 + 12^2} = 13 \text{ m}$$

$$\text{Area of the canvas required in making the tent} = \text{Curved Surface area} = \pi r l = \pi \times 5 \times 13 = 65\pi m^2$$

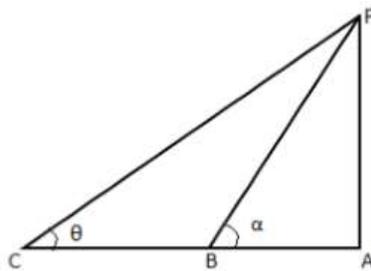
Question 78

At a point on level ground, the angle of elevation of a vertical tower is found to be such that its tangent is $\frac{5}{12}$. On walking 192 m towards the tower, the tangent of the angle of elevation is $\frac{3}{4}$. The height of the tower is

- A 96 m
- B 150 m
- C 180 m
- D 226 m

Answer: C

Explanation:



$$BC = 192 \text{ m}$$

$$\tan \theta = \frac{AP}{AB + BC}$$

$$\frac{5}{12} = \frac{AP}{AB + 192}$$

$$5AB + 960 = 12AP \dots\dots\dots (1)$$

$$\tan \alpha = \frac{AP}{AB}$$

$$\frac{3}{4} = \frac{AP}{AB}$$

$$3AB = 4AP$$

$$9AB = 12AP \dots\dots\dots (2)$$

$$\text{From (1) and (2): } 5AB + 960 = 9AB$$

$$AB = 240$$

$$\text{From equation (2): } 9 * 240 = 12AP$$

$$AP = 180 \text{ m}$$

Question 79

In a medical certificate, by mistake a candidate gave his height as 25% more than actual. In the interview panel, he clarified that his height was 5 feet 5 inches, What is the percentage correction made by the candidate from his stated height to his actual height?

- A 28.56

- B 20
- C 25
- D None of these

Answer: B

Explanation:

Let actual height = $100x$

Stated height = 125% of $100x = 125x$

Correction made by candidate from the stated height = $125x - 100x = 25x$

Required percent = $\frac{25x}{125x} \times 100 = 20\%$

Question 80

A manufacturer of a certain item can sell all he can produce at the selling price of ₹60 each. It costs him ₹40 in materials and labour to produce each item and he has overhead expenses of ₹3000 per week in order to operate that plant. The number of units he should produce and sell in order to make a profit of at least ₹1000 per week is

- A 300
- B 400
- C 250
- D 200

Answer: D

Explanation:

Let the number of units produced = x

Materials and labour cost of ' x ' units = $40x$

Total cost price = $40x + 3000$

Total selling price = $(40x + 3000) + 1000 = 60x$
 $20x = 4000$
 $x = 200$

Hence, he must produce and sell 200 units.

Reasoning and Logical ability

Instructions

Study the following information to answer these questions. A famous museum issues entry passes to all its visitors for security reasons. Visitors are allowed in batches after every one hour. In a day, there are six batches. A code is printed on entry pass which keeps on changing for every batch. Following is an illustration of pass-codes issued for each batch.: Batch I: clothes neat and clean liked are all by Batch II : by clothes neat all are and clean liked Batch III: liked by clothes clean and neat all are and so on.

Question 81

If pass-code for the third batch is 'night succeed day and hard work to for', what will be the pass-code for the sixth batch?

- A Work hard to for succeed night and day
- B Hard work for and succeed night to day
- C Work hard for to succeed night and day
- D Hard work for to succeed night and day

Answer: E

Question 82

If 'visit in zoo should the time day' is the pass-codes for the fifth batch, ' zoo we the should visit day time in' will be the pass-code for which of the following batches ?

- A II
- B IV
- C I
- D III

Answer: E

Question 83

Sanjay visited the museum in the fourth, batch and was issued a pass-code 'to fast rush avoid not do very run'. What would have been pass-code for him had he visited the museum in the second batch ?

- A Rush do not avoid to run very fast
- B Rush not do avoid to run very fast
- C Avoid mush not do to run very fast
- D Data inadequate

Answer: E

Instructions

Each of these questions consists of six statements followed by options consisting of three statements put together in a specific order. Choose the option which indicates a valid argument containing logically related statements that is, where the third statement is a conclusion drawn from the preceding two statements.

Question 84

- A. All balls are locks. B. All keys are locks.
C. All keys are balls. D. Some keys are locks.
E. Some locks are balls. F. No ball is lock.

- A ACD
B BEF
C CDE
D CEF

Answer: E

Question 85

- A. All synopses are poets. B. Some synopses are mentors.
C. Some Xs are not mentors. D. All Xs are poets.
E. All synopses are mentors. F. All synopses are X.

- A ACB
B AEC
C FEC
D DFA

Answer: E

Instructions

Study the following information to answer the questions that follow.

The premises of a bank are to be renovated. The renovation is in terms of flooring. Certain areas are to be floored either with marble or wood. All rooms/halls and pantry are rectangular. The area to be renovated comprises a hall for customer transaction measuring 23 m by 29 m, branch manager's room measuring 13 m by 17 m, a pantry measuring 14 m by 13 m, a record keeping cum server room measuring 21 m by 13 m and locker area measuring 29 m by 21 m. The total area of the bank is 2000 sq m. The cost of wooden flooring is ₹170 per sq m and the cost of marble flooring is ₹190 per sq. m. The locker area, record keeping cum server room and pantry are to be floored with marble. The branch manager's room and the hall for customer transaction are to be floored with wood. No other area is to be renovated in terms of flooring.

Question 86

What is the respective ratio of the total cost of wooden flooring to the total cost of marble flooring?

- A 1879 : 2527
- B 1887 : 2386
- C 1887 : 2527
- D 1829 : 2527

Answer: E

Question 87

If the four walls and ceiling of the branch manager's room (the height of the room is 12 m) are to be painted at the cost of ₹ 190 per sq m, how much will be the total cost of renovation of the branch manager's room including the cost of flooring?

- A ₹136800
- B ₹216660
- C ₹178790
- D None of these

Answer: E

Question 88

If the remaining area of the bank is to be carpeted at the rate of ₹ 110 per sq m, how much will be the increment in the total cost of renovation of bank premises?

- A ₹5280
- B ₹4848
- C ₹3689
- D None of these

Answer: E

Question 89

What is the percentage area of the bank that is not to be reingvated?

- A 2.2%
- B 2.4%
- C 4.2%
- D 4.4%

Answer: E

Question 90

What is the total cost of renovation of the hall for customer transaction and the locker area?

- A ₹229100
- B ₹230206
- C ₹216920
- D ₹242440

Answer: E

Instructions

These questions are based on the following letters/number/symbol arrangement. Study it carefully to answer these questions. A 8 B 6 # 7 H U % 3 \$ F V R 2 I @ ↑ 4 1 W E 9 L 5

Question 91

Which of the following is seventh to the right of fifteenth from the right end?

- A 4
 - B ↑
 - C 1
 - D W
- Answer: E

Question 92

If all the symbols are dropped from the above arrangement which of the following will be eighth from the left end?

- A F
- B R
- C U
- D 3

Answer: E

Question 93

How many such symbols are there in the above arrangement, each of which is immediately followed by a consonant and also immediately preceded by a number?

- A None
- B One
- C Two

D Three

Answer: E

Question 94

How many such numbers are there in the above arrangement each of which is immediately followed by a vowel but not immediately followed by a number?

A None

B One

C Two

D Three

Answer: E

Instructions

Each of these questions has a statement followed by two conclusions I and II. Consider the statement and the following conclusions. Decide which of the conclusions follows from the statement. Mark answer as Question 96 Statement: Until our country achieves economic equality, political freedom and democracy would be meaningless.

Conclusions:

- I. Political freedom and democracy go hand in hand.
- II. Economic equality leads to real political freedom and democracy.

A if conclusion I follows.

B if conclusion II follows.

C if either conclusion I or II follows.

D if neither conclusion I nor II follows.

Answer: E

Question 97

Statement:

Good voice is a natural gift but one has to keep practising to improve and excel well in the field of music.

Conclusions:

- I. Natural gifts need nurturing and care.
- II. Even though your voice is not good, one can keep practising.

A if conclusion I follows.

B if conclusion II follows.

- C if either conclusion I or II follows.
- D if neither conclusion I nor II follows.

Answer: E

Question 98

Statement:

Domestic demand has been increasing faster than the production of indigenous crude oil.

Conclusions:

- I. Crude oil must be imported.
- II. Domestic demand should be reduced.

- A if conclusion I follows.
- B if conclusion II follows.
- C if either conclusion I or II follows.
- D if neither conclusion I nor II follows.

Answer: E

Instructions

In each of these questions, two statements I & II are given. These may have a cause and effect relationship or may have independent causes or be the effects of independent causes. Read the statements and mark answer as

Question 99

Statement I:

British surgeons have carried out what they claim is the world's first lung transplant on a 20 year-old woman patient Becky Jones who was suffering from two fungal conditions in the lungs.

Statement II:

Lung transplant patients have never before been able to have the transplant operation while suffering from aspergillus and multiple fungal balls. Jones is in perfect health and is able to breath freely again.

- A if statement I is the cause and statement II is its effect.
- B if statement II is the cause and statement I is its effect.
- C if both the statements I and II are effects of independent causes.
- D if both the statements I and II are effects of some common cause.

Answer: E

Question 100

Statement I:

Because of very difficult questions in one of the sections, a sizeable number of students claimed to have failed to clear the cut off of Civil Services Prelim Exams.

Statement II:

Government allowed all the students to write the paper again.

- A if statement I is the cause and statement II is its effect.
- B if statement II is the cause and statement I is its effect.
- C if both the statements I and II are effects of independent causes.
- D if both the statements I and II are effects of some common cause.

Answer: E

Question 101

Statement I:

A chaotic situation has been created in Delhi Railway Station due to the excessive vehicles parked everywhere outside the station.

Statement II:

Northern Railway has floated a tender to auction parking space in all Railway stations in Delhi and NCR.

- A if statement I is the cause and statement II is its effect.
- B if statement II is the cause and statement I is its effect.
- C if both the statements I and II are effects of independent causes.
- D if both the statements I and II are effects of some common cause.

Answer: E

Instructions

For the following questions answer them individually

Question 102

Shiv visited Ramesh on vacation. In the morning, they both would go for yoga. In the evenings they would play tennis. To have more fun, they indulge only in one activity per day, i.e., either they went for yoga or played tennis each day. There were days when they were lazy and stayed home all day long. There were 24 mornings when they did nothing, 14 evenings when they stayed at home, and a total of 22 days when they did yoga or played tennis. For how many days Shiv stayed with Ramesh?

- A 32
- B 24

C 30

D None of these

Answer: E

Question 103

Number S is obtained by squaring the sum of digits of a two-digit number D. If difference between S and D is 27, then the two digit number D is.....

A 24

B 54

C 34

D 45

Answer: E

Question 104

The owner of a local jewellery store hired 3 watchmen to guard his diamonds, but a thief still got in and stole some diamonds. On the way out, the thief met each watchman, one at a time. To each he gave of the diamonds he had then, and 2 more besides. He escaped with one diamond. How many did he steal originally?

A 40

B 36

C 25

D None of these

Answer: E

Question 105

Mani, Mita, Lata and John bought a motorbike for \$60.00. Mani paid one half of the sum of the amounts paid by the other boys; Mita paid one third of the sum of the amounts paid by the other boys; and Lata paid one fourth of the sum of the amounts paid by the other boys. How much did John have to pay?

A \$15

B \$13

C \$17

D None of these

Answer: E

Instructions

Read the following Information to answer these questions.

Ankit is decorating his room and trying to arrange six paintings on the east and west walls in his room. The paintings are each multicolour representations of one of the letters of the alphabets E, H, M, O, R, T. Ankit does not want the three letters on each wall to make any common English word. Also, the colours of O and E do not look good next to each other, nor do T and O go well together.

Question 106

If Ankit puts E, H and M on the east wall, which of the following must be true ?

- A R and M cannot face each other.
- B O cannot be in the centre of the west wall.
- C E cannot be in the centre of the east wall.
- D T and M cannot face each other.

Answer: E

Question 107

If Ankit's mother is coming to visit and he decides to celebrate the visit by having his paintings spell "MOTHER", starting with the leftmost painting on the east wall and going around the room, which of the following will be false ?

- A O is opposite to E
- B H is next to E
- C T is next to O
- D T is opposite to R

Answer: E

Question 108

Which of the following is not possible?

- A T and O to be opposite to each other.
- B T, H and E to be on the same wall.
- C H, M and R to be on the same wall
- D M and O to be opposite to each other.

Answer: E

Question 109

If Ankit trades his M painting for another O painting just like the one he has now, which of the following must be false?

- A O can be on opposite walls in the middle.
- B Either R or H will be next to an O.
- C Either R or H will be next to either T or E.
- D T will be opposite to either O or E.

Answer: E

Instructions

Read the following information to answer these questions.

- (i) There is a group of seven persons A, B, C, D, E, F and G.
- (ii) There are four males, three females, two married couples and three unmarried persons in the group.
- (iii) The seven persons are seated in a row on the bench.
- (iv) Their professions are engineer, teacher, doctor, psychologist, businessman, architect and student.
- (v) B is not married and another person, the psychologist, is the most intelligent.
- (vi) The engineer is married to the teacher, who is the least intelligent of the group.
- (vii) D is an architect. He is sitting on the leftmost corner.
- (viii) The student is sitting on the rightmost corner of the bench.
- (ix) The doctor is married to C. C is the second most intelligent of the group followed by her husband.
- (x) The least intelligent of the group is sitting on the immediate right of D, followed by the most intelligent.
- (xi) There are as many more intelligent persons than the engineer as there are less intelligent.
- (xii) On the bench followed by D, there are three females sitting in succession.
- (xiii) The psychologist is a female.
- (xiv) The student is more intelligent than the architect who is more intelligent than only one person, F.
- (xv) Neither A nor G is a female.

Question 110

Who is sitting on the immediate right of D?

- A F
- B E
- C C
- D Can't say

Answer: E

Question 111

Which two are sitting together?

- A D and E
- B E and A
- C Teacher and businessman
- D Engineer and doctor

Answer: E

Question 112

The engineer is not more intelligent than

- A student.
- B architect.
- C teacher.
- D businessman.

Answer: E

Question 113

Which of these cannot be a married couple?

- A A - F
- B A - C
- C G - F
- D None of these

Answer: E

Question 114

Which of these represents the correct order of intelligence(in the decreasing sequence)?

- A EBF
- B CDF
- C ECB
- D None of these

Answer: E

Instructions

Each of these questions has an assertion (A) and a reason (R). Mark answer as

Question 115

Assertion (A): There was no country known as 'Bangladesh' when India was partitioned in 1947.

Reason (R): 'Bangladesh' was a part of Pakistan at the time of partition of India in 1947.

- A if both (A) and (R) are true and (R) is the correct explanation of (A).
- B if both (A) and (R) are true and (R) is not the correct explanation of (A).
- C if (A) is true but (R) is false.
- D if (A) is false but (R) is true.

Answer: E

Question 116

Assertion (A) : India should adopt presidential type of government.

Reason (R) : Yes, it will bring political order in the country.

- A if both (A) and (R) are true and (R) is the correct explanation of (A).
- B if both (A) and (R) are true and (R) is not the correct explanation of (A).
- C if (A) is true but (R) is false.
- D if (A) is false but (R) is true.

Answer: E

Question 117

Assertion (A): States of India should be given more autonomy/freedom.

Reason (R) : No, because it will encourage separatist tendencies.

- A if both (A) and (R) are true and (R) is the correct explanation of (A).
- B if both (A) and (R) are true and (R) is not the correct explanation of (A).
- C if (A) is true but (R) is false.
- D if (A) is false but (R) is true.

Answer: E

Question 118

Assertion (A): Indian National Flag is known as tricolor.

Reason (R): Indian National Flag has three colors.

- A if both (A) and (R) are true and (R) is the correct explanation of (A).
- B if both (A) and (R) are true and (R) is not the correct explanation of (A).
- C if (A) is true but (R) is false.

D if (A) is false but (R) is true.

Answer: E

Instructions

Each of the following questions is based on a set of propositions I-IV. Select the best answer to each question.

- I. All Ps are Q.
- II. Some Ps are not Q.
- III. Some, but not all, Ps are Q.
- IV. No Ps are Q.

Question 119

Considered only by themselves, which of the following pairs of statements might either both be true or both be false ?

- A I and II
- B II and III
- C I and III
- D I and IV

Answer: E

Question 120

Considered only by themselves, all of the following pairs of statements might both be false but could not both be true except

- A I and II.
- B I and III.
- C I and IV.
- D II and IV.

Answer: E

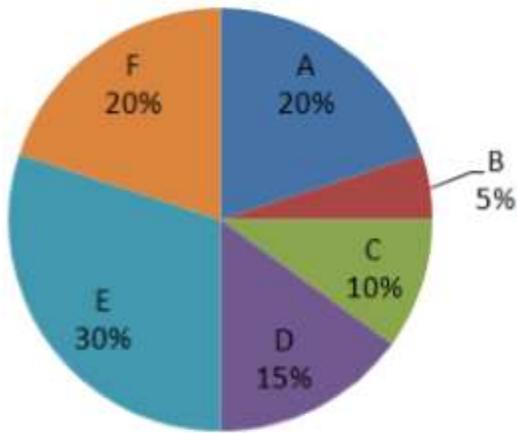
Data Interpretation

Instructions

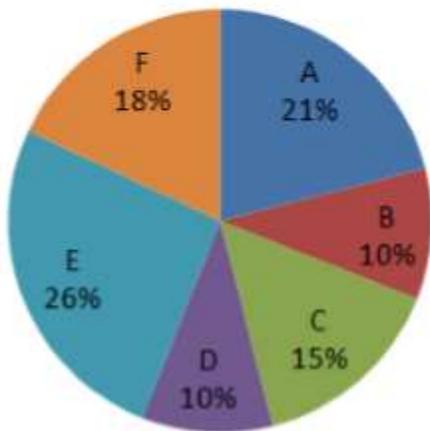
Study the following graphs to answer these questions.

Pie-charts below show the percentage of different types of vehicles A, B, C, D, E and F in state in two consecutive years (2015 and 2016).

Total number of vehicles in 2015 = 142980



Total number of vehicles in 2016 = 186400



Question 121

In the year 2015, the number of vehicles of type A and D together is what per cent of the number of vehicles type F and A together in 2016?

- A 68.83%
- B 52.13%

C 60.23%

D 70%

Answer: E

Question 122

From 2015 to 2016, in the case of which of the following types of vehicles, the change was maximum?

A A

B B

C C

D E

Answer: E

Question 123

What was the difference in the number of B type of vehicles during 2015 and 2016?

A 11321

B 11491

C 30205

D 15200

Answer: E

Question 124

If the number of D type of vehicles in 2015 was 5000, what would have been its approximate percentage in the state?

A 3.49%

B 10%

C 5.20%

D 2.56%

Answer: E

Question 125

The number of A type of vehicle in 2016 was approximately what per cent of the number of A type of vehicles in 2015?

A 137%

B 120%

C 100%

D 110%

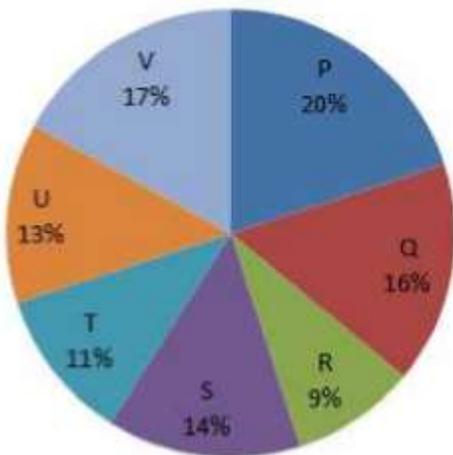
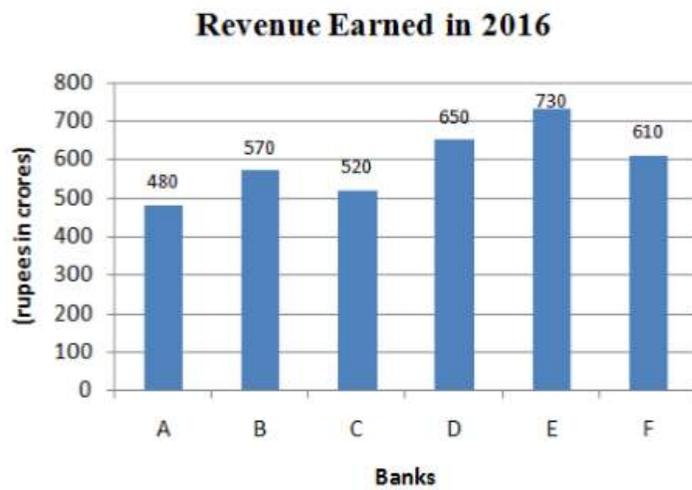
Answer: E

Instructions

Study the following graphs to answer these questions.

The bar graph below shows the revenue generated by six banks during 2016. The pie chart shows the percentage distribution of revenue earned through different modes.

Interest earned through - Business Loans (P), Home Loans (Q), Personal Loans (R), Auto Loans (S), deposits in other financial institute (T), Changes for providing services (U) and Others (V).



Question 126

The bank that earned ₹78 crore as interest from those loans in 2016 is

A A

B B

C C

D D

Answer: E

Question 127

Out of the total interest earned through business loans, bank A and C earn 45% from small scale industries (SSI) and the rest through cottage industries (CI) whereas B and D earn 55% from SSI and the rest through CI. Which bank earns the least through any of these industries?

A A, through CI

B D, through CI

C A, through SSI

D D, through SSI

Answer: E

Question 128

The Interests earned through car (a subset of Auto loan) loan by B, D, E and F are in the ratio 2 : 3 : 3 : 4 and the total interest earned by these four banks for car loan is ₹36 crore. The bank that earned interest which is 8.8% of the interest earned by it through Auto loans is

A B

B D

C E

D F

Answer: E

Question 129

Bank B and F earn interest by depositing their amounts in the financial institutes X, Y and Z. B earns interest from them in the ratio 2 : 3 : 1 and F in the ratio 4 : 3 : 3. By what percent F's earning from X is more/less than B's earning from X?

A 28.4% more

B 26.13% less

C 28.4% less

D 22.13% more

Answer: E

Question 130

By what percent is the largest amount earned by a bank through U and V together more than the least amount through U & V together by any of these banks?

- A 34.25%
- B 52.08%
- C 26.15%
- D 35.42%

Answer: E

Instructions

Study the following graph to answer these questions. The following bar graph shows the revenue generated by three realty firms A, B and C during 2012 to 2016. Each of these firms builds Low Income Group (LIG) apartments, Middle Income Group (MIG) apartments and High Income Group (HIG) apartments.



Question 131

The firms A, B and C saw rise of 15%, orpand 9% respectively in 2012 from 2011. Whose revenue was least in 2011?

- A A
- B B
- C C
- D Equal revenues

Answer: E

Question 132

In the year 2014 the firms B, A and C invested ₹2011 crore, ₹1600 crore and ₹2300 crore respectively. The difference between maximum and minimum profit per cent in 2014 is

- A 38.58
- B 53.17
- C 14.6
- D 51

Answer: E

Question 133

By what per cent should C increase its revenue in 2017 to make it 10% more than the average revenue of all the firms in 2016?

- A 10%
- B 11.86%
- C 13.47%
- D 17.34%

Answer: E

Question 134

If the profit earned by A in 2015 is of the average of the revenues of A in 2015, B in 2013 and C in 2012, the investment of A in 2015 is

- A ₹1229 crore
- B ₹893 crore
- C ₹1392 crore
- D ₹2977 crore

Answer: E

Question 135

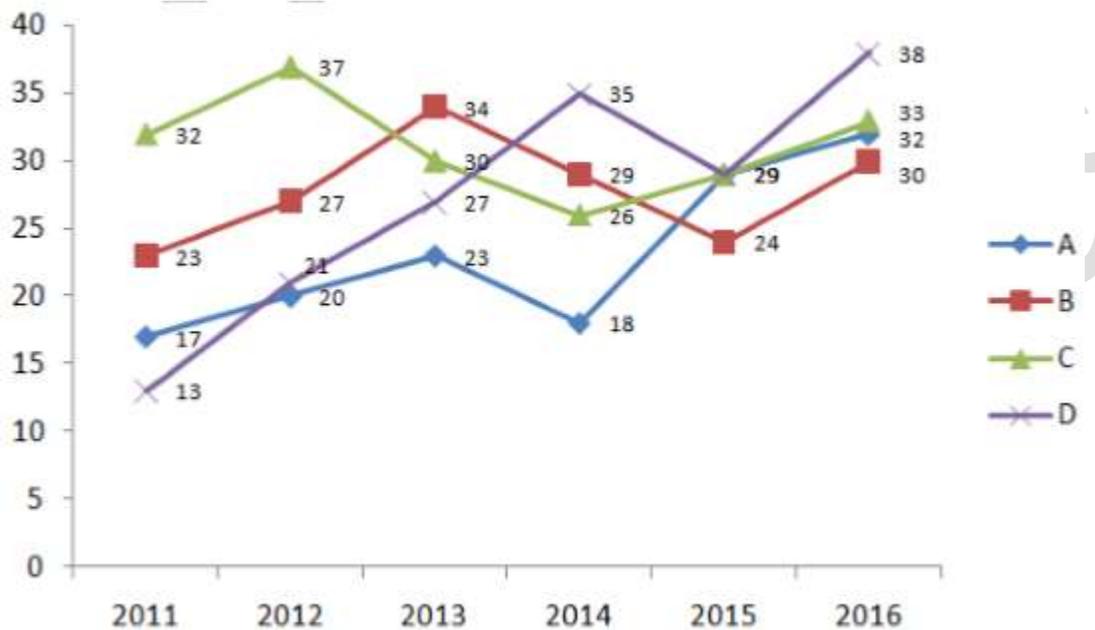
In 2013, A got 27% of its revenue through LIG housing whereas in the same year B earned 42% of its revenue through MIG housing. Both the companies spent ₹350 crore less than these revenues obtained. The difference in percentage profits thus earned by A and B is

- A 50.24%
- B 34.1%
- C 23.6%
- D 15%

Answer: E

Instructions

Study the following graph to answer these questions: The percentage profits of four leading airlines A, B, C and D for six years 18 shown in the line graph below.



Question 136

In 2011, company A invested ₹830 crore. Whereas C invested an amount which bears a ratio of 3 : 2 with that of A. The revenue generated by C in 2011 is

- A ₹1643.4 crore
- B ₹730.5 crore
- C ₹1456.7 crore
- D ₹647.5 crore

Answer: E

Question 137

The total revenue generated by all the companies in 2014 is ₹3600 crore. The revenue of C is 30% of the total revenue. The revenue generated by A, B and D in the same year is and respectively of the remaining revenue. The maximum investment in that year is made by

- A A
- B C
- C B

D D

Answer: E

Question 138

In 2015, companies B and D invested a total amount of ₹946 crore. They earned their revenues by carrying passengers and goods. The profit earned by B through passenger traffic is 43% of the total profit earned by B and the remaining part through goods traffic. The profit earned by D through goods traffic is 38% of the total profit earned by it and the remaining part of the profit is through passenger traffic. If the investments made by them are in the ratio 5 : 6, the actual profit of B through goods traffic is than the passenger traffic of D.

- A less by ₹46.44 crore.
- B more by ₹38.0808 crore.
- C less by ₹33.9528 crore.
- D more by ₹46.44 crore.

Answer: E

Question 139

In 2015 Airliner C invested: an amount of ₹630 crore, of this amount was invested by B. A invested of the amount invested by B and D invested of A in the same year. The revenue generated by A and D is than that by B and C.

- A more by ₹276.99 crore.
- B more by ₹48.09 crore.
- C less by ₹48.09 crore.
- D less by ₹276.99 crore.

Answer: E

Question 140

In 2016, investment made by ' ₹437 crore. B invests 20% more than A, C invests 20% than B and D invests 20% more than C. If the profit earned by each is the average profit per cent in 2016, who earns least revenue?

- A D
- B A
- C B
- D C

Answer: E

Instructions

Study the following graph to answer these questions. The following table shows the subscriber base of six Direct to Home (DTH)TV service companies with at to some popular channels aired by them.

Companies → Channels ↓	A	B	C	D	E	F
I	70 lakh	1.25 crore	95 lakh	1.57 crore	57 lakh	1.86 crore
II	85 lakh	1.38 crore	79 lakh	1.15 crore	39 lakh	67 lakh
III	1.20 crore	93 lakh	1.36 crore	87 lakh	1.49 crore	84 lakh
IV	1.75 crore	28 lakh	89 lakh	71 lakh	1.23 crore	2.35 crore
V	2.13 croree	72 lakh	1.89 crore	62 lakh	86 lakh	99 lakh

Question 141

Which of the companies shows the maximum percentage difference in the viewership of its channels I and III with respect to channel I?

- A E
- B B
- C A
- D F

Answer: E

Question 142

Two-fifth of the viewers of channel V of a shifted to channel V of B and E; of these to B and the remaining to E. One-fourth of viewer of channel V of C have now started watching channel V of D and F; of it D and the rest F. In the new distribution, which of the companies has maximum viewers for channel V?

- A B
- B C
- C F
- D A

Answer: E

Question 143

The daily revenue generated through advertismnt by chatinal III of companies A, C and F is in the same proportion as the ratio of their viewership. The total amount collected in a day by them is ₹340 crore. The revenue generated bye channel II of D which is 8% more than that of channel III of C is

- A ₹11.75 crore.
- B ₹10.88 crore.

- C ₹12.03 crore.
- D ₹146.88 crore.

Answer: E

Question 144

Informative programme of channel II of B is watched by 27% of viewers of this channel, rest watch entertainment programmes. If the viewers of informative programmes of channel III of C is less by 35% of viewers of entertainment programmes of channel II of B, then the number of viewers of entertainment programmes of channel III of C is than that of channel II of B.

- A 3022100 more
- B 3325900 more
- C 352900 less
- D 3022100 less

Answer: E

Question 145

For paying the fees of the staff and other expenses in a day, channel IV of company A has to pay 14% of its revenue collected of that day. This amount is ₹2500000 more than for channel V of C. The revenue generated per day by channel I of F is twice its viewership figure and is less by 10% than channel IV of A. The amount spent by channel V of C in a day is

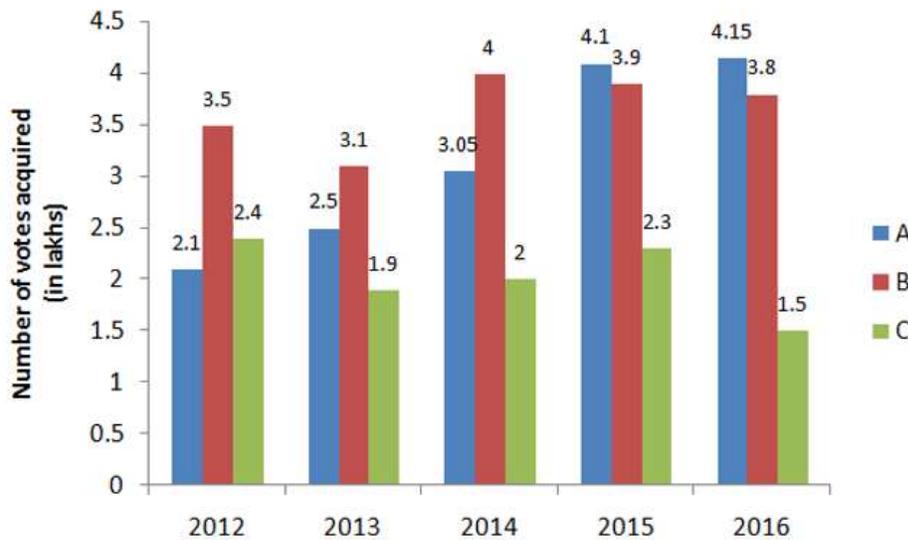
- A ₹2819600
- B ₹5319000
- C ₹4836000
- D ₹7819600

Answer: E

Instructions

Study the following graph for answer these questions.

The bar graph shows the performance of 3 political parties A, B and C in terms of votes acquired in the elections in a constituency during 2012- 2016



Question 146

By what per cent is the average number of votes acquired by B more/less than that of A during 2012-2016 ?

- A 13% more
- B 13% less
- C 15% less
- D 15% more

Answer: E

Question 147

How many more votes are required by C in 2017 than in 2016 to make the ratio of votes with A, 3:2, keeping the votes of A same as in 2016 ?

- A 12.45 lakh
- B 4.725 lakh
- C 6.225 lakh
- D 1.27 lakh

Answer: E

Question 148

By what per cent should votes of B increase/decrease in 2016 to equal its average during the previous 4 years ?

- A Increase by 4.6%

- B Increase by 5.8%
- C Decrease by 5.8%
- D Decrease by 4.6%

Answer: E

Question 149

In 2015, by what per cent should the votes of C increase to exceed the votes of B in the same year by 12% ?

- A 51%
- B 33.9%
- C 89.9%
- D 53%

Answer: E

Question 150

What per cent votes were acquired by C with respect to the total votes acquired by all the three parties in 2013?

- A 25.33%
- B 41.33%
- C 33.33%
- D 61.2%

Answer: E

Instructions

Each of these questions consists of a problem followed by two statements numbered as I and II. Decide whether the data in the statements are sufficient to answer the question. Mark answer as

Question 151

A citrus fruit grower receives ₹980 for each crate of lemon shipped and ₹1500 for each crate of oranges shipped. How many crates of oranges did the grower ship last week?

- I. Last week the number of crates of lemon that the grower shipped was 20 more than twice the number of crates of orange shipped.
 - II. Last week the grower received a total of ₹387000 from the crates of lemon and oranges shipped.
- A if statement I alone is sufficient, but statement II alone is not sufficient to answer the question.

- B if statement II alone is sufficient, but statement I alone is not sufficient to answer the question.
- C if both statements taken together are sufficient to answer the question, but neither statement alone is sufficient.
- D if statements I and II together are not sufficient, and additional. data is needed to answer the question.

Answer: E

Question 152

If a total of 84 students are enrolled in two sections of a calculus course, how many of the 84 students are female?

- I. $\frac{2}{3}$ of the students in Section 1 are female.
 - II. $\frac{1}{2}$ of the students in Section 2 are female.
- A if statement I alone is sufficient, but statement II alone is not sufficient to answer the question.
 - B if statement II alone is sufficient, but statement I alone is not sufficient to answer the question.
 - C if both statements taken together are sufficient to answer the question, but neither statement alone is sufficient.
 - D if statements I and II together are not sufficient, and additional. data is needed to answer the question.

Answer: E

Question 153

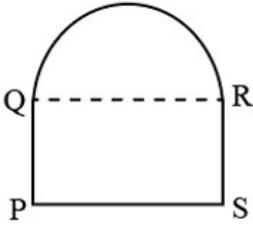
Company R's annual profit has increased by a certain amount each calendar year since 2009. What was Company R's annual profit in 2015? I. In 2009, Company R's annual profit was ₹21200000; in 2013, Company R's annual profit was ₹24200000. II. Company R's annual profit has increased by ₹750000 each year since 2009.

- A if statement I alone is sufficient, but statement II alone is not sufficient to answer the question.
- B if statement II alone is sufficient, but statement I alone is not sufficient to answer the question.
- C if both statements taken together are sufficient to answer the question, but neither statement alone is sufficient.
- D if statements I and II together are not sufficient, and additional. data is needed to answer the question.

Answer: E

Question 154

The figure below shows the shape of a flower bed. If arc QR is a semicircle and PQRS a rectangle with $QR > RS$, what is the perimeter of the flower bed?



- I. The perimeter of rectangle
- II. Each diagonal of rectangle PQRS is 10 feet long.

- A if statement I alone is sufficient, but statement II alone is not sufficient to answer the question.
- B if statement II alone is sufficient, but statement I alone is not sufficient to answer the question.
- C if both statements taken together are sufficient to answer the question, but neither statement alone is sufficient.
- D if statements I and II together are not sufficient, and additional. data is needed to answer the question.

Answer: E

Question 155

Committee X and Committee Y, which have no common members, will combine to form Committee Z. Does Committee X have more members than Committee Y? I. The average (arithmetic mean) age of the members of Committee X is 25.7 years and the average age of the members of Committee Y is 29.3 years. II. The average (arithmetic mean) age of the members of Committee Z will be 26.6 years.

- A if statement I alone is sufficient, but statement II alone is not sufficient to answer the question.
- B if statement II alone is sufficient, but statement I alone is not sufficient to answer the question.
- C if both statements taken together are sufficient to answer the question, but neither statement alone is sufficient.
- D if statements I and II together are not sufficient, and additional. data is needed to answer the question.

Answer: E

Instructions

In each of these questions, two quantities A and B are given: Compare the two quantities and mark answer as

Question 156

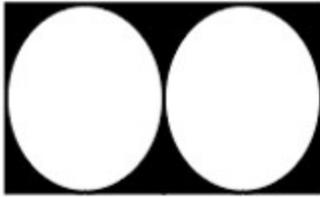
The measures of the angles in triangle P are in the ratio of 2:4:6 The measures of the angles in triangle Q are in the ratio of 1:2:6. A: The measurement of the largest angle in triangle P B: The measurement of the largest angle in triangle Q

- A if quantity A is greater than quantity B
- B if quantity B is greater than quantity A.
- C if quantities A and B are equal.
- D if comparison cannot be made.

Answer: E

Question 157

Two circles with the same radius are blocked inside a rectangle.



- A: The area of the shaded region.
- B: The area of one and a half circles.
- A if quantity A is greater than quantity B
- B if quantity B is greater than quantity A.
- C if quantities A and B are equal.
- D if comparison cannot be made.

Answer: E

Question 158

Aditi bought X sell colored pencils and Y red ones. Ajitha bought 15 pencils fewer than two third Of the total number of Pencils that Aditi bought.

A: The number of pencils that Ajitha bought

B: $\frac{2X-45+2Y}{3}$

- A if quantity A is greater than quantity B
- B if quantity B is greater than quantity A.
- C if quantities A and B are equal.
- D if comparison cannot be made. Answer: E

Question 159

The concentration of alcohol in Tequila is half of the concentration in Vodka. A cocktail consists of Tequila, Vodka and water only. A: The amount of alcohol in a litre of cocktail, which consists of 50%

Tequila and 30% Vodka B: The amount of alcohol in a litre of cocktail, which consists of 30% Tequila and 50% Vodka

- A if quantity A is greater than quantity B
- B if quantity B is greater than quantity A.
- C if quantities A and B are equal.
- D if comparison cannot be made.

Answer: E

Question 160

A box of cards contains 2 blue cards and 2 red ones

A: The minimum number of cards that are needed to be taken out of the box: in order to get two cards with the same colour.

B: The minimum number of cards that are needed to be taken out of the box in order to get two cards with different colours

- A if quantity A is greater than quantity B
- B if quantity B is greater than quantity A.
- C if quantities A and B are equal.
- D if comparison cannot be made.

Answer: E