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## MAT 2013

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## Language Comprehension

Instructions
Each question has a group of sentences marked A, B, C, D and E. Arrange these to form a logical sentences.
Question 1
A. Environment Education Unit of center for Science.
B. Environment has always been working towards provoiding easy to understand reading material.
C. Their new publication on this subject is an attempt to lend teachers a helping hand.
D. It unfolds in two sections first, Climate Change, how to make sense of it all and second, Natural Resources, how to share and care.
E. However, they are introduced to students not as a paragraph to memorise but as an activity to do.

A ACEBD

B DBCAE

C ABCDE

D BECAD
Answer: C


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Question 2
A. A famous Japanese rock garden at Ryoan ji in North-West Kyoto, Japan.
B. The rocks of various sizes are arranged on small white pebbles in five groups, each comprising, five, two, three, two and three rocks.
C. The garden is 30 m long from East to West and 10 m from North to South.
D. The garden contains 15 rocks arranged on the surface of white pebbles in such a manner that visitors can see only 14 of them at once from whichever angle the garden is viewed.
E. There are no trees, just around 15 irregularly shaped rocks of varying sizes, some around by rocks, arranged in a bad of white grancelsard that is ranked everyday.

A ACEBD

B CAEDB

C DEABC

D BADEC
Answer: B

## Question 3


A. When they gathered together, the Buddha was completely silent and some speculated that perhaps the Buddha was tired or ill.
B. It is said that Gautam Buddha gathered his disciples one day for a Dharma talk.
C. One of Buddha's disciples, Mahakasyapa, silently gazed at the flower and broke into a broad smile.
D. The orgins of Zen Buddhism are ascribed to the flower Sermon, the earliest source for which comes from the 14th century.
E. The Buddha silently held up and twirled a flower and twinkled his eyes, several of his disciples tried to interpret what this meant though none of them were correct.

A EBDAC

B DBAEC

C BCDEA
D CADBE


Answer: C

## Instructions

Choose the best option for the blank.
Question 4
Ironcally of the normally $\qquad$ . speaker bacame very shy and $\qquad$ when confronted with the $\qquad$ afraid stairs of her eager audience.

A Quit, passenger

B Gerrulous, reticent

C Disappeancer, passant
D Humble super, ciliour
Answer: D

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## Question 5

Although the whole team acted in unison, each number $\qquad$ for a/an the


A Reliable, source

B Responsible, element
C Appointed, article

D Gravel, felory
Answer: C

## Question 6

The studies of the children were $\qquad$ and $\qquad$ was the result of it

A Neglected, ignorance

B Interrupted, incongruence

C Officiated, alienation

D Instructed, genius
Answer: A

## Question 7

The $\qquad$ correction is a good $\qquad$ to add the blenechip sum phasma certificates stock to your porlfolio

A Organs, opportunity

B Undergoing, change

C Lancing, attempt
D Ironside, time Answer: A


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Instructions
Rearrange the jumbled alphabets in the following four options and find odd word among them.
Question 8

A AZRBE

B OESRH

C LAMEC

D NBOWR
Answer: D

Question 9

A RYESGE

B TRESTAO

C ERTHCAE

D NEOV
Answer: C

Question 10

A YITOHSR

B GOIYLBO

C ITRCECK

D PGYHOEGRA
Answer: C

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 11
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, Can we in all honesty aspire to be a genuine, superpower?

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 superpower

Answer: C

## Question 12

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 tht outcome
D Be optimistic, confident, hard-working and self-introspective
Answer: B

## Question 13

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 designed by F Matthias Alexander for his self treatment
B Alexander technique therapy is practised in one to one sessions under the guidance of an expert
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 helpfultin treating Pains, lung problems, spinal problems and speech disorders
Answer: D


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## Question 14

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 globalisation

C Global markets need international guidelines for the smooth running of global trade
D Every country tries to protect its own financial interests
Answer: C

Instructions
Identify the best way of writing the sentence in the context of the correct usage of standard written English.
Question 15

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: C

## Question 16

A New words could be used, $1 f$ 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: B

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## Question 17

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 a letter now

D Neither does he come nor does he write a letter now
Answer: B

## Instructions



In each of these questions, a jumbled word is given. Rearrange the jumbled word and select the word which is opposite in meaning to the rearranged word

## Question 18

DORGSEIAN

A Beautiful

B Future

C Chaotic

D Bright
Answer: C

Question 19
THYEALH

A Coward
B Empty


## Question 20 <br> ERNUESGO



A False
B Dark
C Miser
D Small
Answer: C

## Instructions

Study the passages below and answer the questions.
Passage I


A US economy firmly on the path of revival and robust growth would be of great significance for the world economy and Indian exporters should be looking at a sustained rise in demand in the US. The US economy, as per recent-released figures has already added some 171000 jobs in the month prior. This is shows that the US has made real progress in rejuvenating the economy. Of course, we are quite happy to see the revival of job growth in the US, especially because the Indian industry has had a not so minor role in this development. Indian companies have helped add some 20000 new jobs to the US economy in 2012-13 itself. Future Indian investment directed towards the US is likely to add to this number. Most of these new jobs are actually being created by the Indian Information Technology (IT) sector, which is mistakenly derided as a 'job stealer'by the US. However, empirical evidence clearly suggests that 'outsourcing Improves corporate bottom-lines in the US, which in turn allows corporates to expand, thereby leading to the generation of new jobs. The current rhetoric on outsourcing is overblown and counterproductive. There is after all no real use in creating impediments for a sector that has organically linked our two economies and is helping generate net employment in both lands. A growing India-US economic relationship is necessarily IT enabled.

## Question 21

According to the passage, to revive the US economy, Indian industry

A did not have much contribution
B had, in fact, no role to play


C had a significant contribution
D could not do much about it
Answer: C


## Question 22

As per the passage, recent propaganda against outsourcing of jobs in the US is

A quite genuine and should have been more loud
B
fairly logical and justified
C not quite correct

Answer: C

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## Question 23

Which of the following statement(s) is true as per the information contained in the passage?
A. Indian industry is capable of helping the US economy in the near future,
B. Indian IT sector has a major role in creating new jobs in the US.
C. Revival of the US economy would help Indian exporters a lot.

A Only A
B B and C

C A, B and C

D A and C
Answer: C

## Question 24

Indian IT sector has created jobs in

the US alone
B Both India and the US


C Only India
D None of the above
Answer: B

## Instructions



Study the passages below and answer the questions.
Passage II
The Supreme Court wants to find out whether additional taxes on diesel cars can curb air pollution. But evidence from Europe, where around half of the automobiles are diesel-based and the air is far cleaner than in our cities, demonstrates that diesel cars cannot by themselves be blamed for deterioration in air quality and evidence from the Central Pollution Control Board clearly shows that industries. road dust from construction and geography account for most of the particulate matter emission in cites. Power plants and diesel generators also increase, pollution and the bulk of the transport emissions are on account of heavy commercial vehicles that use much older technologies than new diesel cars. Undoubtedly. adulteration of diesel with subsidised to the problem. So. a tax on new diesel cars is too blunt an instrument which certainly will not yield clean aidt fact skew the market towards used rather than new cars which would not only hurt the automobile industry but also further air pollution. Cleaning the air in our cities would require concerted efforts by authorities including of diesel prices. ending sale of subsidised kerosene and supply of better quality fuel. It would also require a significant improvement in public transport systems and better enforcement of pollution control norms. The solution therefore is not so much in constraining the industry with new taxes, but in pushing through positive measures that enable their livelihoods while also breathing clean air.

## Question 25

As per the passage, which of the following meaaure(s) is considered necessary to reduce pollution in our cities?

A Introducing better public transport systems
B Stopping availability of cheap kerosene in the market


Answer: C

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Question 26
What is the meaning of the word 'skew used in the passage?

A Change

B Distort

C Divert

D Introduce
Answer: C

Question 27
According to the passage, diesel cars are

A solely responsible for airpollution in our cities
B not at alt blameworthy for air pollution
C not much responsible for polluting air

D None of the above
Answer: C

## Question 28

As per information given in the passage. which of the following statements is not true?
A. Government needs to relax pollution control norms.
B. Commercial vehicles increase pollution substantially.
C. In Europe most automobiles are not diesel-based.

A A and C

B Only B

C Only C

D A and B
Answer: A

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Instructions
Study the passages below and answer the questions.
Passage III
The Election Commission (EC) has proposed an amendment to the 1950.Representation of the people Act (RPA) to ban all opinion polls once the election process is under way. which could be months before actual elections are held. Following the passing of the 2009 RPA
(Second Amendment) Bill, a ban on exit polls conducted while the polling process is going on is already in place. While there may be a case for banning opinion polls or their republication while polling is actually underway and poll campaigning has ceased why all opinion polls should be banned is unclear. Nevertheless major political parties argued for this at last year s consultations on electoral reform, and the EC appears to have succumbed. Proponents of the ban argue, contradictorily, that, opinion polls tend to influence voters and voting patterns besides creating confusion galore. also drawn attention to complaints about political parties funding some opinion polls. But such a draconiah ban on all opinion polls is tantamount to muzzling freedom of expression• as well as the right of the media and research organisations to undertake such pre-poll exercises. These. after all, are an important metric to assess the people 's mood and their aspirations. and their perception of political parties. Multiple opinion polls competing with each other restrict the possibility o manipulation by anyone pre-poll survey. Finally, the perception that voters are gullible enough to be duped by by opinion polls, is an affront to their intelligence and political sense.

## Question 29

According to the passage, presently, conducting exit polls

A during the election process is not permitted
B during polling process is banned
C at the time of polling will be banned
D None of the above
Answer: B

## Question 30

As per the passage, which of the following statement(s) is true?
A. It is incorrect to presume that Indian voters can be influenced by opinion polls.
B. Major political parties of India had agreed to ban opinion polls.
C. We should not doubt the intelligence of Indian voters.

A Only A

B A and B
C A and C

D B and C
Answer: A

## Question 31



According to the passage, some political parties

A keep themselves away from opinion polls

B try to bribe the opinion polls for favours
C do not want to get involved with opinion polls
D None of the above
Answer: D

## Question 32



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As per the passage, when there are a number of opinion polls conducted at the same time, it is

A quite easy to manipulate anyone pre-poll survey
B not easy to manipulate any one pre-poll survey
C quite possible to manipulate anyone pre-poll survey
D None of the above
Answer: C

## Instructions

Study the passages below and answer the questions.
Passage IV
In the decade to come, the United States, Europe, and Japan are likely to grow slowly. Their sluggishness, however, will look less worrisome compared with the even bigger story in the global economy, which will be the three to four percent slowdown in China, which is already under way, with a possibly deeper slowdown in store as the economy continues to mature. China's population is simply too big and aging too quickly for its economy to continue growing as rapidly as it has. With over 50 percent of its people now living in cities, China is nearing what economists call "the Lewis turning point": the point at which a country's surplus labor from rural areas has been largely exhausted. This is the result of both heavy migration to citiesover the past two decades and the shrinking work force that the one-child policy has produced. As growth slows in China and in the advanced industrial world, these countries will buy less from their export-driven counterparts, such as Brazil, Malaysia, Mexico, Russia, and Taiwan. During the boom of the last decade, the average trade balance in emerging market countries that have managed to sustain a five percent growth rate for a full decade, since 1930, 52 percent were democracies and 48 percent were authoritarian. Atleast over the short to medium term, what matters is not the type of political system a country has, but rather the presence of leaders who understand and can implement the reforms required for growth.

## Question 33

According to passage, which of the following statements is not true?
A. During the past 10 yr or so, only democratic countries have shown a sustained growth.
B. During the $\mathbf{1 0} \mathbf{y r}$ or so, Japan is likely to show a slow rate of growth.
C. Leaders of a country can bring about changes which promote growth.

A only B

B only A
C A and C

D B and C


Answer: C

## Question 34



As per the passage, in our immediate future, which of the following factors will cause more anxiety?
A China's unprecedented growth
B European countries 'slow growth
C China's slowgrowth

D None of the above
Answer:

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## Question 35

Which of the following is a reason for China's slow growth rate?


A Considerable migration of labour from rural to urban, areas has resulted in reduction of workforce availability
B Family planning measures adopted by Chinese families

C China's population is aging rather quickly

D All of the above
Answer: D

## Question 36

In the years to come, it appears that China's economy will


A grow at a rapid pace

B grow at a very high rate
C show a marked slowdown

D None of the above
Answer: C

## Instructions

Study the passages below and answer the questions.
Passage V
The larger global geo-economic backdrop to the next decade (2013-23) is the likely emergence of as the world's largest single-state economy overtaking the USA towards the end of this period. The 'critical question will be whether China under a new leadership will subscribe to the existing global status quo or adopt a revisionist approach - and seek to alter the contours of i global governance and related protocols to its own template. Within Asia, the texture and orientation of the triangular and bilateral relationship that will emerge between China, Japan and India over the next decade against the backdrop of the US in relative economic decline will exude many contradictory compulsions - the leitmotif of the 'contra-polar'world order. While China may be the world's most prosperous state in GDP terms, it will still rank tow in per capita income and the US is likely to retain its military supremacy for atleast two decades. . It is instructive that India is also likely to join the ranks of the world 's three largest single-state economies by 2030 with an estimated GDP of the US - $\$ 6.68$ trillion - though it will be a distant subaltern when 'compared to China - $\$ 25.6$ trn and USA - $\$ 22.8$ trn. Will China's intent to remain Asia's unchallenged hegemony impact Indian interests? The Chinese track-record over the last two decades (since the end of the Cold Warin 1991) has been chequered and many of its initiatives have been either directly adversarial or inimical to Indian interests. The most disturbing development has been the covert nuclear weapon and missile support that China has provided to Pakistan. The Mumbai carnage of November 2008 is a case in point. But much greater pro-active perspicacity is called for than what Delhi has exuded to date.

## Question 37

As per information given in the passage, China has

A been openly providing nuclear arms support, to Pakistan
B not been giving any support to Pakistan in supply of nuclear weapons
C been quickly supporting Pakistan in supplying nuclear weapons

D None of these is applicable
Answer: C


## Question 38

According to the passage, which of the following statements is not true?

A It is not quite clear how China will conduct the new world order when it becomes a global power economically
B When China would emerge as the biggesteconomy, there would not be much change in relationships between Asian countries

C The new leadership in China may change its relations with other nations of the world

D All of the above
Answer: D

Question 39
The word `leitmotif' used in the passage means

A message
B theme

C method
D significance
Answer: B

## Question 40

As per information given in the passage, after a few years when China emerges as a world economic power, India

A need not change its stance and continue with the existing policy towards China
B should keep China's policy towards India in view and adopt a clear cut stance towards China

C would have to face the consequences of China's stance towards India

D need not worry much about China's policies towards India
Answer: B

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 Mathematical Skills
## Instructions

For the following questions answer them individually

## Question 41

If 15 men, 24 women and 36 boys can do a piece of work in 12 days, working 8 h per day, how many men must be associated with 12 women and 6 boys to do another piece of work $2{ }_{4}^{1}$ times as large in 30 days working 6 h per day?

A 6

B 4

C 8
D 10
Answer: C

## Explanation:

If M1 men can do W1 work in D1 days working H1 hours per day and M2 men can do W2 work in D2 days working H2 hours per day
(where all men work at the same rate), then

M1 D1 H1 / W1 = M2 D2 H2 /W2


So,given $15 \mathrm{M}=24 \mathrm{~W}=36 \mathrm{~B}$. $\qquad$
where $\mathrm{M}, \mathrm{W}, \mathrm{B}$ are work done by one man, one woman and one boy respectively in one day.

Also given $\mathrm{W} 2=9 / 4 \mathrm{~W} 1 \quad$..(3)
for W2 let $x \operatorname{Men}(M)$ are required.
So total Human-power(for W2) $=x M+12 W+6 B$
now using relations from (2) Human-power(for $W 2)=x M+15 / 2 M+15 / 6 M=(10+x) M$
So replacing all the values in eqn (1) and (3), we get
$=>15 \mathrm{M} * 12$ days $* 8 \mathrm{Hrs} / \mathrm{W} 1=(10+x) \mathrm{M} * 30$ days* $6 \mathrm{Hrs} / \mathrm{W} 2$
=> $15 \mathrm{M} * 12$ days* $8 \mathrm{Hrs} / \mathrm{W} 1=(10+x) \mathrm{M} * 30$ days* $6 \mathrm{Hrs} /(9 / 4 \mathrm{~W} 1)$
=> $x=8$ Men

## Question 42

The horizental 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 $30^{\circ}$. If the height of the taller tower is 150 m , the height of the shorter one is

A 100 m

B 106 m

C 116 m

D None of these

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Answer: C

Explanation:
In triangle,
$\tan 30=150-\mathrm{h} / 60$
$1 / \sqrt{ } 3=150-\mathrm{h} / 60$
$20 \sqrt{3}=150-h$
$h=150-20 \sqrt{ } 3$
$\mathrm{h}=150-34.64$

$h=115.36 \mathrm{~m}$ (nearly equal to 116 m )

## Question 43

A boat travels upstream from $B$ to $A$ and downstream from $A$ to $B$ in 3 h . If the speed of the boat in still water is $9 \mathrm{~km} / \mathrm{h}$ and the speed of the current is $3 \mathrm{~km} / \mathrm{h}$, what is the distance between $A$ and $B$ ?

A 6 km
B 4 km

C 8 km

D 12 km

## Explanation:

Speed of the boat upstream $=9-3=6 \mathrm{~km} / \mathrm{hr}$
Speed of the boat downstream=9+3=12 km/hr
Let the distance between $A$ and $B$ be $x$ kms.
So,time taken to travel x km upstream by boat= $\mathrm{x} / 6 \mathrm{hrs}$.
And time taken to travel $x$ kms downstream $=x / 12 \mathrm{hrs}$.
According to the question ,
$x / 6+x / 12=3$
$x[1 / 6+1 / 12]=3$
$x=4 \times 3=12$
So, distance between $A$ and $B$ is 12 kms .

## Question 44

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 fixed unit be $x$ and cost of each unit be $y$
$540 y+x=1800$
$620 y+x=2040$

Solving both the equation we will have $y=3$

Now placing y value in any of the equation give
$x=180$ (fixed value)

So now we will have
Bill $=180+(500 * 3)$
$=1680$

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## Question 45

A booster pump can be used for filling as-well-as for emptying a tank. The capacity of the tank to 2400 m 3 . The emptying capacity of the tank i8 10 m 3 per min higher than its filling capacity and the pump needs 8 min lesser to empty the tank than it needs to fill it.
What is the filling capacity of the pump?


A $60 \mathrm{~m}^{3} / \mathrm{min}$

B $50 \mathrm{~m}^{3} / \mathrm{min}$

C $72 \mathrm{~m}^{3} / \mathrm{min}$
D None of these
Answer: B

## Explanation:

Let, the filling capacity of the pump be $\times \mathrm{m}^{\wedge} 3 / \mathrm{min}$
Then, emptying capacity of the pump $=(x+10) \mathrm{m}^{\wedge} 3 / \mathrm{min}$.
So,2400/x-2400/(x+10) $=8$
On solving, we get
$\mathrm{x}=50 \mathrm{~m}^{3} / \mathrm{min}$
Question 46
A and B walk around a circular track. They start at 8 am from the same point in the opposite directions. $A$ and $B$ walk at a speed of 2 rounds per hour and 3 rounds perhour respectively. How many times shall they cross each other before 9:30 am?

A 6

B 5

C 7

D 8
Answer: C
Explanation:
A does 1 round per 30 minutes
$B$ does 1 round per 20 minutes
How many minutes would it take making a round together:
$x / 30+x / 20=1$
$2 x+3 x=60$
$5 \mathrm{x}=60$
$x=12$
They meet every 12 minutes.
How many 12 minute periods are there from 8:00 am to 9:30 am
90 minutes, so
90/12
Answer is 7 times they cross each other.

## Question 47

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

A ₹ 578.50

₹ 474

C ₹ 684

D ₹ 894
Answer: B

Explanation:
Area of 4 walls $=2(1+b) h=2(10+7) \times 5$
$=170 \mathrm{sq} \mathrm{m}$
Area of 2 doors and 3 windows $=2(1 \times 3)+(2 \times 1.5)+2(1 \times 1.5)$
$=12 \mathrm{sq} \mathrm{m}$
Area to be planted $=170-12=158 \mathrm{sq} \mathrm{m}$
Cost of painting $=$ Rs. $158 \times 3=$ Rs. 474

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Question 48
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 $\quad{ }_{21}^{11}$

B $\quad \begin{array}{r}10 \\ \hline\end{array}$
C $\quad{ }_{21}^{12}$

D $\quad \begin{array}{r}9 \\ 21\end{array}$
Answer: A

## Explanation:

Bag1 = 3 back, 4 white balls
Bag2 $=4$ black, 3 white balls
Probability of selecting bag $1=2 / 6=1 / 3$
Probability of selecting bag 2 $=1-1 / 3=2 / 3$
Probability of choosing a black ball from bag $1=3 / 7$
Probability of choosing a black ball from bag $2=4 / 7$


11
$=\quad 21$

## Question 49

A runs $1{ }_{3}^{2}$ times as fast as $B$. If $A$ gives $B$ a start of 380 in. 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: B

## Explanation:

Ratio of the speeds of $A$ and $B=5 / 3: 1=5: 3$
Thus, in race of $5 \mathrm{~m}, \mathrm{~A}$ gains 2 m over $B$.
2 m are gained by $A$ in a race of 5 m .
80 m will be gained by A in race of $(5 / 2 * 80)$ :
=200 meters
So,
Winning post is 200 m away from the starting point.

## Question 50

A cistern, open at the top. is to be lined with sheet lead which weights $27 \mathrm{~kg} / \mathrm{m}^{3}{ }^{3 \prime}$. The cistern is 4.5 m long and 3 m wide and holds 5 ( $m^{3}$. The weight of lead required is

A $\quad 1764.60 \mathrm{~kg}$

B $\quad 1864.62 \mathrm{~kg}$
C $\quad 1660.62 \mathrm{~kg}$
D 1860.62 kg
Answer: B

## Explanation:

Let the depth of the cistern be $h$ meters
Then $4.5 \times 3 \times h=50$
So, $\mathrm{h}=50 / 13.5$
$h=100 / 27$
Area of sheet required $=\mathrm{lb}+2(\mathrm{bh}+\mathrm{lh})$
$=1 b+2 h(1+b)$
$=[4.5 \times 3+2 \times 100 / 27(4.5+3)] \mathrm{sq} \mathrm{m}$
$=(13.5+200 / 27 \times 7.5)$
$=(27 / 2+500 / 9)$
$=1243 / 18$
Therefore weight of lead $=(27 \times 1243 / 18)$
$=3729 / 2 \mathrm{~kg}$
$=1864.5$

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## Question 51

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: D

## Explanation:

Given radius of the cylinder, $r=12 \mathrm{~cm}$


It is also given that a spherical iron ball is dropped into the cylinder and the water levelraised by 6.75 cm
Hence volume of water displaced = volume of the iron ball
Height of the raised water level, $h=6.75 \mathrm{~m}$
Volume of water displaced $=\pi r^{\wedge} 2 h$
$=\pi \times 12 \times 12 \times 6.75 \mathrm{~cm}^{\wedge} 3$
So, Volume of iron ball $=\pi \times 12 \times 12 \times 6.75 \mathrm{~cm}^{\wedge} 3 \ldots$ (1)
But, volume of iron ball $=4 / 3 \pi r^{\wedge} 3$
From (1) and (2) we get
$4 / 3 \pi r^{\wedge} 3=\pi \times 12 \times 12 \times 6.75$
On solving, we get

$r^{\wedge} 3=729$
$r^{\wedge} 3=3^{\wedge} 6$
Therefore, $\mathrm{r}^{\prime}=9$
Radius of the iron ball is 9 cm

## Question 52

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 $88.40 \%$

## Explanation:

Let the selling price of the article $=$ Rs. 100
Therefore,
Profit = Rs. 26
So, Cost price of the article $=$ S.P. - Profit
$=100-26=$ Rs. 74
So,
Required \% = $(34 \times 74) / 100$
= 25.16\%

## Question 53



The present worth of a bill due 7 months hence is $\mathbf{₹} 1200$. If the bill were due at the end of $2 \underset{2}{2} \mathbf{~ y r}$, Its present worth would be $\mathbf{Z}$ ₹ 1016 . What is the rate per cent of the bill?

A $8 \%$
B $10 \%$

C $16 \%$

D 18\%
Answer: B

Explanation:
Since,
S.I. $=$ Principal $*$ Rate $*$ Time/100

Therefore, $1200+1200 * 7 * r / 12 * 100=$ Amount (A)
$1200+7 \mathrm{r}=\mathrm{A}$ $\qquad$
and $1016+1016 * 5 * r / 2 * 100=A$
Therefore, $1016+25.4 \mathrm{r}=\mathrm{A} .$. (ii)
$1016+25.4 r=1200+7 r$
So,
$25.4 \mathrm{r}-7 \mathrm{r}=1200-1016$
$18.4 \mathrm{r}=184$
$r=184 / 18.4$
= $10 \%$ per annum

## Free Gk Tests

## Question 54

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 yr

B 15 yr
C 17 yr
D 12 yr


## Answer: D

## Explanation:

According to question
$P+R+2 Q=59 . . . . . . . . . . . ~ 1 ~$

$Q+R+3 P=68$......... 2
$P+3 Q+3 R=108$ $\qquad$ .3

Multiply equation (2) by 3
And subtract equation (iii) from it,
Then $P=12$ years


## Question 55

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

A 48 yr

B 60 yr

C 84 yr
D 96 yr
Answer: B
Explanation:


Present age of Mahesh $=5$ years
Present age of Anup $=5-2=3$ years
Let present age of Shyam =x
Then, present age of Anup $=x-6 / 18$
$x-6 / 18=3$
So, $x-6=3 \times 18=54$
Therefore, $x=54+6$
$=60$
Question 56
There are two concentric circular track of radii 100 m and 102 m , respectively. A runs onthe inner track and goes once round in 1 min 30 sec , while $B$ runs on the outer track in 1 min 32 sec . Who runs faster?

A A

B B

C Cannot be determined

D None of these
Answer: B

## Explanation:

First let us take out the circumferences of both circles.
Radius of inner circle $=100 \mathrm{~m}$
$\therefore$ Circumference of the inner track $=2 \pi r$

$$
\begin{aligned}
& =2 \times 3.14 \times 100 \\
& =628 \mathrm{~m}
\end{aligned}
$$

Radius of outer track= 102 m
So, Circumference of outer track $=2 \pi r=2 \times 3.14 \times 102=753.6 \mathrm{~m}$
Time taken by $\mathrm{A}=1 \mathrm{~min} 30 \mathrm{sec}=90 \mathrm{sec}$
Time taken by $B=1$ min $32 \mathrm{sec}=92 \mathrm{sec}$
Speed of A = Distance covered by A/ Time taken

$$
\begin{aligned}
& =628 / 90 \\
& =6.98 \mathrm{~m} / \mathrm{s}
\end{aligned}
$$

Speed of $B=$ Distance covered by $B /$ time taken

Speed of $A$ is smaller than the speed of $B$.
So, B runs faster.

## Daily Free Topic Test

## Question 57

A man reaches his office 10 minutes late if he drives his car at 40 kmph , and 5 minutes early if he drives his car at 50 kmph from his home. How should I calculate the distance of his office from his home?

A 25
B 50

C 75

D 100
Answer: B

## Explanation:

Speed = distance / time
$40=$ distance $/(t+10)$
$50=$ distance $/(t-5)$
$4 / 5=(t-5) /(t+10)$
$4 \mathrm{t}+40=5 \mathrm{t}-25$
$t=65 \mathrm{~min}$
distance $=$ speed $*$ time
$=40$ * (75/60) --- in hours
$=50 \mathrm{~km}$

## Question 58

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

A $\quad \begin{aligned} & 10 \\ & 19\end{aligned}$
B $\quad \begin{array}{r}1 \\ 20\end{array}$

C $\quad 19$

D $\quad \begin{gathered}9 \\ 19\end{gathered}$
Answer: A

## Explanation:

You have to choose Odd-Even or Even-Odd.
The probabilities of both events are the same: at the start there's the same amount of odds and evens.
So calculate for one of them and multiply by 22.
First number being odd: $10 / 20=1 / 2$
Second number being even: 10/19


Overall $=10 / 19 * 2 * 2=10 / 19$

## Question 59

Two coal loading machines, each working 12 h per day for 8 days, handle 9000 tonne of coal with an 1 efficiency of $90 \%$, while 3 other coal loading machines at an efficiency of $80 \%$ are set to handle 12000 tonne of coal in 6 days. How many hours per day should each machine work?

A 18 h per day

B 16 h per day
C 20 h per day
D 14 h per day
Answer: B

Explanation:
According to the question,
time 1 /amount of work done 1 = time 2/ambunt of work/done 2
(12*8*.9):(9000/2)::(6*x*.8):(12000/3)
So,on solving, we get
$\mathrm{x}=16 \mathrm{~h} /$ day

Question 60
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 h and each outlet pipe can empty the tank in 6 h . On opening all the pipes, an empty tank is filled in 9 h . The number of inlet pipes is

A 4
B 3

C 2

D 5
Answer: A

Explanation:
Let there are x inlet pipes.
work done by inlet =1/9
work done by outlet=1/6
Here $6-x$ is the outlets
$x / 9-(6-x) / 6=1 / 9$
$5 \mathrm{x}=20$
$\mathrm{x}=4$


Then there will be 4 inlet pipes the will to fill the tank

## Question 61

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, ho would not lose anything. But if he sells the computer system at $5 \%$ gain and the colour printer at $15 \%$ loss, he would lose 2800 in the bargain. How much did he pay for the colour printer?

A ₹ 16000
B ₹ 8000

C ₹ 9000

D ₹ 5334
Answer: A

## Explanation:

Cost Price. of comp. system =Rs. A
Cost Price of color printer $=$ Rs. B
$0.9 A+1.2 B=A+B$
$0.2 \mathrm{~B}=0.1 \mathrm{~A}$
$A=2 B$
$(A+B)-(1.05 A+0.85 B)=800$
$(2 B+B)-(2.10 B+0.85 B)=800$
$3 B-2.95 B=800$
0.05 B $=800$
$B=800 / 5 \times 100$
= 16, 000

## Question 62

Suppose that a maximum of 25 g of salt dissolves in 100 g 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 $\mathbf{2 8} \mathrm{g}$ per hour. After how long will it start sedimenting, approximately?

A 29 h
B 31 h

C 35 h

D 23 h
Answer: B

## Explanation:

25 gm salt in 100 gm water
$1 \mathrm{gm}=100 / 25$
$40 \mathrm{gm}=100 / 25 * 40=160 \mathrm{gm}$
Water is evaporated at 28 gms per hour
From option C, we get
after 30 hrs
water loss $=30 * 28$
$=840$
Present value of water $=1000-840=160 \mathrm{gms}$
After 30 hrs , water will start to reduce and salt will begin to sediment.

In a defective 6 faced die with numbers 1 to 6 inscribed, probability of odd is 2 times that of even. What is the probability to gt number 5 in single throw?

A $\quad \stackrel{2}{9}$

B $\quad \begin{array}{r}4 \\ 81\end{array}$
C $\quad \begin{aligned} & 1 \\ & 3\end{aligned}$

D $\quad \stackrel{1}{9}$

## Answer: A

## Explanation:

Prob of even + Prob of odd $=1$ (total probability)
Prob of even $+2($ Prob of even $)=1$
$3($ Prob of even $)=1$
Prob of even $=1 / 3$
So, prob of odd = $2 / 3$
Since there are 3 odd numbers $\{1,3,5\}$.
So, Prob of getting 5 is $1 / 3$
Hence, getting 5 ( odd $)$ in a single throw is $=2 / 3 * 1 / 3=2 / 9$

## Question 64

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 $\quad 500000 \mathrm{~kg}$
C 450000 kg

D 600000 kg
Answer: A


## Explanation:

Let 100 kg of hematite be obtained then $20 \%$ of it get wasted that means 80 kg of ore remains.
Pure iron $=25 \%$ of remaining ore $=80 * 25 / 100$
$=20 \mathrm{~kg}$.
20 kg pure Iron is obtained from 100 of hematite.
1 kg pure Iron is obtained from $=100 / 20$ hematite;
Then, 80000 kg pure Iron is obtained from $=(100 / 20) \star 80000$
$=400000 \mathrm{~kg}$ hematite .
Question 65
A car driver, driving in a fog, passes a pedestrian who was walking at the rate of $2 \mathrm{~km} / \mathrm{h}$ in the same direction. The pedestrian could see the car for 6 min and it /was visible to him up to a distance of 0.6 km . What was the speed of the car?

A $15 \mathrm{~km} / \mathrm{h}$

B
30 km/h

C $20 \mathrm{~km} / \mathrm{h}$

D $8 \mathrm{~km} / \mathrm{h}$
Answer: D

## Explanation:

Relative speed formula in same direction


S1 and S2 be the speeds of car and passenger respectively and L be the distance travelled.
S1-S2=(L1+L2)/T
So in the question $\mathrm{s} 1=2 \mathrm{~km} / \mathrm{hr}$
$\mathrm{L} 1+\mathrm{L} 2=0.6 \mathrm{~km}$
$\mathrm{T}=6 \mathrm{~min}$ so to covert in hour
$6 \mathrm{~min}=1 / 10 \mathrm{hr}$
So put all the values in the formula
S1-2=(0.6)*10
$\mathrm{S} 1=8 \mathrm{~km} / \mathrm{hr}$


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Question 66
A, B and C working together completed a job in 10 days. However, C only worked for the first three days when $37 / 100$ 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 comlete the entire work?

A 25 days

B 20 days

C 30 days

D 40 days
Answer: B

## Explanation: <br> $A+B+C 3$ day work $=37 / 100$ <br> remaining work $=63 / 100$

$A+B$ complete the work in 7 days $=9 * 7 / 100$
A+B 1 day work= 9/100
Now A+B 1st 3 days work $=27$, remaining $=37-27=10$
so in 1st 3 days $A$ work $=10$, A 1 day work $=10 / 3$
So, C alone needs 30 days to complete the work
A 5 day work $=$ B 4 day work (Clearly B is more efficient than A)
A efficiency $=20>$ \#br\#\#\#B efficiency $=25>\#$ br\#\#\#
Now $A+B 1$ day work $=9$ \{i.e $A$ is doing $4 / 9$ part and $B$ is doing $5 / 9\}$
If A work alone $=25$ Days
If B work alone $=20$ Days


Three different containers contain differeose nt quantities of a mixture of milk and water, wh measurements are $403 \mathrm{~kg}, 434 \mathrm{~kg}$ and 465 kg . What biggest measure must be there to measure all the different quantities exactly?

A 70 kg

B 51 kg

C 31 kg
D 41 kg
Answer: C

## Explanation:

Different containers contain different quantities of a mixture of milk and water, with measurements are $403 \mathrm{~kg}, 434 \mathrm{~kg}$ and 465 kg
Required answer $=$ HCF of measurements of 403, 434 and 465
$403=31$ * 13
$434=31 * 7 * 2$
$465=31 * 5 * 3$
$\mathrm{HCF}=31$
So, biggest measure must be there to measure all the different quantities exactly $=31 \mathrm{~kg}$.
Question 68

## A conical tent is 5 m high and the radius of the base of 12 m find the slant height if the cost of 1 m square canvas is rs 70 find the cost of canvas required to make the tent

A 34322

B 34320
C 34321

D 34319
Answer: C

## Explanation:

Radius of the tent $=12 \mathrm{~m}$
Height $=5 \mathrm{~m}$
Slant height $=\sqrt{ }\left(\mathrm{r}^{2}+\mathrm{h}^{2}\right)$
$=\sqrt{ }\left(5^{2}+12^{2}\right)$
$=\sqrt{ }(25+144)$
$=\sqrt{ }(169)$
$=13 \mathrm{~m}$
Curved surface area of the tent $=\pi r l$
$=22 / 7 \times 12 \times 13$
$=490.28$
$=490.3 \mathrm{~m}^{2}$
Cost of 1 m² canvas = ₹70


Question 69

## Daily Free Topic Test

At a point on level ground the and (a)
At a point on level ground, the angle of elevation of a vertical tower is found to be such that its tangent is 12 . On walking 192 m towards the tower, the fangent of the angle of elevation is ${ }_{4}^{3}$. The height of the tower is

A 96 m
B 150 m

C 180 m
D 226 m
Answer: C

## Explanation:


$\tan \alpha=5 / 12$
$\tan \beta=3 / 4$
In triangle BAC,
$\tan \alpha=A B / A C=5 / 12=h /(X+192)$. $\qquad$ (1)

In Triangle DAB,
$\tan \beta=\mathrm{AB} / \mathrm{AD}=3 / 4=\mathrm{h} / \mathrm{x}$
$x=4 h / 3$
Using (ii) in (i)
$5 / 12=h /(192+4 h / 3)$
On solving, we get
$h=180$ metres.
Hence, the height of the tower is 180 metres.

## Question 70

In a medical certificate, by mistake a candídate gave his height as $25 \%$ more than actual. In the interview panel, he clarified that his height was 55 ft 5 inches. What is the percentage correction made by the candidate from his stated height to his actual height?

B
20\%

C $25 \%$

D None of these
Answer: B

## Explanation:

Actual/clarified height $=X=5.5$
Mistaken height $=1.25 \mathrm{X}=6.875$
Percentage correction $=(6.875-5.5) / 6.875$
$=20 \%$
Question 71
A manufacturer of a certain item can sell all he can produce at the selling price of ₹ 60 each. It cost 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 x be total items/week,
Selling Price (SP) will be 60x,
Cost Price (CP) will be $[40 x+4000$ (extra 1000 for profit ) $] 7$
So,
$40 x+4000=60 x$
$20 x=4000$
$x=200$.
The number of units he should produce and sell in order to make a profit of at least ₹ 1000 per week is 200

## Question 72

A jar full of whisky contains $40 \%$ alcohol. A part of this whisky is replaced by another containing $19 \%$ alcohol and now the percentage of alcohol was found to be $26 \%$. What quantity of whisky is replaced?

A $\quad \begin{array}{r}2 \\ 3\end{array}$

B $\quad 1$

C $\quad 3$
D $\quad 4$
Answer: A

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## Explanation:

$0 \%$ alcohol solution is mixed with $19 \%$ alcohol solution to give $26 \%$ alcohol solution.
w1/w2 = (A2 - Aavg)/(Aavg - A1 $)$
$=(40-26) /(26-19)$
$=14 / 7=2 / 1$
So 2 parts of $19 \%$ solution were mixed with 1 part of $40 \%$ solution. This means that $2 / 3$ rd of the $40 \%$ solution was replaced by $19 \%$ solution.

## Question 73

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 $\quad \underset{2}{1}$
B $\quad \begin{array}{r}1 \\ 7\end{array}$
C $\quad \begin{array}{r}3 \\ \hline\end{array}$

D $\quad \begin{array}{r}2 \\ 3\end{array}$
Answer: A


## Explanation:

Probability of head=1/2
Because coin have only two chances tails or head.
And the statement that tails come 4 times will not affect the fifth toss.

So the probability of gefting head $={ }_{2}^{1}$
Question 74
The fuel indicator in a car shows 5 th of the fuel tank as full. When 22 more litres of fuel are poured into the tank, the indicator rests at three-fourth of the full mark. What is the capacity of the fuel tank?

A 40 L

B 30 L

C 25 L

D 35 L

## Answer: A

## Explanation:

Let the capacity of the fuel tank be x liters.
According to the question:
$x / 5+22=3 / 4 x$
On solving, we get
$x=40$
So,
Capacity of the fuel tank $=40$ litres.

## Question 75

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:
$P$ - sum and $r$ - rate of interest
Simple Interest $=$ Prt/100
Compound interest:
Amount $=P(1+r / 100)^{\wedge} n$
$P(r / 100)^{\wedge} 2=40$ )
$P(r / 100)^{\wedge} 2 \times(300+r) / 100=61$
On Solving, we get
$P=8000$ (sum)
Question 76
A man covers a certain distance on a toy train. If the train moved $4 \mathrm{~km} / \mathrm{h}$ faster, it would take 30 min less. If it moved $2 \mathrm{~km} / \mathrm{h}$ slower, it would have taken 20 min more. What is the distance covered?

A 65 km

B 60 km

C 70 km

D 75 km
Answer: B


Explanation:
Let V be the peed and T be the time taken to cover the distance.
$(\mathrm{V}+4)(\mathrm{T}-1 / 2)=(\mathrm{V}-2)(\mathrm{T}+1 / 3)$.
$(\mathrm{V}+4)(\mathrm{T}-1 / 2)=\mathrm{V} T$.

On solving, we get
$\mathrm{V}=20 \mathrm{~km} / \mathrm{hr}$ and $\mathrm{T}=3$ hours.
The distance $=\mathrm{VT}=60 \mathrm{~km}$.

## Question 77



Two trains, 330 and 110 m 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 s . What is the speed of the faster train?

A $42 \mathrm{~m} / \mathrm{s}$

B $38 \mathrm{~m} / \mathrm{s}$


D $50 \mathrm{~m} / \mathrm{s}$
Answer: A

Explanation:
Using the concept of relative velocity:
Total distance-240 m
When going in same direction
$240 / x-y=60$
$x-y=4$
When going in different direction
$240 / x+y=3$
$x+y=80$
On solving the equations we get,
$x=42$ and $y=38$
Speed of faster train is $42 \mathrm{~m} / \mathrm{s}$
and slower one is $38 \mathrm{~m} / \mathrm{s}$.


## Question 78

The average age of all the students of a class is 18 yr . The average age of boys of the class is 20 yr and that of the girls is 15 yr . If the number of girls in the class is $\mathbf{2 0}$, then what is the number of boys in the class?

A 30

B 15

C 45

D 50
Answer: A

Explanation:
Let $\mathrm{x}=$ boys in class and $\mathrm{y}=$ girls in class $=20$ (given).
Average $=$ Sum of age/No. of students
Given Avg. of class is $=\{(20 x+15(20)) /(20+x)\}=18$.
On solving, we get
$x=30$
No.of boys in class is 30

## Question 79

The total tractor population in a State is 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 tractor population is red. Find the percentage of non-Mahindra tractors that are red.

A $3 \%$

B 5.025\%


C

D 6.140\%
Answer: A

Explanation:
Mahindra red tractor=98/100*(150000)=147000
Total red tractor=294000*.53=155820
Non Mahindra red tractor=155820-147000
$=8820$
i.e 8820/294000
$=.03$
=3\%
Question 80
If $7 \%$ of the total quantity of wheat is lost in grinding when a country has to import 12 million tonne but when only $5 \frac{1}{5} \%$ is lost it can import 3 million tonne, then what is the quantity of wheat grown in the country?

A 600 million tonne

B 500 million tonne

C 400 million tonne

D 700 million tonne
Answer: B

## Explanation:

Difference in \% of whet lost $=7-26 / 5=9 / 5 \%$
Difference in import $=12-3=9$ million
As $9 / 5 \%$ of total qty of wheat $=9$ million
So, $9 x / 500=9$
Therefore, $x=500$ million.


In each of these questions two quantities $A$ and $B$ are given. Compare the two quantities

## Question 81

Suresh's salary, which is greater than ₹ 10000 is $\mathbf{7 5 \%}$ of Sandra's salary. Dutt's salary is $\mathbf{8 0 \%}$ of Suresh's salary
A. Sandra's salary
B. Dutt's salary
$A$ 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

if comparison cannot be made
Answer: A

## Explanation:

Let Suresh's salary be $s$ and sandra's be $x$ and dutts be $y$.
$s=0.75 x$ (given)
$y=0.8 * 0.75 x$
$y=0.6 x$
A. Sandra's salary - x
B. Dutt's salary -y

Quantity $A$ is greater than quantity $B$


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## Question 82

The total surface area of a cube $=150$.
A. The length of one edge of the cube
B. 4.5
$A$ 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: A

## Explanation:

Total surface area of the cube $=6 a^{\wedge} 2$
$a=$ side of the cube
$6 \mathrm{a}^{\wedge} 2=150$
$\mathrm{a}^{\wedge} 2=25$
$\mathrm{a}=5$
A. The length of one edge of the cube
B. 4.5

So, quantity $A$ is greater than quantity $B$
Question 83


A merchant made a profit of ₹ 275 on the sale price of a sweater that cost the merchant ₹ 1225 .
A. The profit expressed as a percentage of the sale cost to the merchant
B. The profit expressed as a percentage of the sale price.
$A$ 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: A


## Explanation:

A merchant made a profit of ₹ 275 on the sale price of a sweater that cost the merchant ₹ 1225 .
A. The profit expressed as a percentage of the sale cost to the merchant
B. The profit expressed as a percentage of the sale price
C. $P=1225$

Profit $=275$
Selling price $=$ cost + profit
$S . P=1225+275$
S.P. $=1500$
A. The profit expressed as a percentage of the sale cost to the merchant:
$275 / 1225=22.44 \%$
B. The profit expressed as a percentage of the sale price:
$275 / 1500=18.33 \%$
So, quantity $A$ is greater than quantity $B$
Question 84
There are 28 students in a class : all born in 1990.
A. The probability that all their birthdays are in February.
B. The probability that all their birthdays fall on a Friday.

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: B

## Explanation:

There are 28 students in a class : all born in 1990.
The probability that all their birthdays are in February. $=1 / 12$
The probability that all their birthdays fall on a Friday. $=1 / 7$
The chances that all will be born on a particular day of the week is thus higher than the chances of them all being born in the same month.

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Question 85
Based on the graph compare A and B.

A. The percent change in premium sales from February to March.
B. The percent change in total sales from January to February.
$A$ 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: A

## Explanation:

A. The percent change in premium sales from February to March.

13 to 10
$\%$ change $=13-10 / 13=3 / 13$
= 23.07\%
B. The percent change in total sales from January to February.:

18 to 18
So, 0\% change
Hence, quantity A is greater than quantity B
Instructions
Study the information to answer these questions In a city there are modes of transport available B, C, D, E and F for commuting. Out of the total number of commuters commuting daily in the city 17171 commute only by A. 7359 commute only ` 1 ! B and 22077 commute only by C. 14718 commute only by D, 4906 commute only by E and 7355 commute only by F. 26983 commute by C as well as $\mathrm{A}, 9812$ commute by E as well as A , and 12265 commute by $C$ as well as E daily - Assume that there is no overlap between the commuters of different modes tand their combination) of transport

Question 86
The total number of commuters commuting by A from what percent of the total number of commuters commuting daily?

A 22

B 44

C 14


D 36
Answer: A

## Explanation:

Total $=17171+7359+22077+17418+4906+7355$
$=76286$


Total number of commuters commuting by A from what percent of the total number of commuters commuting daily $=$
17171/76286 * 100
= $22.5 \%$
Question 87
What is the difference in percentage of commuters commuting by $E$ and that of $B$ and $F$ taken together?

A 22

B 25

C 13

D 10
Answer: C

Explanation:
B $=7355$
$\mathrm{F}=7359$
$B+F=14714$
$E=4906$
$B+F=14714 / 76186$
$=19.3 \%$
$E=4906 / 76186$
= 6.4\%
Difference $=19.3-6.4$
$=13 \%$

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## Question 88

The total number of commuters commuting by $D$ and $B$ taken together from what percent of the total number of commuters commuting daily?

A 12

B 6
C 28

D 16
Answer: C

Explanation:
B $=7359$


$D=14718$
$B+D=22077$
The total number of commuters commutingby $D$ and $B$ taken together from what percent of the total number of commuters commuting daily?;

22077/76186
= $28 \%$

## Question 89

A majority of the commuters in the city use

A A

B B

C C
D D


Answer: C

## Explanation:

26983 commute by C as well as A, 9812 commute by E as well as A, and 12265 commute by C as well as E daily.
People commute by C:
$22077+(26983-22077)+(12265-9812)$
= 29436

## Question 90

The number of commuters commuting by $B, D$, and $F$ taken together from what percent of the total number of commuters commuting daily by $A, C$ and $E$ taken together?

A 44

B 38

C 43
D 46
Answer: A

## Explanation:

Number of commuters commuting by B, D, and F =
$7359+7355+14718=29432$
Number of commuters commuting daily by $\mathrm{A}, \mathrm{C}$ and $\mathrm{E}=$
$17171+29432+9812+12265=66880$
$\%=29432 / 66880$
$=44 \%$


Daily Free Topic Test

## Instructions

Study the following graph to answer these questions
Three different finance companies declare fixed annual rate of interest on the amount invested with them by investors. The rate of interest offered by these companies may differ from year to year depending on the variation in the economy of the country and the
banks rate of interest. The annual rate of interest offered by the three companies $P, Q$, and $R$ over the year are shown by the line-graph provided below.

## Annual Rate of Interest Offered by three Finance <br> Companies Over the Years



Question 91
If two different amount in the ratio 8:9 are invested in companies $P$ and $Q$ respectively in 2012, then the amounts received after one year as interest from companies $P$ and $Q$ respectively are in the ratio

A $2: 3$

B 3:4

C 6:7

D 4:3
Answer: D

Explanation:
Let the amounts invested in 2012 in Companies P and Q be Rs. $8 \times$ and Rs. $9 \times$ respectively.
Then, interest received after one year from Company $P=6 \%$ of $8 x$
$=48 / 100 x$
and interest received after one year from Company $Q=4 \%$ of $9 x$
$=36 / 100 x$
Required ratio $=48 x / 100: 36 x / 100$
$=4: 3$
Question 92
In 2010, a part of ₹ 30 lakh was invested in company $P$ and the rest was invested in companies $Q$ and $R$ for one year. The total interest, received was ₹ 2.43 lakh. What was the amount invested in company P?

A ₹ 7 lakh

B ₹ 8 lakh

C ₹ 18 lakh

D Cannot be determined
Answer: C

## Explanation:

Let Rs. $x$ lakhs be invested in Company P in 2010, the amount invested in Company Qin $2010=$ Rs. $(30-x)$ lakhs.
Total interest received from the two Companies after 1 year $=2.43=$
$=$ Rs. $[(7.5 \%$ of $x)+\{9 \%$ of $(30-x)\}]$ lakhs
Solving for $x$, we get
$x=18$ lakhs

## Question 93



An investor invested a sum of ₹ 12 lakh in company $P$ in 2008. The total amount received after one year was reinvested in the same company for one more year. The total appreciation received by the investoron his investment was

A ₹ 282000

B ₹ 296200

C ₹ 216000
D ₹ 225600
Answer: D

## Explanation:

Amount received from Company P after one year (i.e., in 2009) on investing Rs. 12 lakhs in it
Rs. $[12+(8 \%$ of 12$)]$ lakhs
$=12.96$ lakhs
Amount received from Company P after one year on investing Rs. 12.96 lakhs in the year 2009:
$=$ Rs. [12.96 + (10\% of 12.96)] lakhs
$=14.256$ lakhs
Appreciation received on investment/during the period of two years
$=$ Rs. (14.256-12) lakhs
= Rs. 2.256 lakhs
$=$ Rs. 2,25,600.

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## Question 94

A sum of Rs. 4.75 lakhs was invested in Company Q in 2009 for one year. How much more interest would have been earned if the sum was invested in Company P?

A ₹ 19000
B ₹ 14250
C ₹11750

D ₹ 9500
Answer: D

## Explanation:



Difference $=$ Rs. [(10\% of 4.75) - (8\% of 4.75)] lakhs
$=$ Rs. ( $2 \%$ of 4.75 ) lakhs
= Rs. 0.095 lakhs
= Rs. 95000
Question 95
An investor invested Rs. 5 lakhs in Company $Q$ in 2006. After one year, the entire amount along with the interest was transferred as investment to Company P in 2007 for one year. What amount will be received from Company P, by the investor?

A Rs. 5,94,550
B Rs. $5,80,425$

C Rs. $5,77,800$
D Rs. 5,77,500
Answer: B

## Explanation:

Amount received from Company Q after one year on investment of Rs. 5 lakhs in the year 2006
= Rs. [5 + (6.5\% of 5)] lakhs
= Rs. 5.325 lakhs.


Amount received from Company P after one year on investment of Rs. 5.325 lakhs in the year 2007
$=$ Rs. $[5.325+(9 \%$ of 5.325$)]$ Jakhs
= Rs. 5.80425 lakhs
$=$ Rs. 5,80,425
Instructions
Study the graph to answer these questions.
An ice-cream company prepare three different flavours $X, Y$, and $Z$. The production of the three flavours over a period of six years has been expressed in the bar graph provided below.

Production of three different flavours of ice-creams $X, Y$, and $Z$ by a Company over the years
In lakh
$\boxminus X \quad ■ Y \quad$ ■


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For which of the following years the percentage of rise/fall production from the previous year is the maximum for the flavour Y ?

A 2007 Decrease

B 2008 Increase

C 2009 Decrease

D 2010 Increase
Answer: A

## Explanation:

The percentage rise/fatl in production from the previous year for flavor $Y$ during various years are:
In 2006 $=60-55 / 55 * 100=9.09 \%$ increase
In $2007=60-50760 * 100=16.67 \%$ decrease
In $2008=55-50 / 50 * 100=10 \%$ increase
In $2009=55-50 / 50 * 100=9.09 \%$ decrease
In $2010=55-50 \times 50$ * $100=10 \%$ increase
Therefore, Maximum change is decrease of $16.67 \%$ during 2007.

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## Question 97

For which flavour was the average annual production maximum in the given period?

A For X

B For $Y$

C For Z

D Both for X and Y
Answer: B

Explanation:
Average annual productions over the given period for various flavours are:
For Flavour X $=[1 / 6$ * $(50+40+55+45+60+50)]=50$ lakh
For Flavour $Y=[1 / 6 *(55+60+55+50+50+55)]=54.17$ lakh
For flavour $Z=[1 / 6 *(45+50+60+60+45+40)=50$ lakh
Maximum average production is for Flavour Y .

## Question 98

What is the difference between the average production of flavour $X$ in 2005, 2006 and 2007 and the average production of flavour $Y$ in 2008, 2009 and 2010?

A 500000

B 25000

C 240000
D 80000

## Explanation:

Average production of flavour Xin 2005, 2006 and $2007=$
$1 / 3$ * $(50+40+55)$
$=145 / 3$ lakh
Average production of flayour Y in 2008, 2009 and $2010=$
$1 / 3$ * (55+50+55)
= 160/3 lakh
Difference $=160 / 3-145 / 3=15 / 3$
$=5$ lakh
$=500000$

## Question 99

Which year shows the highest productionof ice-cream?

A 2005

B 2007

C 2009

D 2010
Answer: B

## Explanation:

$2005=50+45+55=150$
$2006=40+60+50=150$
$2007=55+50+60=165$
$2008=45+55+60=160$
$2009=60+50+45=155$
$2010=55+50+40=145$
2007 is the answer.


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Question 100
The total production of flavour Z in 2007 and 2008 is what percentage of the total production of flavour $X$ in 2005 and 2006?

A $130 \%$

B 3.33\%

C $33.33 \%$

D $133.33 \%$
Answer: D

## Explanation:

Required \% = $(60+60) /(50+40)$ * 100
$=120 / 90 * 100$

## Instructions

Study the Table to answer these questions.
The following table gives the number of candidates Appeared (App.) and Qualifies (Quali.) in ABC entrance examination from different zones (I - IV in different years from 2006-2011)

| Zone | I |  | II |  | III |  | IV |  | V |  | VI |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | App. | Quali. | App. | Quali. | App. | Quali. | App. | Quali. | App. | Quali. | App. | Quali. |
| 2006 | 2989 | 575 | 2490 | 530 | 2540 | 430 | 2534 | 440 | 1008 | 130 | 2698 | 498 |
| 2007 | 2438 | 590 | 2899 | 520 | 2384 | 470 | 2653 | 450 | 1103 | 160 | 2798 | 610 |
| 2008 | 7534 | 608 | 2840 | 532 | 2053 | 502 | 2234 | 480 | 1143 | 190 | 2848 | 580 |
| 2009 | 6524 | 650 | 3600 | 560 | 2143 | 510 | 2468 | 500 | 1198 | 220 | 3008 | 490 |
| 2010 | 8746 | 632 | 3608 | 544 | 2340 | 544 | 2549 | 560 | 1208 | 240 | 2948 | 560 |
| 2011 | 8429 | 648 | 5432 | 612 | 2230 | 588 | 2630 | 580 | 1203 | 238 | 3048 | 534 |

Question 101
The qualifying percentage from zone V is maximum in which of the following years?

A 2010

B 2011

C 2009

D 2006
Answer: A

Explanation:
$2006=130 / 1008=12.9$
$2007=160 / 1103=14.5$
$2008=190 / 1143=16.62$
$2009=220 / 1198=18.36$
$2010=240 / 1208=19.86$
$2011=238 / 1203=19.78$
So, 2010 is the year for which zone V is maximum.
Question 102
The total number of qualifying candidates in 2009 is what per cent less than that in 2011?

A 8.21\%

B $9.89 \%$

C $6.89 \%$

D 8.43\%

## Answer: A

## Explanation:

Total number of qualifying candidates in $2009=$
$650+560+510+500+220+490$
$=2930$
total number of qualifying candidates in $2011=$

$648+612+588+580+238+534$
$=3192$
$\%$ required $=3192-2930 / 3192$
$=262 / 3192$
= $8.2 \%$

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## Question 103

Ratio between boys and girls for qualified and for appeared from zone IV in 2009 are 7:3 and $3: 2$ respectively. What is the approximate ratio between the boys qualified and girls appeared?

A $2: 13$

B 2:5

C 1:28

D 1:50
Answer: B

Explanation:
2009:
Appeared
Boys $=7 / 10 * 2468=1728$
Girls $=3 / 10 * 2468=740$
Qualified
Boys $=3 / 5 * 500=300$
Girls $=2 / 5 * 500=200$
Ratio required $=300 / 740$
$=0.4$
2/5 approx
Question 104


In which of the following zones is there a continuous increase in the number of students appeared as well as qualified over the years?

A Zone II

B Zone III

C Zone IV

D None of these
Answer: D

## Explanation:

Zone 1: not continuous increase
Zone 2: not continuous increase
Zone 3:not continuous increase
Zone 4:not continuous increase


Zone 6:not continuous increase
Not in any zones their is continuous increase.
Question 105
The number of students appeared from zone V in 2008 and 2011 together is approximately what per cent less than that from zone II in 2007 and 2010 together?

A 63.5\%
B $50.2 \%$

C $55.6 \%$

D 60\%
Answer: A

## Explanation:

Number of students appeared from zone V in 2008 and 2011 together $=$
$1143+1203$
$=2346$
Number of students appeared from zone II in 2007 and 2010 together $=$
$2899+3608$
$=6507$
$\%$ required $=6507-2346 / 6507$
$=63.55 \%$


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## Instructions

Study The following graphs to answer these questions.
The following piechart gives the percentage of adults from various industries working in night shifts. The bar graph shows the percentage of famales from these industries working innight shifts. Total number of people $=40250$

■ Sales
$■$ Banking
$\square$ Medical
$\square I T$
$\square$ Gaming
$\square$ Call Centre

In percentage



What is the approximate average number of females working in night shifts in all the industries?

A 2227

B 4481

C 3326

D 2523
Answer: A

## Explanation:

Total number of female employee $=[12 \%$ of $20 \%$ of $40250+18 \%$ of $20 \%$ of $40250+32 \%$ of $40 \%$ of $40250+8 \%$ of $60 \%$ of $40250+14 \%$ of $40 \%$ of $40250+16 \%$ of $10 \%$ of 40250 ]/ 6

Total number of female employee $=13363$
Required average number of females $=13363 / 6$
$=2227.16$
Question 107
The number of females working in night shifts the gaming industry is what per cent of the total number of people working in the night shifts from all the industries taken together?

A 5.6

B 3.6
C 3.2

D 4.4
Answer: B

## Explanation:

Female workers in Gaming $=18 \%$ of $20 \%$ of $40250=1449$
\% required = [Female workers in Gaming / Total no of people working in night shifts from all industries]*100
$=[1449 / 40250] * 10$
$=3.6 \%$
Question 108
What is the difference in percentage of males and females working in night shifts in these industries?

A 33.2

B 23.8

C 33.6

D None of the above
Answer: C

## Explanation:

Total number of female workers $=13363$
Total number of male workers $=40250-13363=26887$
Difference between male \& female workers $=27853-13363=13524$
$\%$ required $=\{$ Difference between male \& female workers/Total workers]*100
$\%$ required $=13524 / 40250 * 100$
= 33.6\%

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## Question 109

If the number of females working in hight shifts in banking were 3206, while the number of females in rest of the industries remained unchanged, the new percentage of females working in night shifts will be $\qquad$ . (assume that the total number of people working in night shifts remains constant)

A $31.56 \%$

B $33.72 \%$

C $23.82 \%$
D Cannot be determined $/$
Answer: A

## Explanation:

Female workers in Marketing $=14 \%$ of $40 \%$ of $40250=2254$
According to question, Female workers in Marketing $=3206$
Difference $=952$
After Increment, no of females $=$ Total number of female workers $+952=13663$
Total number of female workers $=13663-952$
$=12711$
\% required $=12711 / 40250 * 100$
= 31.58\%
Question 110


Percentage of males working in night shifts is lowest in which of the following industries?

A Sales
B IT and Medical
C Banking

Answer: A

## Explanation:

Sales $=8 \%$ of $40 \%$ of $40250=1288$
IT $=12 \%$ of $80 \%$ of $40250=3864$
Marketing $=14 \%$ of $60 \%$ of $40250=3381$
Gaming $=18 \%$ of $80 \%$ of $40250=5796$
So, Sales is the industry in which percentage of males working in night shifts is lowest.

## Instructions

Study the graph to answer these questions.
In the year 2012, 17 lakhtonne of a vegetable was produced in a certain State. Its production status in six Districts of that State is shown in pie chart 1. The percentages of total expenditure incurred under different heads for producing this vegetable in any district is shown in pie chart II.


Pie Chart I (Figure in lakh tonne)


Pie Chart II

## Question 111



The monthly expenses for water in district $\beta$ is more/less than the monthly expenditure for electricity in District $A$ by $\qquad$ (the total expenditure is $₹ 1700$ per tonne in a year).

A ₹ 82167 less
B ₹ 82167 more
C ₹ 986000 less


D
₹ 1003000 less
Answer: C

## Explanation:

Monthly expenses for water in district $B=17 / 100 * 2.56$
$=435200$
Monthly expenditure for eleatricity in District $A=14 / 100 * 3.15$
$=441000$
Difference $=(441000-435200)$
= 58000
Expenditure 58000*1700
= ₹ 986000

## Question 112

The total expenditure per tonne production of vegetable in these districts is ₹ 5580 . The amount spent towards transport in district $F$ is more/less than that in district E by

A more by ₹ 11085600
B less by ₹ 11085600
C more by ₹ 72540000
D less by ₹ 72540000

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Answer: C
Explanation:
$\mathrm{F}=1.88$
$E=1.75$
Total expenses for $\mathrm{F}=1.88 * 5580$
$=10490.4$
Total expenses for $\mathrm{E}=1.75 * 5580$
$=9765$
Difference $=10490.4-9765$
$=725.4$ lakh
Question 113
If the expenditure incurred in district $D$ is $20 \%$ more than that in district $B$ and $₹ 950000$ were spent in district $B$, then expenses for labour in district $D$ are

A ₹ 1140000
B ₹ 152000
C ₹ 228000
D ₹ 190000
Answer: C

## Explanation:

Expenditure incurred in district $D$ is $20 \%$ more than that in district $B$ and $₹ 950000$ were spent in district $B$, then expenses for labour in district D :

Expenditure incurred in district $D=1.2 * 950000$
$=1140000$
Expenses for labour in district $\mathrm{D}=20 \%$ of total expenditure
20/100*1140000
$=228000$
Question 114


The profit earned by the sale of the vegetable in district $F$ is $25 \%$. The sale pricebeing $₹ 10000$ per tonne, how much money was spent on fertilizers?

A ₹ 8.46 crore
B ₹ 33.84 crore
C ₹ 33840

D ₹ 2707200000
Answer: D

## Explanation:

The profit earned by the sale of the vegetable in district F is $25 \%$. The sale price being ₹ 10000 per tonne, then money was spent on fertilizers:

Total selling price in district $\mathrm{F}=1.88^{*} 10000=18800 * 10^{\wedge} 6$
S.P. $=(1+P \%) * C . P$
(C.P. = cost price)
C.P. $=100 / 125 * 18800 * 10^{\wedge} 6$
C.P. $=150.4 * 10^{\wedge} 8$

Money was spent on Fertilizers $=18 \%$ of CP
$0.18 * 150.4$ * $10 \wedge 8$
$=27.072$ * $10^{\wedge} 8$
= ₹ 2707200000

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Question 115
The profit earned by the sale of the vegetable in district $F$ is $25 \%$. The sale price being $₹ 10000$ per tonne, how much money was spent on fertilizers?

A 38 crore
B 27.2 crore

C 25 crore
D 33.875 crore
Answer: B

## Explanation:



The profit earned by the sale of the vegetable in district $F$ is $25 \%$. The sale price being $₹ 10000$ per tonne, then money was spent on fertilizers:

Total selling price in district $\mathrm{F}=1.88^{*} 10000=18800 * 10^{\wedge} 6$
S.P. $=(1+P \%) * C . P$
(C.P. = cost price)
C.P. $=100 / 125 * 18800 * 10^{\wedge} 6$
C.P. $=150.4$ * 10^8

Money was spent on Fertilizers $=18 \%$ of CP
$0.18 * 150.4$ * $10^{\wedge} 8$
$=27.072$ * $10^{\wedge} 8$
= ₹ 2707200000
$=27.2$ crore
Instructions
Each problem, consists of a problem followed by two Statements $T$ and II. Decide whether the data in the statements are sufficient to answer the question.

## Question 116

If no student took test $T$ more than once, how many students took test $T$ ?
I. The average (arithmetic mean) of the students' scores on test $T$ was 72.
II. The sum of the students' scores on test $T$ was 2232.

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: C

## Explanation:

Statement 1: Insufficient
Number of students not able to find
Statement 2: Insufficient
We don't know how many students or the Average
Statements both:
Average = sum/students
let $\mathrm{x}=$ students who took test T .
$72=2,232 / x$
$72 x=2,232$
$x=2,232 / 72$
So, sufficient
Question 117
Last year ${ }_{5}^{4}$ of the applicants for a job on a police force passed the physical examination. If ${ }_{4}^{3}$ of the applicants who passed the physical examination also passed the written examination, how the applicants passed both examinations?
I. The number of applicants who did not either examination was equal to the number who passed the physical examination only.
II. There were a total of 100 applicants.

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

D if Statements I and II together are not sufficient, and additional data is needed to answer the question
Answer: B

## Explanation:


I. The number of applicants who did not either examination was equal to the number who passed the physical examination only.
II. There were a total of 1000 applicants.

Let total applicants that apply $=x$
passed physical exam $=4 / 5 x$
Written exam pass $=3 / 4 * 4 / 5 x=3 / 5 x$
The applicants passed both examinations is $3 / 5 \mathrm{x}$.
We need only $\times$ i.e. total number of applicants.
From Statement 2, we can get that, so alone Statement 2 is sufficient.

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Question 118
G, $P$ and $S$ are animal species. What is the average life span in years of $S$ ?
I. The average life span of $S$ is twice that of $P$ and ${ }_{5}^{4}$ that of $G$.
II. The average life span of $G$ is $\mathbf{3 0} \mathbf{~ y r}$ longer than that of $P$ and 10 yr longer than that of $S$

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 additiona/data is needed to answer the question
Answer: C

## Explanation:

Statement 1
$S=2 P$
$\mathrm{S}=(4 / 5) \mathrm{G}$
we cannot determine.

Statement 2:
$\mathrm{G}=\mathrm{P}+30$
$\mathrm{G}=\mathrm{S}+10$
we cannot determine.
Both statements:
$\mathrm{S}=(4 / 5) \mathrm{G}$ and $\mathrm{G}=\mathrm{S}+10 \mathrm{So}$,
$\mathrm{S}=(4 / 5)(\mathrm{S}+10)$
$(1 / 5) S=8$
$S=40$
So, we can determine using both the statements together.

There are exactly 6 teams in league $X$. What was the total number of games played by the 6 teams last season?
$I$. Each team in league $X$ played each of the other teams atleast once.
II. No team in league Xplayed more than 7 games.

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: D

## Explanation:

Statement 1:
Each team in league x played each of the other teams at least once So, if each team played each of the other teams ONLY once then there was total games played
$6 \mathrm{C} 2=15$. but if each team played each of the other teams TWICE then there was total of $2 * 6 \mathrm{C} 2=30$ games played.
Not sufficient

Statement 2:
No team in league $x$ played more than 7 games.


So, insufficient.

Both together:
If each team played each of the other teams only once then there was total of $6 \mathrm{C} 2=15$ games played (each of the 6 teams played 5 games), but if after each
team played each of the other teams only once, some two teams played between each other once more then the total number of games played was 16 (4 teams
played 5 games and 2 teams played 6 games).
Not sufficient.

## Question 120

A swimming club that sold only individual and family memberships charged ₹ 300 for an individual membership. If the club's total revenue from memberships was $₹ 480000$, what was the charge for a family membership?
I. The revenue from individual memberships was ${ }_{4}^{1}$ of the total revenue from memberships.
II. The club sold 1.5 times as many family memberships as individual memberships.

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: C

## Explanation:

Statement 1:
Since we don't know total individual membership we cant determine revenue from family membership from this condition.


Let us say $x$ is total no.of individual memberships; and $y$ be total family memberships. from the statement we have $y=1.5 x$
and from the question we have $x+y=480000$
So, value of y can be determined.
So, sufficient.

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## Instructions

Read the following information to answer these questions.
There are six students $J, K, L, M, N$ and $O$. $J$ and $K$ belong to priya palace and the rest belong to Nisha palace. $M$ and $O$ are tall while other students are short. $J, L$ and $M^{\prime}$ are identified by wearing jeans while others nro wearing caps.

Question 121
Which two students are not wearing jeans and are short?

A L and N

B K and N

C J and N

D K and O
Answer: B
Explanation:
J Priya Palace Short Jeans
K Priya Palace Short Cap
L Nisha Palace Short Jeans
M Nisha Palace Tall Jeans
N Nisha Palace Short Cap
O Nisha Palace Tall Cap
So, the answer would be option b) K and N

## Question 122

Which short student of Nisha Palace is wearing a cap?

A 0

B L

C M

D N
Answer: D

## Explanation:

J Priya Palace Short Jeans

## Free Gk Tests



K Priya Palace Short Cap
L Nisha Palace Short Jeans
M Nisha Palace Tall Jeans
N Nisha Palace Short Cap
O Nisha Palace Tall Cap
So, the answer would be option d)N

## Question 123

Which tall student of Nisha Palace is wearing jeans?

A 0

B N

C M
D L
Answer: C
Explanation:
J Priya Palace Short Jeans
K Priya Palace Short Cap
L Nisha Palace Short Jeans
M Nisha Palace Tall Jeans
N Nisha Palace Short Cap
O Nisha Palace Tall Cap
So, the answer would be option c) M

## Instructions

Read the following information to answer these questions.
There are six employees sitting in a competitive examination, namely $K, L, M, N, O$ and $P$. Kand $L$ are from Dehradun while $M, N, O$ and $P$
are from Mangalore. $N$ and $P$ are tall while rest are short. $L, O$ and $P$ are males while rest of them are females.

## Question 124

Who is the tall female from Mangalore?


A M

B P

C 0

D N
Answer: D

## Explanation:

K Dehradun Short Female
L Dehradun Short Male
M Manglore Short Female
N Manglore Tall Female
O Manglore Short Male
P Dehradun Tall Male

So, the answer would be option $/ \mathrm{d}$ ) N


## Daily Free Topic Test

Question 125

## Who is the short female from Dehradun?

A M

B L

C K


D N
Answer: C

Explanation:
K Dehradun Short Female
L Dehradun Short Male
M Manglore Short Female
N Manglore Tall Female
O Manglore Short Male
P Dehradun Tall Male
So, the answer would be option c)K
Question 126
Who is the tall male from Mangalore?

A 0
B $P$
C M

D N
Answer: B

## Explanation:

K Dehradun Short Female
L Dehradun Short Male
M Manglore Short Female
N Manglore Tall Female
O Manglore Short Male
P Dehradun Tall Male
So, the answer would be option b)P.

## Instructions

Read the following information to answer these questions.
There are six books/volumes kept in a steel rack/shelf and are labelled as $L, M, N, O, P$ and $Q . M, P, N$ and $Q$ have blue covers while others have red covers. $L, M$ and $O$ are new volumes while the rest are old volumes. $L, M$ and $N$ are law books while the rest are engineering books.

Which two volumes are old engineering books having blue covers?

A Pand N

B P and O

C PandQ

D Q and L
Answer: C

Explanation:
L Red New Law
M Blue New Law
N Blue Old Law
O Red New Engg
P Blue Old Engg
Q Blue Old Engg
So, the answer would be option c) P and Q

## MAT Free Solved Previous Papers

Question 128
Which new volumes engineering book has a red cover?

A L

B 0

C Q

D P
Answer: B

Explanation:
L Red New Law
M Blue New Law
N Blue Old Law
O Red New Engg
P Blue Old Engg
Q Blue Old Engg
So, the answer would be option b) 0
Question 129
Which new volume law book has a blue cover?

A P

B N
C L


D $M$
Answer: D

## Explanation:

L Red New Law
M Blue New Law
N Blue Old Law
O Red New Engg
P Blue Old Engg
Q Blue Old Engg
So, the answer would be option d)M

## Instructions

Read the following information to answer these questions.
Ramesh, Kailash, Avinash and Jagan are good friends studying in a school. Three of them stay away from the school and one stays nearer to it. Two study in class IV, one in class V and one in class VI. They study Hindi, Maths, Social Science and Science. One of these four friends is good at all the four subjects while another is weak in all the four subjects. Ramesh stays away from the school and is good at Maths only while Kailash is weak in Maths only and stays close to the school. Neither of these two study in class V or VI. One who is good at all the subjects is studying in class V . Avinash is not studying in class VI .

Question 130
Name the boy who is good at all the subjects

A Kailash
B Jagan
C Avinash
D Ramesh


Answer: C

## Explanation:



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Question 131
Name the boy who is weak in all the subjects.

A Ramesh

B Kailash

C Jagan

D Avinash
Answer: C

## Explanation:

Decode all the information and represent them in a diagram.
School


So, the answer would be option c)Jagan.
Question 132
Which two boys are good at Mathematics?

A Jagan and Kailash
B Kailash and Avinash

C Ramesh and Avinash

D Ramesh and Jagan
Answer: C


Explanation:
Decode all the information and represent them in a diagram.
School


Live Far

So, the answer would be option c)Ramesh and Avinash

## Instructions

Read the following information to answer these questions.
Five friends namely Kapil, Govind, Hans, Raju and Jitu have very good characteristics and are being considered for various awards. Govind, Kapil and Hans are sincere. Kapil, Raju and Jitu are very brave. Raju, Hans and Jitu are very truthful. Kapil, Govind and Jitu are courteous.

Question 133
Which combination of friends is 'Courteous' but not `Brave'?

A Govind and Kapil

B Jitu and Hans

C Hans and Raju

D None of these
Answer: D

## Explanation:

Sincere - Govind, Kapil and Hans
Brave - Kapil, Raju and Jitu
Truthful - Raju, Hans and Jitu
Courteous - Kapil, Govind and Jitu
There is no such pair.
So, the answer would be option d)None of these

## Question 134

Which of the following persons is 'Courteous' but neither Truthful'nor 'Brave'?

A Hans

B Raju

C Kapil

D Govind
Answer: D

## Explanation:



Sincere - Govind, Kapil and Hans
Brave - Kapil, Raju and Jitu
Truthful - Raju, Hans and Jitu
Courteous - Kapil, Govind and Jitu
Govind is Courteous and sincere but neither Truthful nor Brave.
So, the answer would be option d)Govind
Question 135
Which of the following persons is neither `Courteous' nor 'Brave'?

A Kapil


D Raju
Answer: C

## Explanation:

Sincere - Govind, Kapil and Hans
Brave - Kapil, Raju and Jitu
Truthful - Raju, Hans and Jitu
Courteous - Kapil, Govind and Jitu
Hans is Sincere and Truthful , neither Courteous nor Braye.
So, the answer would be option c)Hans
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.

Question 136
Statement Parents are prepared to pay any price for an elite education to their children.
Conclusions
I. All parents these days are very well off.
II. Parents have an obsessive passion for a perfect development of their children through good schooling

A if Conclusion I follows
B if Conclusion II follows
C if either Conclusion Ior II follows

D if neither Conclusion nor Il follows
Answer: D

## Explanation:

Statement Parents are prepared to pay any price for an elite education to their children.
Conclusions
I. All parents these days are very well off. - It is not necessary that all parents are elite. There are parents who take loans for education of their children.
II. Parents have an obsessive passion for a perfect development of their children through good schooling. - Obsession is an exaggerated word.

So, the answer would be option d)Neither Conclusion I nor II follows

## Daily Free Topic Test

## Question 137

Statement I know nothing except the fact of my ignorance.,, Conclusions
I. Writer 's knowledge is very poor.
II. The world of knowledge is too vast to be explored by a single person.

A if Conclusion I follows


C if either Conclusion I or II follows

D if neither Conclusion I nor II follows
Answer: B

## Explanation:

Statement I know nothing except the fact of my ignorance.,,
Conclusions
I. Writer 's knowledge is very poor. - Writer's knowledge can not be judged by the given statement.
II. The world of knowledge is too vast to be explored by a single person. - It is a quote given by the Greek philosopher Socrates which implies that knowledge of world is too vast to be explored by a single person.

So, the answer would be option b)if Conclusion II follows
Question 138
Statement:
Quality has a price tag. India is allocating lots of funds to education.
Conclusions:
I. Quality of education in India would improve soon.
II. Funding alone can enhance quality of education.

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: A

## Explanation:

Statement Quality has a price tag. India is allocating lots of funds to education.
Conclusions
I. Quality of education in India would improve soon. - Since govt. is allocating funds for education , measures will be taken to improve the quality of education.
II. Funding alone can enhance quality of education. - Funding is not the only way to improve quality of education.

So, the answer would be option a)if Conclusion I follows

## Instructions

In each of these questions, two Statements I and II are given. These may have a cause and effect relationship or may have independent causes or be the effects of independent causes.

## Question 139

## Statements

I. International Agency for Research on Cancer (IARC) - an arm of the world health organisation (WHO) - will meet in France to take a call on bitumen, the black, oily material used to make robads - to be branded as `probably carcenogenic, i.e., causing cancer to humans.
II. IARC has asked experts from across the globe to submit data from their research studies conducted on bitumen so as to help it to come to some conclusion.

A if Statement I is the cause and Statemently 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

Answer: D

## Explanation:

IARC is taking measures to check health hazards created by bitumen. Both the actions may have been taken because of some survey or research results.

So, the answer would beoption d)if both the Statements I and II are effects of some common cause

## MAT Free Solved Previous Papers

Question 140

## Statements

I. In a survey conducted recently in America, almost 70\% of Americans said they find it easier to care for their cars than their personal health. $40 \%$ of them said they would be more likely to address their issues with their car than their health
II. Based on the above survey, the national campaign network for men 's health launched this awareness through Abbott Laboratories to encourage men to visit their doctors more often to enjoy better health.

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: A

## Explanation:



The results of survey triggered national campaign network for mens health to launch awareness program through Abbott Laboratories.
So, the answer is option a)if Statement I is the cause and Statement II is its effect

## Question 141

## Statements

I. The local co-operative credit society has decided to stop giving loans to farmers with immediate effect.
II. A large number of credit society members have withdrawn major parts of their deposits from the credit society.

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: B

## Explanation:

Since most of the deposits are withdrawn by members of the society, there will be shortage of cash deposits, which is why credit society has decided to stop giving loans to farmers with immediate effect.
So, the answer would be option b)if Statement II is the cause and Statement I is its effect.
Instructions
Each of these questionsconsists of a pair of words bearing a relationship. From amongst the alternatives, choose the pair that best illustrates a similar relationship.

Question 142
VALUELESS: INVALUABLE

A Costly: Cut-rate
B Miserly: Philanthropic
C Frugality: Wealth

D Thriftiness: Cheap
Answer: B

## Explanation:

VALUELESS is opposite of INVALUABLE , similarly Miserly is opposite of Philanthropio.
So, the answer would be option b)Miserly : Philanthropic


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Question 143

## PATRIOTISM : CITIZENS

A Morality: Truthfulness

B Character: Values

C Concentration: Students
D Homage : Martyrs
Answer: C

## Explanation:



Patriotism is a quality which Citizens should have, Similarly, Concentration is a quality which students should have.

## Question 144

TRAVELLER : DESTINATION

A Beggar: Donation
B Accident:Hospital
C Teacher: Education

D Refugee: Shelter
Answer: D

## Explanation:

Traveller keeps going towards destination, while refugee goes to shelter
So, the answer would be option d)Refugee : Shelter

## Question 145

HORSE : EQUINE

A Lion: Carnivorous

B Cat: Feline

C Table: Furniture


Answer: B

## Explanation:

Horse belongs to Equine family , similarly cat belongs to feline family.
So, the answer would be option b)Cat : Feline

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## Instructions

Complete the series by replacing the '?' mark
Question 146
OAC, PBD, QCE, RDF, ?

A SGH

B SHI

C SEG

D SIJ
Answer: C

## Explanation:

In the given series, OAC, PBD, QCE, RDF, ?
1st, 2nd and 3rd letters in eachterm are a series of letters as per alphabetical order. Similarly, next term would be SEG
Question 147
ABCD, BCDA, CDAB, ?, ABCD

A BADC
B DABC

C DBAC

D DACB
Answer: B

## Explanation:

In the given series, $A B C D, B C D A, C D A B, ?, A B C D$
We can observe that subsequent term is formed by moving the first letter of previous term to last position.
Therefore, Missing term would be DABC
Question 148
AMV, BNW, COX, ?, EQZ

A DMO

B DPY

C DYP

D DLZ


## Explanation:

In the given series, AMV, BNW, COX, ?, EQZ
first letter in each term is $A, B, C, .$. Therefore hext letter is $D$
Second letter in each term is $M, N, O, .$. Thereforenextletter is $P$
Third letter in each term is $\mathrm{V}, \mathrm{W}, \mathrm{X}, .$. Therefore next letter is Y
Therefore, missing term is DPY

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Question 149
$B C D, B D C, C B D, ?, D C B$

A CDB

B CCD

C CDE


D DCB
Answer: A

## Explanation:

The pattern is :
B $\rightarrow C D, D C$
C -> BD , DB
D -> CB , BC
So, the answer would be option a)CDB
Question 150
XYZ, XZY, YZX, ?, ZXY

A XZZ

B YXZ

C YZW
D ZYX
Answer: B

Explanation:
XYZ, XZY, YZX, ?, ZXY
The pattern is :
X -> YZ, ZY
Y -> ZX, XZ

$Z$-> XY, YX
So, the answer would be option b) $Y X Z$

## Instructions

For the following questions answer them individually

## Question 151

There are six members in a family. A zis the father of $D, E$ is the grandfather of $D . B$, nephew of $F$ is the daughter-in-Law of $C$. $F$ is the uncle of $D$. What is the relationship of $C$ with $F$ ?

A Sister

B Mother-in-Law

C Mother

D Grandmother
Answer: A

Explanation:
This is an incorrect previous year question from "MAT"

How $C$ is related with family members it is not mentioned.
$B$, nephew of $F$ is the daughter-in-Law of $C$. - How can nephew be daughter in law.

## MAT Free SolvedPrevious Papers

## Question 152

In a family there are seven persons, comprising married couples, $T$ is the only son of $M$ and the grandson of $K . M$ is a widower. $M$ and $R$ are brothers and $W$ is the daughter-in-law of $J$ who is the mother of $R$ and has grandson ' $D$ '. How is $D$ related to $M$ ?

A Son

B Son-in-law

C Nephew

D Brother
Answer: C

Explanation:
$T$ is the son of $M$ ancrisivlo grandson of $K$. This is not clear
Question 153
$T, S$ and $R$ are three brothers. $T$ 's son $Q$ is married to $K$ and they have one child Rahul blessed to them. $M$ the son of $S$ is married to $H$ and this couple is blessed with a daughter Madhvi $R$ has a daughter $N$ who is married to $P$. This couple has one daughter Karuna born to them. How is Madhvi related toS?

A Daughter
B Niece

C Granddaughter

D None of these


Answer:
Explanation:


So, the answer would be option c)Granddaughter

## Question 154

If 27 March, 1995 was a Monday, then what day of the week was 1 November, 1994?

A Sunday

B Monday

C Tuesday

D Wednesday
Answer: C

## Explanation:

Here, 27th March 1995 was Monday. Now for caleulating total number of odd days. First, we calculate total number of days till 1
Number 1994
Number of days in March 1995=27
Number of days in February 1995=28
Number of days in January 1995=31
Number of days in December 1994=31
Number of days in November $1994=29$
Total number of days $=146$
Number of odd days $=146 / 7=20{ }_{7}^{6}$
So, 6 odd days.
On November 1, 1994 = Monday - 6
= Tuesday
So, the answer would be option c)Tuesday

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## Question 155

The last day of a century cannot be either.
I. Tuesday
II. Thursday
III. Saturday
IV. Sunday

A I and II

B I and IV
C. I. II and III

D I, III and IV
Answer: C


## Explanation:

100 years contain 5 odd days.
=> Last day of $1^{\text {st }}$ century is Friday.
200 years contain $(5 \times 2) \equiv 3$ odd days.
=> Last day of $2^{\text {nd }}$ century is Wednesday.
300 years contain $(5 \times 3)=15 \equiv 1$ odd day.
=> Last day of $3^{\text {rd }}$ century is Monday.
400 years contain 0 odd day.
$=>$ Last day of $4^{\text {th }}$ century is Sunday.
This cycle is repeated.
=> Last day of a century cannot be Tuesday or Thursday or Saturday.
So, the answer would be option c)I. II and III
Question 156
Five senior citizens are living in a multistoried building. Mr Muan lives in a flat above Mr Ashokan, Mr Lokesh lives in a flat below Mr Gaurav, Mr Ashokan lives in a flat above Mr Gaurav and Mr Rakesh lives in a flat below MrLokesh. Who lives in the topmost flat?

A Mr Lokesh


B Mr Gaurav

C Mr Muan

D Mr Rakesh
Answer: C

Explanation:
Order of flats would be
Muan , Akaksh , Gaurav, Lokesh , Rakesh
So, the answer would be option c)Muan

## Instructions

Each of these questions has an Assertion 'A' and a Reason 'R'.

## Question 157

Assertion (A): A body weighs less when immersed in water.
Reason (R): Newton's law explains the above phenomenon.
$A$ if both $A$ and $R$ are true and $R$ is the correct explanation of $A$
B if both $A$ and $R$ are true but $R$ 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: C

Explanation:


Newton's law discusses about the Force, while a body weighs less when immersed in water because of buoyancy. So, the answer would be option c) if $A$ is true but $R$ is false

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## Question 158

Assertion (A): India's 'Republic Day' falls on26th January.
Reason (R): Constitution of India, declaring India as a 'Republic', came into force on 26th January 1950.
$A$ if both $A$ and $R$ are true and $R$ is the correct explanation of $A$
$B$ if both $A$ and $R$ are true but $R$ 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: A

## Explanation:

Constitution was enforced on 26 th Jan , 1950. To remember this, it was celebrated as Republic day.
So, the answer would be option a)if both $A$ and $R$ are true but $R$ is the correct explanation of $A$
Question 159
Assertion (A): India is a democracy.
Reason (R): India is a developing 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 but $R$ 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: B

## Explanation:



Both assertion and reason are correct statements, but India being democratic an developing country are no where connected.
So, the answer would be option b)if both $A$ and $R$ are true but $R$ is not the correct explanation of $A$

## Question 160

Assertion (A): India is a secular country.
Reason (R): Indian people can practice any faith they like.

A if both $A$ and $R$ are true and $R$ is the correct explanation of $A$
B if both $A$ and $R$ are true but $R$ 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: B

Explanation:
Both options $A$ and $B$ are correct, but $B$ is not the reasonfor $A$. India is a secular country because our constitution encompasses idea of securlaism.

Infact , $A$ is the reason for $B$.
So, the answer would be option $B$ )if both $A$ and $R$ are true but $R$ is not the correct explanation of $A$

## Daily Free Topic Test

Indian \& Global Development

## Instructions

For the following questions answer them individually

## Question 161/

Which among the following is/are correct about participatory notes or P-Notes?

A They are derivative instruments

B They are used by Foreign Institutional Investors (FIIs) who are not registered with SEBI.

C They are used on Indian shares but at a location outside India

D All of the above
Answer: D

## MAT Free Solved Previous Papers

## Question 162

The Supreme Court of India in its judgment in September, 2013 in Writ Petition (C) No. has directed that the Election Commission of India to have a "None of the Above" (NOTA) option on the ballot papers and EVMs.

A 161 of 2004

B 121 of 2008

C 47 of 2005

D 71 of 2009
Answer: A

Question 163
Which of the following is/are the key objectives of the Rashtriya Uchchatar Shiksha Abhiyan (RUSA), the flagship program of the Government of India for higher education

A To improve access, equity and quality in higher education through planned development of higher education at the state leve

B It is proposed to improve the Gross Enrolment Ratio from 19\% at present to 30\% by 2020
C It will help create new academic institutions, and expand the existing institutions, that are self-reliant in terms of quality education and professional management.

D All of the above
Answer: D

## Question 164

The Government of India has recently approved the constitution of the 7th Pay Commission to implement its recommendations to revise the salary and pension, of its staff from

A January 2014

B January 2016

C January 2015

D January 2017
Answer: C


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## Question 165

How much gross budgetary support is approved by the Cabinet Committee on Economic Affairs for implementation of the National AIDS Control Programme Phase-IV by the Department of AIDS Control, Ministry of Health and Family Welfare, Gol?

A ₹ 8632.77 crore

B ₹ 7512.31 crore

C ₹ 9131.47 crore

D ₹ 6789.73 crore
Answer: A

Question 166
Which of the following is/are the salient feature(s) of the National Food Security Bill?

A $75 \%$ of rural and $50 \%$ of the urban population entitled to 5 kg of rice, wheat and coarse grains at $₹ 3$, ₹ 2 , ₹ 1 per kg respectively per month

B Pregnant women and lactating mothers entitled to nutritious meals and maternity benefit of atleast ₹ 6000 for six months
C Central Government will provide funds to states in case of food grain short supply and will protect the current allocation to states
D All of the above
Answer: D

Question 167
Who among thefollowing has won the gold medal in the men,s single sculls at the Asian Senior Rowing Championships in China in 2013?

A Bajrang Lal Takhar
B Swam Singh Virk
C Robin P Ulahannan
D Mohammed Ahmed
Answer: B

## Question 168

Which one of the following states has been recently awarded by the Government of India as best state in implementing the Maintenance and Welfare of Parents and Senior Citizens (MWPSC) Act, 2007 for providing services and facilities to senior citizens?

A Madhya Pradesh
B Kerala

C Himachal Pradesh

D Manipur

Question 169
Which among the following multinational companies is the world's most valuable brand of 2013 as per Interbrand's Best Global Brands report?

A Google
B Microsoft

C Walmart

D Apple
Answer: D


Question 170
How much was the total dividend paid by NTPC Ltd at 57.5\% of its paid-up capital for the financial year 2012-2013?

A ₹ 1649.09 crore

B ₹ 4741.00 crore

C ₹ 2135.17 crore

D ₹ 3351.56 crore
Answer: B

## Daily Free Topic Test

## Question 171

In which sport/game has Nikhat Zareen won the silver medal for India at the Youth World Championships in 2013?

A Boxing

B Badminton

C Tennis
D Judo
Answer: A

Question 172
Which among the following banks celebrated its Platinum Jubilee in October 2013?

A Yes Bank
B ICICI Bank

C J\&K Bank

D HDFC Bank
Answer: C


Which one of the following companies has launched its flagship smart phone G2 in September 2013 in India?

A Lenovo

B Sony

C Apple

D LG
Answer: D

## Question 174

Who among the following athletes created a new marathon world record in the Berlin marathon held in September 2013?

A Eliud Kipchoge

B Wilson Kipsang

C Patrick Makau

D Haile Gebreselassie
Answer: B

Question 175
'Nirmal Bharat Abhiyan' (NBA) is an initiative of the

A Ministry of Drinking Water and Sanitation, Gol

B Ministry of Minority Affairs, Gol

C Ministry of Information and Broadcasting, Gol
D Ministry of Helth \& Family Welfare, Gol
Answer: A

## Question 176

Which among the following countries faced the first Government shutdown in seventeen years in October 2013?

A USA

B UK

C France

D Germany

## Answer: A

Archaeological Survey of India and $\qquad$ jointly launches in October 2013, a unique initiative to take India's heritage sites online.

A Google
B MSN

C Yahoo
D Bing


Answer: A

## Question 178

The 11th India-ASEAN Summit and the 8th East Asian Summit took place in October 2013 at

A Indonesia

B Brunei
C Malaysia

D Vietnam
Answer: B

Question 179
Who has won the men's singles title of the US open Grand Slam tennis 2013?

A Andy Murray
B Novak Djokovic
C Rafael Nadal
D JM Del Potro
Answer: C

## Free Gk Tests

Question 180
The Gross Direct Tax collections in india during April-September of the FY. 2013-2014 is up by $\qquad$ and stood at ₹ $\mathbf{3 0 1 2 5 0}$ crore.

A $7.55 \%$

B 8.15\%

C $10.66 \%$
D 13.25\%
Answer: C

## Question 181

India and $\qquad$ . have signed an MoU in October 2013 to undertake a joint feasibility study of a High Speed Railway System on the Mumbai-Ahmedabad route.

A Korea

B Germany

C China

D Japan
Answer: D

Question 182
As per the latest report of the Ministry of Corporate Affairs, Gol, how many companies are in the official Registry as on 31st August 2013?

A 13.45 lakh

B 8.99 lakh

C 2.57 lakh

D 10.15 lakh
Answer: A


## Daily Free Topic Test

Question 183
Who among the following has been inducted into the prestigious National Academy of Engineering, United States for his contribution to industrial development in India and the world?

A Azim H Premji

B E Sreedharan

C Chandra Shekar
D Ratan Tata
Answer: D

Question 184


Which among the following countries has started Import of power (electricity) from India in October 2013?

A Sri Lanka

B Bhutan

C Bangladesh
D Myanmar
Answer: C

Question 185
Which of the following Oceanographic Research Vessels has been dedicated to the nation by the Government of India in October 2013?

A INS Ranvijay
B RV Samudra Ratnakar

C INS Jalashwa
D MV Bingo
Answer: B

## MAT Free Solved Previous Papers

Question 186
Which among the following is the top Internet Service Provider (ISP) in India in terms of market share (based on subscriber base) with 9.97 million?

A MTNL
B Bharti Airtel

C BSNL

D Hathway
Answer: C

## Question 187

Francois Englert and Peter W Higgs have been awarded the Nobel Prize 2013 in the field of

A Medicine

B Literature

C Economics

D Physics
Answer: D

## Question 188

Who among the following has won the 'Sakharov Human Rights Prize 2013'given by the European Union (EU)?

A Malala Yousafzai
B Nelson Mandela

C Kofi Annan
D MS Swaminathan
Answer: A


Question 189
The BRIGS Finance Ministers'and Central Bank Governors'meeting took place in October 2013 at

A Washington

B Delhi

C Moscow

D Rio de Janeiro
Answer: A

Question 190
As per the latest telecom subscription data (July 2013) released by TRAI, BSNL and MTNL, the two PSIJ operators hold of the wireless market share (based on subscriber base).

A 11.70\%

B 88.30\%

C $43.17 \%$

D 69.14\%
Answer: A

Question 191
Who has won the 100th edition of the Tour de France Cycling Championships?

A Marcel Kittel

B Chris Froome

C Marco Pantani

D Jan Ullrich
Answer: B

Question 192
"International Literacy Day" is annually celebrated by UNESCO on

A April 22
B November 14
C August 9
D September 8
Answer: D

## Question 193

Who among the following former Indian cricketers has become the brand ambassador for the National Tobacco Control Campaign of the Government of India?

A Saurav Ganguly


C Rahul Dravid

D Md Azharuddin
Answer: C

## Question 194

Recently, the Department of Post, Ministry of Communication and Information Technology has allotted a Customized Pin Code
$\qquad$ to the Supreme Court of India.

A 110251

B 110201

C 110301

D 110222


Answer: B


Question 195
In September 2013, where did the meeting between Indian and Pakistan Prime Ministers take place?

A Washington

B London

C New York
D Brussels
Answer: $C$

Question 196
The President of India launched the September 2013 which is expected to provide an identity to Khadi.

A Khadi Retail Showroom

B Khadi Online Shop
C Khadi Association Chapter

D Khadi Mark
Answer: D

## Question 197



Who is the author/writer of the $\qquad$ recently released book 'Gandhi Before India'?

A Charles Di Salvo

B Joseph Lelyveld

D Kuldip Nayar
Answer: C

## MAT Free Solved Previous Papers

Question 198
Which one of the following countries has Wont\} Asia Cup hockey tournament held in 2013?

A Korea

B Pakistan

C India

D Malaysia
Answer: A
Question 199
Mayaram Committee was formed by the Government of India to examine the

A alleged irregularities in the functioning of Ind Olympic Association
B alleged irregularities at the National Spot Excharq Ltd (NSEL)
C progress in 2G spectrum scam case

D progress in coal block allocation scam
Answer: B

Question 200
The 9 edition of 'Naseern Al Bahr , ' the biennial naval exercise, took place between the India, Navy and

A Bangladesh Navy
B United Arab Emirates Navy
C Royal Omani Navy
D Indonesian Navy
Answer: C


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