



CAT 1990

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Instructions

For the following questions answer them individually

Question 1

If R is an integer between 1 & 9, $P - R = 2370$, what is the value of R?

- I. P is divisible by 4.
II. P is divisible by 9.

- A The question can be answered with the help of statement I alone,
B The question can be answered with the help of statement II alone,
C Both, statement I and statement II are needed to answer the question, and
D The statement cannot be answered even with the help of both the statements.

Answer: B

Explanation:

Given: $P - R = 2370$

or $P = 2370 + R$;

So if we consider only 1st statement, R can be 2 or 6 as 2372 and 2376 both will be divisible by 4.

And if we consider only 2nd statement, R will be having an absolute value of 6 as 2376 will be divisible by 9.

Hence by taking only 2nd statement into consideration, we can find unique value of R.

So answer will be B).

Concept: Try to find a way with which we can find an absolute/unique answer.

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Question 2

A man distributed 43 chocolates to his children. How many of his children are more than five years old?

- I. A child older than five years gets 5 chocolates.
II. A child 5 years or younger in age gets 6 chocolates.

- A The question can be answered with the help of statement I alone,
B The question can be answered with the help of statement II alone,
C Both, statement I and statement II are needed to answer the question, and
D The statement cannot be answered even with the help of both the statements.

Answer: C

Explanation:

Concept: Try to see whether we can have a "UNIQUE/ABSOLUTE" answer to given question by applying statements with 3 possibilities.

If only 1st statement is taken into consideration.

If only 2nd statement is taken into consideration.

If both statements are taken into consideration.

In given question with first possibility, we can't have a unique answer as there can be 3 cases. Childs greater than 5 years, childs equal to 5 years and childs less than 5 years and with first possibility we know only that childs greater than 5 years get 5 chocolates nothing about other two cases.

With second possibility too, we can't find a unique answer as we can't say anything about childs greater than 5 years

Now with third possibility, we are having a unique answer to given question because we have information about all childs which are either greater than 5 year, lesser or equal to 5 years. Childs older than 5 years will be 5, childs equal to 5 years are 2 and childs younger than 5 years will be 1.

So answer will be C)

Question 3

Ramu went by car from Calcutta to Trivandrum via Madras, without any stoppages. The average speeds for the entire journey was 40 kmph. What was the average speed from Madras to Trivandrum?

I. The distance from Madras to Trivandrum is 0.30 times the distance from Calcutta to Madras.

II. The average speed from Madras to Trivandrum was twice that of the average speed from Calcutta to Madras.

- A The question can be answered with the help of statement I alone,
- B The question can be answered with the help of statement II alone,
- C Both, statement I and statement II are needed to answer the question, and
- D The statement cannot be answered even with the help of both the statements.

Answer: C

Explanation:

1. If only 1st statement taken into consideration:

$y = 0.30x$ (Where y = distance from Madras to Trivandrum and x = distance from Calcutta to Madras)

Nothing absolute can be said about average speed from Madras to Trivandrum.

2. If only 2nd statement taken into consideration:

$\frac{y}{t_y} = 2 \frac{x}{t_x}$ (Where t_x and t_y are time taken for Calcutta to Madras and Madras to Trivandrum respectively.)

And nothing absolute can be said about average speed from Madras to Trivandrum.

3. Now when both statements taken into consideration:

We will have $y = 0.30x$; $\frac{y}{t_y} = 2 \frac{x}{t_x}$ and $\frac{x+y}{t_x+t_y} = 40$ (Given)

After solving above three equations we can find a unique value for average speed from Madras to Trivandrum i.e.

$$\frac{y}{t_y} = \frac{920}{13}$$

Hence answer will be C.

Question 4

x , y , and z are three positive odd integers, Is $x+z$ divisible by 4?

I. $y - x = 2$

II. $z - y = 2$

- A The question can be answered with the help of statement I alone,
- B The question can be answered with the help of statement II alone,
- C Both, statement I and statement II are needed to answer the question, and
- D The statement cannot be answered even with the help of both the statements.

Answer: C

Explanation:

If only first statement taken into consideration:

$y - x = 2$ where x , y and z are three odd integers.

Nothing absolute can be said about divisibility of $x+z$ with 4.

Now if only second statement taken into consideration :

$z - y = 2$ and nothing absolute can be said about divisibility of $x+z$ with 4.

If we consider both statement simultaneously then

we get $x+z = 2y$

Now as we know y is an odd integer, so $2y$ will never get a factor of 4.

Hence $x+z$ is not divisible by 4.

As we find an absolute answer by using both statements Hence answer will be C)

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Question 5

The unit price of product P1 is non-increasing and that of product P2 is decreasing. Which product will be costlier 5 years hence?

I. Current unit price of P1 is twice that of P2.

II. 5 years ago, unit price of P2 was twice that of P1.

- A The question can be answered with the help of statement I alone,
- B The question can be answered with the help of statement II alone,
- C Both, statement I and statement II are needed to answer the question, and
- D The statement cannot be answered even with the help of both the statements.

Answer: D

Explanation:

Considering first statement only, current unit price of P1 is twice that of P2 and, Rates of P1 and P2 are either decreasing or P1 has constant rate. Now we can't say that which product will be costlier after 5 years as nothing certain information is there about rates of decreasing. Similarly if we consider only 2nd statement or consider both statements simultaneously, nothing certain can be said about rate of decreasing hence D will be answer

Question 6

X is older than Y, Z is younger than W and V is as old as Y. Is Z younger than X?

I. W may not be older than V

II. W is not older than V

- A The question can be answered with the help of statement I alone,
- B The question can be answered with the help of statement II alone,
- C Both, statement I and statement II are needed to answer the question, and
- D The statement cannot be answered even with the help of both the statements.

Answer: B

Explanation:

Taking only first statement into consideration:

Nothing absolute can be said about Z and X

Now taking only second statement into consideration:

$$W \leq V$$

As it is given that X is older than Y; Z is younger than W and V is as old as Y.

and through second statement we know that W is younger or as old as V.

So using above four information we can conclude that Z is not older than X.

Z is either younger or as old as X.

Hence answer will be B).

Question 7

How long did Mr. X take to cover 5000 km. journey with 10 stopovers?

I. The i^{th} stopover lasted i^2 minutes.

II. The average speed between any two stopovers was 66 kmph.

- A The question can be answered with the help of statement I alone,
- B The question can be answered with the help of statement II alone,
- C Both, statement I and statement II are needed to answer the question, and
- D The statement cannot be answered even with the help of both the statements.

Answer: C

Explanation:

As it is clear that total time of journey will be = Time taken at stop-overs + Time taken while travelling with avg. speed 66 km/h
Hence both informations are needed to solve the question. So our answer will be D.

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Question 8

Is $[(x^{-1} - y^{-1}) / (x^{-2} - y^{-2})] > 1$?

I. $x + y > 0$

II. x and y are positive integers and each is greater than 2.

- A The question can be answered with the help of statement I alone,
- B The question can be answered with the help of statement II alone,
- C Both, statement I and statement II are needed to answer the question, and
- D The statement cannot be answered even with the help of both the statements.

Answer: B

Explanation:

Given equation can be resolved to $\frac{1}{x} + \frac{1}{y} (xy \neq 0 \text{ and } x \neq y)$

Now for $\frac{1}{x} + \frac{1}{y}$ to be greater than 1,

$1/x + 1/y$ has to be less than 1.

For this to be true both x and y should be greater than 2.

Statement I doesn't give any information about this, but statement II clearly specifies this. Hence, only statement II is required to answer the given question. So it can be answered using statement 2 alone.

Instructions

In a game played by two people there were initially N match sticks kept on the table. A move in the game consists of a player removing either one or two matchsticks from the table. The one who takes the last matchstick loses. Players make moves alternately. The player who will make the first move is A. The other player is B.

Question 9

The smallest value of N (greater than 5) that ensures a win for B is

- A 7
- B 6
- C 10
- D 8

Answer: A

Explanation:

When total matchstick is 1, B will surely win as A is the one who is picking up matchstick first.

When total matchstick is 2, A will surely win as A will pick one matchstick then B has to pick last one.

When total matchstick is 3, A will surely win as he takes up a strategy so that B will have last matchstick to pick up. So A will pick 2 matchstick.

When total matchstick is 4, B will surely win as if A picks up one matchstick, remaining matchsticks will be 3 and we know that when total 3 matchsticks are there then the one, who is picking up matchstick first, is winning surely.

When total matchstick is 5, A will surely win as he takes up a strategy so that B will have last matchstick to pick up. So A will pick 1 matchstick first, then 4 matchsticks will be there and we know that the one, who picks up matchstick second now, will win. Hence A will win.

When total matchstick is 6, A will surely win either he takes up a strategy so that B will have last matchstick to pick up. So A will pick 2 matchstick first, then 4 matchsticks will be there and we know that the one, who picks up matchstick second now, will win. Hence A will win.

Hence it is making a pattern when number of matchsticks are 1,4,7,10.....N then B is winning the game.

So here minimum value of N greater than 5 will be 7.

Question 10

The largest of N (less than 50) that ensures a win for B is

A 46

B 47

C 48

D 49

Answer: D

Explanation:

When total matchstick is 1, B will surely win as A is the one who is picking up matchstick first.

When total matchstick is 2, A will surely win as A will pick one matchstick then B has to pick last one.

When total matchstick is 3, A will surely win as he takes up a strategy so that B will have last matchstick to pick up. So A will pick 2 matchstick.

When total matchstick is 4, B will surely win as if A picks up one matchstick, remaining matchsticks will be 3 and we know that when total 3 matchsticks are there then the one, who is picking up matchstick first, is winning surely.

When total matchstick is 5, A will surely win as he takes up a strategy so that B will have last matchstick to pick up. So A will pick 1 matchstick first, then 4 matchsticks will be there and we know that the one, who picks up matchstick second now, will win. Hence A will win.

When total matchstick is 6, A will surely win either he takes up a strategy so that B will have last matchstick to pick up. So A will pick 2 matchstick first, then 4 matchsticks will be there and we know that the one, who picks up matchstick second now, will win. Hence A will win.

Hence it is making a pattern when number of matchsticks are 1,4,7,10.....N then B is winning the game.

So largest value of N (less than 50) where B will win, is 49.

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Instructions

For the following questions answer them individually

Question 11

There were 'x' pigeons and 'y' mynahs in a cage. One fine morning, 'p' birds escaped to freedom. The bird-keeper, knowing only that $p = 7$, was able to figure out without looking into the cage that at least one pigeon had escaped. Which of the following does not represent a possible (x,y) pair?

- A (10,8)
- B (7,2)
- C (25,6)
- D (12,4)

Answer: A

Explanation:

If the number of mynahs is 7 or more and if 7 birds escaped, there is a possibility that no pigeon escaped. But the bird-keeper was able to conclude that atleast one pigeon escaped. So, the number of mynahs is less than 7.

From the options, we can see that only option a) violates this condition.

Question 12

The remainder when 2^{60} is divided by 5 equals

- A 0
- B 1
- C 2
- D None of these

Answer: B

Explanation:

2^{60} or 4^{30} when divided by 5
So according to remainder theorem
remainder will be $(-1)^{30} = 1$.

Question 13

Mr.X enters a positive integer $Y(>1)$ in an electronic calculator and then goes on pressing the square . root key repeatedly. Then

- A The display does not stabilize
- B The display becomes closer to 0
- C The display becomes closer to 1
- D May not be true and the answer depends on the choice of Y

Answer: C

Explanation:

Take 64 for example.

$$\sqrt{64} = 8$$

$$\sqrt{8} = 2.828$$

$$\sqrt{2.828} \text{ is close to } 1.7$$

So, we can see that the result is tending towards 1.

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Question 14

What is the sum of the following series: $\frac{1}{1 \times 2} + \frac{1}{2 \times 3} + \frac{1}{3 \times 4} \dots + \frac{1}{100 \times 101}$?

- A $\frac{99}{100}$
- B $\frac{1}{100}$
- C $\frac{100}{101}$
- D $\frac{101}{102}$

Answer: C

Explanation:

Given series can be written as:

$$\sum_{n=1}^{100} \frac{1}{n \times (n+1)}$$

$$\text{or } \sum_{n=1}^{100} \frac{(n+1) - n}{n \times (n+1)}$$

$$\text{or } \sum_{n=1}^{100} \left(\frac{1}{n} - \frac{1}{n+1} \right)$$

After putting values of n from 1 to 100, all terms will cancel out, only first and last terms will be there

$$\text{i.e. } 1 - \frac{1}{101}$$

$$\text{or } \frac{100}{101}$$

Question 15

The value of $\frac{1}{1-x} + \frac{1}{1+x} + \frac{2}{1+x^2} + \frac{4}{1+x^4}$

- A $\frac{8}{1-x^8}$
- B $\frac{4x}{1+x^2}$
- C $\frac{4}{1-x^6}$
- D $\frac{4}{1+x^4}$

Answer: A

Explanation:

$$\frac{1}{1-x} + \frac{1}{1+x} + \frac{2}{1+x^2} + \frac{4}{1+x^4}$$

$$\text{or } \frac{2}{1-x^2} + \frac{2}{1+x^2} + \frac{4}{1+x^4}$$

$$\text{or } \frac{4}{1-x^4} + \frac{4}{1+x^4}$$

$$\text{or } \frac{8}{1-x^8}$$

Question 16

Let a, b be any positive integers and $x = 0$ or 1 , then

- A $a^x b^{1-x} = xa + (1-x)b$
- B $a^x b^{1-x} = (1-x)a + xb$

C $a^x b^{(1-x)} = a(1-x)bx$

D None of the above is necessarily true.

Answer: A

Explanation:

Putting value of $x=0$ or 1 and solving all four options,
We will find that only option A satisfies the equation with both values, hence answer will be A.

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Question 17

There are six boxes numbered 1, 2, 3, 4, 5, 6. Each box is to be filled up either with a white ball or a black ball in such a manner that at least one box contains a black ball and all the boxes containing black balls are consecutively numbered. The total number of ways in which this can be done equals.

A 15

B 21

C 63

D 64

Answer: B

Explanation:

Total ways when all 6 boxes have only black balls = 1

Total ways when 5 boxes have black balls = 2

Total ways when 4 boxes have black balls = 3

Total ways when 3 boxes have black balls = 4

Total ways when 2 boxes have black balls = 5

Total ways when only 1 box has black ball = 6

So total ways of putting a black ball such that all of them come consecutively = $(1+2+3+4+5+6) = 21$

Question 18

Consider the following steps :

1. Put $x = 1, y = 2$
2. Replace x by xy
3. Replace y by $y + 1$
4. If $y = 5$ then go to step 6 otherwise go to step 5.
5. Go to step 2
6. Stop Then the final value of x equals

A 1

B 24

C 120

D 720

Answer: B

Explanation:

1. $x=1 ; y=2$

2. $x=2 ; y=3$

3. $x=6 ; y=4$

4. $x=24 ; y=5$

Hence when $y=5$, x will be 24

Question 19

In a stockpile of products produced by three machines M1, M2 and M3, 40% and 30% were manufactured by M1 and M2 respectively. 3% of the products of M1 are defective, 1% of products of M2 defective, while 95% of the products of M3 are not defective. What is the percentage of defective in the stockpile?

- A 3%
- B 5%
- C 2.5%
- D 4%

Answer: A

Explanation:

Let's say total products manufactured by M1, M2 and M3 are 100.

So M1 produced 40, M2 produced 30 and M3 produced 30

$$\text{Defective pieces for M1} = \frac{120}{100}$$

$$\text{Defective pieces for M2} = \frac{30}{100}$$

$$\text{Defective pieces for M3} = \frac{150}{100}$$

$$\text{So total defective pieces are } \frac{150+30+120}{100} = \frac{300}{100} = 3\% \text{ of total products.}$$

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Question 20

From any two numbers x and y , we define $x * y = x + 0.5y - xy$. Suppose that both x and y are greater than 0.5. Then $x * x < y * y$ if

- A $1 > x > y$
- B $x > 1 > y$
- C $1 > y > x$
- D $y > 1 > x$

Answer: B

Explanation:

$$x * x < y * y$$

$$\text{or } x + 0.5x - x^2 < y + 0.5y - y^2$$

$$y^2 - x^2 + 1.5x - 1.5y < 0$$

$$(y - x)(y + x) - 1.5(y - x) < 0$$

$$(y - x)(y + x - 1.5) < 0$$

$$(x - y)(1.5 - (x + y)) < 0$$

Now there will be two possibilities

$$x < y \text{ and } (x + y) < 1.5 \text{(i)}$$

$$\text{or } x > y \text{ and } (x + y) > 1.5 \text{(ii)}$$

Among all options only option B satisfies (ii).
Hence, option B is the correct answer.

Question 21

Consider a function $f(k)$ defined for positive integers $k = 1, 2, \dots$; the function satisfies the condition $f(1) + f(2) + \dots = \frac{p}{p-1}$. Where p is fraction i.e. $0 < p < 1$. Then $f(k)$ is given by

- A $(-p)(p)^{(k-1)}$
- B $p(1-p)^{k-1}$
- C $(p(1-p))^{k-1}$
- D None of these

Answer: A

Explanation:

$1-p$ can be compared with sum of an infinite G.P. series i.e. $\frac{a}{1-r}$ (where a is first term and r is common ratio)
Hence here $a = (-p)$
and $r = p$
So k^{th} term will be $= (-p)(p)^{(k-1)}$

Question 22

116 people participated in a singles tennis tournament of knock out format. The players are paired up in the first round, the winners of the first round are paired up in second round, and so on till the final is played between two players. If after any round, there is odd number of players, one player is given a bye, i.e. he skips that round and plays the next round with the winners. Find the total number of matches played in the tournament.

- A 115
- B 53
- C 232
- D 116

Answer: A

Explanation:

Round no.	Matches	Winners
1	58	58
2	29	29 or (28+1)
3	14	(14+1)
4	7	(7+1 = 8)
5	4	4
6	2	2
7	1	1
Total	115	

In second round, number of winners were odd hence 1 winner will be played in next round. Since in third round also number of winners are odd, then last round player will be played in this round and one another player will be played in next round.

Now in 4th round total winners will be (7+1), this 1 winner belongs to 3rd round where he was sent to play in next round.

Summation of all matches will be 115.

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Question 23

If n is any positive integer, then $n^3 - n$ is divisible

- A Always by 12
- B Never by 12
- C Always by 6
- D Never by 6

Answer: C

Explanation:

$n^3 - n$ can be written as:

$(n - 1)n(n + 1)$ (where n is a positive integer)

i.e. product of three consecutive integers.

Hence for any number $n=2$ or >2 , product will have a factor of 6 in it.

When two numbers are prime in product, then third number will always be divisible by 6

Or product will always have a factor of 3×2 into it.

Question 24

The value of $\frac{(1-d^3)}{(1-d)}$ is

- A > 1 if $d > -1$
- B > 3 if $d > 1$
- C > 2 if $0 < d < 0.5$
- D < 2 if $d < -2$

Answer: B

Explanation:

$\frac{(1-d^3)}{(1-d)} = 1 + d^2 + d$ (where $d \neq 1$)

Let's say $f(d) = 1 + d^2 + d$

Now $f(d)$ will always be greater than 0 and have its minimum value at $d = -0.5$. The value is $\frac{3}{4}$.

For $d < -1$; $f(d) > 1$

$-1 < d < 0$; $\frac{3}{4} < f(d) < 1$

$0 < d < 1$; $1 < f(d) < 3$

$d > 1$; $f(d) > 3$

So, for $d > 1$, $f(d) > 3$. Option b) is the correct answer.

Question 25

Gopal went to a fruit market with certain amount of money. With this money he can buy either 50 oranges or 40 mangoes. He retains 10% of the money for taxi fare. If he buys 20 mangoes, then the number of oranges he can buy is

- A 25
- B 18
- C 20
- D None of these

Answer: C

Explanation:

Let's say total money was x rs.

So cost price of 40 mango will be = x ;

Hence cost price of 20 mangoes will be = $\frac{x}{2}$

Taxi fare = $\frac{10x}{100}$

Total expense = $\frac{x}{2} + \frac{10x}{100} = \frac{6x}{10}$

Remaining money = $\frac{4x}{10}$

Cost price of 1 orange will be = $\frac{x}{50}$

Hence in $\frac{4x}{10}$ rs. 20 oranges can be purchased.

CAT Syllabus (Download PDF)

Instructions

A dealer deals only in colour TVs and VCRs. He wants to spend up to Rs.12 lakhs to buy 100 pieces. He can purchase a colour TV at Rs.10,000 and a VCR at Rs.15,000. He can sell a colour TV at Rs.12,000 and a VCR at Rs.17,500. His objective is to maximize profits. Assume that he can sell all the items that he stocks.

Question 26

For the maximum profit, the number of colour TVs and VCRs that he should respectively stock are

- A 80, 20
- B 20, 80
- C 60, 40
- D None of these

Answer: C

Explanation:

It is given that the maximum cost is 12 lakhs

$1200000 \leq T \times 10000 + V \times 15000$ (Where T is number of TV's and V is number of VCR's)

and as we know $T + V = 100$

By solving the above two equation, we will get $v \leq 40$

We have to keep the no. of VCRs as maximum, as they fetch higher profit than TV, so

$$T = 60$$

$$V = 40$$

Question 27

If the dealer would have managed to get an additional space to stock 20 more items, then for maximizing profit, the ratio of number of VCRs and number of TVs that he should stock is

- A 7 : 3
- B 0
- C 1 : 2
- D None of these

Answer: B

Explanation:

As we know for maximizing profit, Total Revenue = Marginal Cost

i.e. $T \times 10000 + V \times 15000 = 1200000$

and $T + V = 120$

By solving above two equations we will get

$$T = 120$$

$$V = 0$$

Hence ratio will be 0.

Question 28

The maximum profit, in rupees lakh, the dealer can earn from his original stock if he can sell a colour TV at Rs. 12200 and VCR at Rs.18300 is

A 2.64

B 2.49

C 2.72

D 2.87

Answer: A

Explanation:

As from his original costvalues, number of TV's were 60 and VCR's were 40

And now total selling price will be = $12200 \times 60 + 18300 \times 40 = 1464000$

Hence profit = selling price - cost price

$$= 1464000 - 1200000$$

$$= 264000 \text{ rs.}$$

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Instructions

Ghosh Babu has a certain amount of property consisting of cash, gold coins and silver bars. The cost of a gold coin is Rs. 4000 and the cost of a silver bar is Rs. 1000. Ghosh Babu distributed his property among his daughters equally. He gave to his eldest daughter gold coins worth 20% of the total property and Rs. 25000 in cash. The second daughter was given silver bars worth 20% of the remaining property and Rs. 50000 cash. Among the third and fourth daughters, he distributed the remaining gold and silver bars equally both together accounting each for 20% of the property remaining after the previous distribution. He also gave the third and fourth daughters Rs. 25000 more than what the second daughter had received in cash.

Question 29

The amount of property in gold and silver possessed by Ghosh Babu is

A 2,25,000

B 2,75,000

C Rs. 4,25,000

D None of these

Answer: B

Explanation:

The total property consists of cash, gold coins and silver bars.

And ghosh babu gave equal parts to 4 daughters, hence they should have 25% of total property each.

As eldest daughter possess gold coins as 20% worth of total property, so 25000 cash should be equal to 5% of total property.

$$\text{So total property will be} = \frac{25000 \times 100}{5} = 500000$$

Hence property amounting only gold coins and silver bars will be = Total property - Total Cash

$$\text{i.e.} = 500000 - (25000 + 50000 + 75000 + 75000)$$

$$= 2,75,000$$

Question 30

Total property of Ghosh Babu (in Rs.lakh) is

- A 5.0
- B 7.5
- C 10.0
- D 12.5.

Answer: A

Explanation:

The total property consists of cash, gold coins and silver bars.

And Ghosh Babu gave equal parts to 4 daughters, hence they should have 25% of total property each.

As eldest daughter possess gold coins as 20% worth of total property, so 25000 cash should be equal to 5% of total property.

So total property will be = $\frac{25000 \times 100}{5} = 500000$

Question 31

If the ratio of the gold to silver bars that Ghosh Babu had is 7:27, the number of silver bars he has is

- A 90
- B 60
- C 75
- D 135

Answer: D

Explanation:

Let the number of gold bars be 7a and the number of silver bars be 27a.

The total value of the gold and silver bars is 500000 - 225000 = 275000

Therefore, $4000 \times 7a + 1000 \times 27a = 275000$

Or, $55000a = 275000$

Or, $a = 5$

Therefore the number of silver bars with Ghosh Babu is $27a = 135$

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Instructions

The following questions relate to a game to be played by you and your friend. The game consists of a 4 x 4 board (see below) where each cell contains a positive integer. You and your friend make moves alternately. A move by any of the players consists of splitting the current board configuration into two equal halves and retaining one of them. In your moves you are allowed to split the board only vertically and to decide to retain either the left or the right half. Your friend, in his/her moves, can split the board only horizontally and can retain either the lower or the upper half. After two moves by each player a single cell will remain which can no longer be split and the number in that cell will be treated as the gain (in rupees) of the person who has started the game. A sample game is shown below. So your gain is Re.1. With the same initial board configuration as above and assuming that you have to make the first move, answer the following questions.

Initial Board

2	1	2	4
5	1	6	7
9	1	3	2
6	1	8	4

After your move (retain left)

2	1	.	.
5	1		
9	1		
6	1		

After your friends move (retain upper)

2	1	.	.
5	1		

After your move (retain right)

.	1	.	.
	1		

After your friends move (retain lower)

.		.	.
	1		

Question 32

If you choose (retain right) (retain left) in your turns, the best move sequence for your friend to reduce your gain to a minimum will be

- A (retain upper)(retain lower)
- B (retain lower) (retain upper)
- C (retain upper) (retain upper)
- D (retain lower) (retain lower)

Answer: C

Explanation:

After my first move of retaining right board will be like

2	4
6	7
3	2
8	4

Now second person will force me to retain with the lowest value possible i.e. 2 or 3
 So if he retains lower half and i retain with left one (as mentioned) then he can only force me to pick 3.
 Or if he retains upper half and i retain with left one(as mentioned) then he can retain upper half so i will be having minimized profit of 2.
 Hence second person will have moves as "Retain (upper half) and retain (upper half)"

Question 33

If both of you select your moves intelligently then at the end of the game your gain will be

- A Rs.4
- B Rs.3
- C Rs.2

D None of these

Answer: B

Explanation:

After second move i will be having from a quarter cell of board to make a move.

Since left quarters have cells with values 1, Hence i will choose to retain right in my first move so that second person can force my profit to be either 2 or 3 not 1.

So now after my first move of retaining right, we have two quarters

Now intelligently he will make a move to retain with lower half so that at fourth move i can retain with choices of 2 and 3 not 2 and 4.

Question 34

If your first move is (retain right), then whatever moves your friend may select you can always force a gain of no less than

A Rs.3

B Rs.6

C Rs.4

D None of these

Answer: A

Explanation:

After retaining right in first move, second person will have 2 quarters to choose in which minimum value is 2 and 3.

If he retains upper half, i will retain right as to maximize my profit of either 4 or 7.

If he retains lower half, i will retain left as to maximize my profit of either 3 or 8.

Hence whatever he retains, i won't have a profit less than 3.

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Instructions

For the following questions answer them individually

Question 35

The roots of the equation $ax^2 + 3x + 6 = 0$ will be reciprocal to each other if the value of a is

A 3

B 4

C 5

D 6

Answer: D

Explanation:

If roots of given equation are reciprocal to each other than product of roots should be equal to 1.

i.e. $a = 1$

hence $a=6$

Question 36

A car after traveling 18 km from a point A developed some problem in the engine and speed became $\frac{4}{5}$ of its original speed As a result, the car reached point B 45 minutes late. If the engine had developed the same problem after traveling 30 km from A, then it would have reached B only 36 minutes late. The original speed of the car (in km per hour) and the distance between the points A and B (in km.) is

- A 25, 130
- B 30, 150
- C 20, 90
- D None of these

Answer: D

Explanation:

Time difference, when second time car's engine failed at a distance of 30 km., is of 9 min.

Hence putting this in equation:

$$\frac{12}{5} - \frac{12}{v} = \frac{9}{60} \text{ hr. (Because difference of time is considered with extra travelling of 12 km. in second case)}$$

We will get $v(\text{velocity}) = 20 \text{ km/hr.}$

Now for distance $\frac{d-18}{16} + \frac{18}{20} - \frac{d}{20} = \frac{45}{60} \text{ hr. (As car is 45 min. late after engine's failure in first case)}$

So $d = 78 \text{ km.}$

Hence none of these will be our answer.

Question 37

A, B and C individually can finish a work in 6, 8 and 15 hours respectively. They started the work together and after completing the work got Rs.94.60 in all. When they divide the money among themselves, A, B and C will respectively get (in Rs.)

- A 44, 33, 17.60
- B 43, 27, 20, 24.40
- C 45, 30, 19.60
- D 42, 28, 24.60

Answer: A

Explanation:

Money will be distributed in the ratio of work done in an hour.

$$\text{i.e. } \frac{1}{6} : \frac{1}{8} : \frac{1}{15}$$

or 20:15:8

$$\text{Hence part of A will be} = \frac{20}{43} \times 94.6 = 44$$

$$\text{part of B will be} = \frac{15}{43} \times 94.6 = 33$$

$$\text{part of C will be} = \frac{8}{43} \times 94.6 = 17.60$$

Important Verbal Ability Questions for CAT (Download PDF)

Question 38

Two trains are traveling in opposite direction at uniform speed 60 and 50 km per hour respectively. They take 5 seconds to cross each other. If the two trains had traveled in the same direction, then a passenger sitting in the faster moving train would have overtaken the other train in 18 seconds. What are the lengths of trains (in metres)?

- A 112.78
- B 97.78, 55
- C 102.78, 50
- D 102.78, 55

Answer: C

Explanation:

let's l_s is length of slower train and l_f is length of faster train.

So according to second condition when two trains are moving in same direction

$l_s = v_{fs} \times t$ (where v_{fs} is relative velocity of faster train w.r.t. slower train and t is time taken to cross it)

$$\text{or } l_s = \frac{(60-50) \times 5}{18} \times 18 = 50 \text{ meter}$$

Only option which has length of slower train as 50 is C.

Question 39

N the set of natural numbers is partitioned into subsets $S_1 = (1)$, $S_2 = (2, 3)$, $S_3 = (4, 5, 6)$, $S_4 = (7, 8, 9, 10)$ and so on. The sum of the elements of the subset S_{50} is

- A 61250
- B 65525
- C 42455
- D 62525

Answer: D

Explanation:

According to given question S_{50} will have 50 terms

And its first term will be 50th number in the series 1,2,4,7,..... T_{50}

$$T_1 = 1$$

$$T_2 = 1 + 1$$

$$T_3 = 1 + 1 + 2$$

$$T_4 = 1 + 1 + 2 + 3$$

$$T_n = 1 + (1 + 2 + 3 + 4 + 5 \dots (n-1))$$
$$= 1 + \frac{n(n-1)}{2}$$

$$\text{So } T_{50} = 1 + 1225 = 1226$$

$$\text{Hence } S_{50} = (1226, 1227, 1228, 1229, \dots)$$

$$\text{And summation will be } = \frac{50}{2} (2 \times 1226 + 49 \times 1) = 62525$$

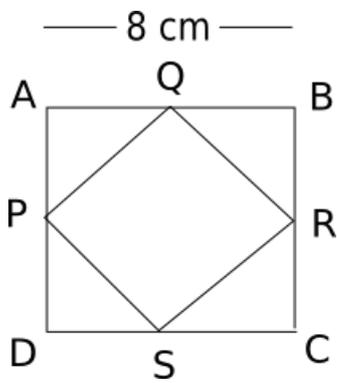
Question 40

A square is drawn by joining the midpoints of the sides of a given square. A third square is drawn inside the second square in the same way and this process is continued indefinitely. If a side of the first square is 8 cm, the sum of the areas of all the squares such formed (in sq.cm.) is

- A 128
- B 120
- C 96
- D None of these

Answer: A

Explanation:



Side of first square = 8cm.

Side of second square made by joining mid-points of first square = $\frac{8}{\sqrt{2}}$

Similarly side of third square = $\frac{8}{\sqrt{2} \times \sqrt{2}}$ and so on.

Now summation of areas will be $8^2 + (\frac{8}{\sqrt{2}})^2 + (\frac{8}{\sqrt{2} \times \sqrt{2}})^2 + \dots$

or $8^2(1 + \frac{1}{2} + \frac{1}{4} + \frac{1}{8} + \dots)$

or $64 \times (\frac{1}{1-\frac{1}{2}})$ (As we know sum of an infinite G.P. is $\frac{a}{1-r}$ where a is first term and r is common ratio)

or 128 sq. cm.

CAT Percentile Predictor

Instructions

The pages of a book are numbered 0, 1, 2 . upto M, $M > 0$. There are four categories of instructions that direct a person in positioning the book at a page. The instruction types and their meanings are :

1. OPEN : Position the book at page No. 1
2. CLOSE : Position the book at page No. 0
3. FORWARD, n : From the current page move forward by n pages; if, in this process, page number M is reached, stop at M.
4. BACKWARD, n : From the current page, move backward by n pages; if in this process, page number 0 is reached, stop at page number 0.

In each of the following questions, you will find a sequence of instructions formed from the above categories. In each case, let n_1 be the page number before the instructions are executed and n_2 be the page number at which the book is positioned after the instructions are executed.

Question 41

FORWARD, 25 ; BACKWARD, 10. which of the following statements is true?

- A $n_1 = n_2$ if $M=10$ and $n_1 = 0$
- B $M = 20$ provided $n_1 > 0$
- C $n_1 > 30$ provided $M = 900$
- D $n_1 = 37$ provided $M = 25$

Answer: A

Explanation:

Option B and C are irrelevant and in option D, n_1 should be 0

Hence option A will be our answer as n_1 is the value before instruction as 0 and n_2 is value after instructions which is also 0.

Question 42

BACKWARD, 5; FORWARD, 5. Which of the following statements is true about the above set of instructions?

- A $n_1 = n_2$ provided $n_1 \geq 5$
- B $n_1 = n_2$ provided $n_1 > 0$
- C $n_2 = 5$ provided $M > 0$
- D $n_1 > n_2$ provided $M > 0$

Answer: A

Explanation:

In option A, $n_1 \geq 5$ which is before instruction value so after going 5 backward and 5 forward value of n_2 will remain equal to n_1

So our answer will be A as other options have insufficient information

Question 43

FORWARD, 10; FORWARD, 10. Which of the following statements about the above instructions is true?

- A $n_2 - n_1 = 20$ only if $n_1 = 0$
- B $n_2 - n_1 = 20$ if $M > 20$ and $n_1 = 1$
- C $n_2 - n_1 = 10$ if $M = 21$ and $n_1 = 0$
- D $n_2 > n_1$ if $M > 0$

Answer: B

Explanation:

Let's consider each statement one by one

A) Suppose $M=50, n_1=5$

In this case, $n_2 = 5 + 10 + 10 = 25$. Hence, $n_2 - n_1 = 20$ even though $n_1 \neq 0$. Hence, statement A is false.

B) Suppose $M=21$ and $n_1=1$

In this case, $n_2 = 1 + 10 + 10 = 21$. Hence, $n_2 - n_1 = 20$. Thus, if $M > 20$ then this statement is true.

If $M = 19$

In this case, the process stops when M is reached. Hence, $n_2=19$ and $n_2 - n_1 = 18$. Hence, option B is true.

C) As we have seen earlier, $n_2 - n_1 = 20$ in this case. Hence, option C is false.

D) Suppose $n_1 = M$. In this case, $n_2 = n_1$. Hence, option D is false.

About CAT exam

Question 44

FORWARD, 5; BACKWARD, 4. Which of the following statements about the above instructions is true?

- A $n_2 = n_1 + 4$ Provided $1 < n_1 < 7$
- B $n_2 = n_1$ provided $M < 6$
- C $n_2 = n_1 + 1$ provided $M - n_1 > 5$
- D $n_2 - n_1 < 0$ provided $M > 0$

Answer: C

Explanation:

For option A, put $n_1 = 1$, then n_2 will be 2, hence equation won't hold true.

Now for option B, if we say $M = 5$, then n_1 will be 0 and n_2 will be 1, hence equation won't hold true.

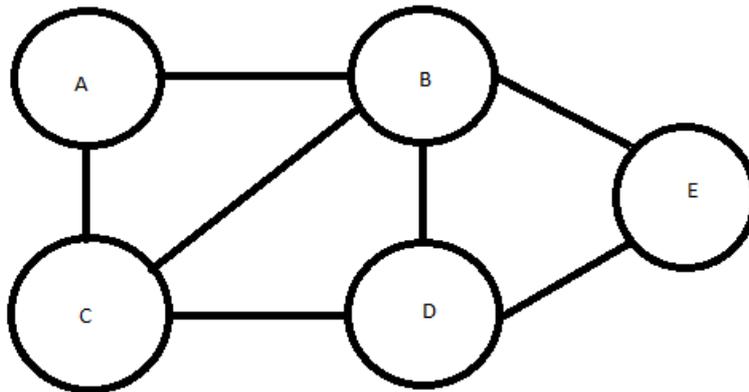
And equation in option D will not hold true too as put $M = 5$, then n_1 will be 0 and n_2 will be 1.

Now in option C, equation is valid as put $n_1 = 1$, then n_2 will be 2. Which is holding the equation valid too.

Hence our answer will be C.

Instructions

There are 5 cities, A, B, C, D and E connected by 7 roads as shown in the figure below:



Design a route such that you start from any city of your choice and walk on each of the 7 roads once and only once, not necessarily returning to the city from which you started.

Question 45

For a route that satisfies the above restrictions, which of the following statements is true?

- A There is no route that satisfies the above restriction.
- B A route can either start at C or end at C, but not both.
- C D can be only an intermediate city in the route.
- D The route has to necessarily end at E.

Answer: B

Explanation:

We can start from either city C or D.

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

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

We cannot start from any other city.

So, we can either start from C or end at C but not both.

Question 46

How many different starting cities are possible such that the above restriction is satisfied?

- A one
- B zero

C three

D two

Answer: D

Explanation:

We can start from either city C or D.

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

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

We cannot start from any other city.

Free CAT Doubt Solving Group

Instructions

For the following questions answer them individually

Question 47

If $xy + yz + zx = 0$, then $(x + y + z)^2$ equals

A $(x + y)^2 + xz$

B $(x + z)^2 + xy$

C $x^2 + y^2 + z^2$

D $2(xy + yz + xz)$

Answer: C

Explanation:

$$(x + y + z)^2 = x^2 + y^2 + z^2 + 2(xy + yz + xz)$$

as $xy + yz + xz = 0$

so equation will be resolved to $x^2 + y^2 + z^2$

Question 48

If equal numbers of people are born on each day, find the approximate percentage of the people whose birthday will fall on 29th February. If we are to consider people born in 20th century (1901-2000) and assuming no deaths.

A 0.374

B 0.5732

C 0.0664

D None of these

Answer: D

Explanation:

Assume one person is born every day. In 100 years, there will be 25 leap years. So 25×1 additional people will be born on these days.

So, total people born will be = $365 \times 100 \times 1 + 25 \times 1$

And people born on 29th february = 25×1

Hence percentage will be = $\frac{25 \times 1}{365 \times 100 \times 1 + 25 \times 1} \times 100 = 0.0684$

Question 49

I brought 30 books on Mathematics, Physics, and Chemistry, priced at Rs.17, Rs.19, and Rs.23 per book respectively, for distribution among poor students of Standard X of a school. The physics books were more in number than the Mathematics books but less than the Chemistry books, the difference being more than one. The total cost amounted to Rs.620. How many books on Mathematics, Physics, and Chemistry could have been bought respectively?

- A 5, 8, 17
- B 5, 12, 13
- C 5, 10, 15
- D 5, 6, 19

Answer: C

Explanation:

As it is mentioned that difference in number of books is more than one
Hence option B and D are cancelled.

Now total amount is = $620 = 17M + 19P + 23C$

we can check by putting values from option A and C.

Option C satisfies the above eq.,Hence our answer will be C

Know the CAT Percentile Required for IIM Calls

Question 50

The last time Rahul bought Diwali cards, he found that the four types of cards that he liked were priced Rs.2.00, Rs.3.50, Rs.4.50 and Rs.5.00 each. As Rahul wanted 30 cards, he took five each of two kinds and ten each of the other two, putting down the exact number of 10 rupees notes on the counter payment. How many notes did Rahul give?

- A 8
- B 9
- C 10
- D 11

Answer: D

Explanation:

According to question Rahul put exact number of 10 rs. notes, hence total price will be a multiple of 10.

And Rahul wants 30 cards, where he took 5 each of two kind and 10 each of other two kind.

So summation of (price of one type card multiplied by number of that type of card) should be a multiple of 10.

By looking at the prices of cards and to make the sum a multiple of 10, we can say that two 5 cards were of rs. 3.5 and 4.5 and two 10 cards were of prices 2 rs.and 5 rs each respectively.

Hence total sum will be $5 \times (3.5+4.5) + 10 \times (2+5) = 110$

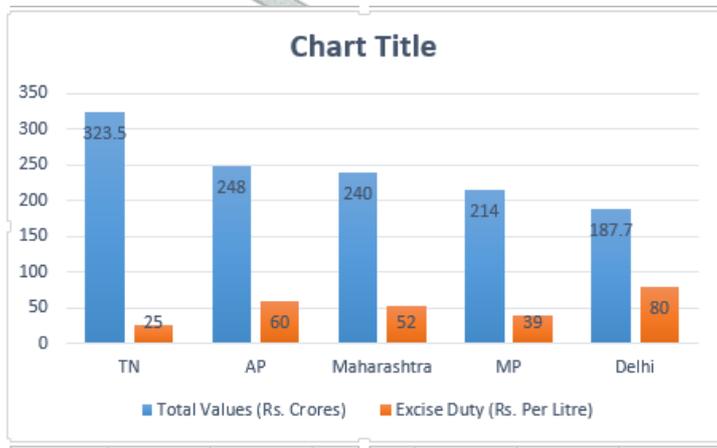
So rahul gave 11 notes of 10 rs.

How to prepare for Verbal Ability for CAT

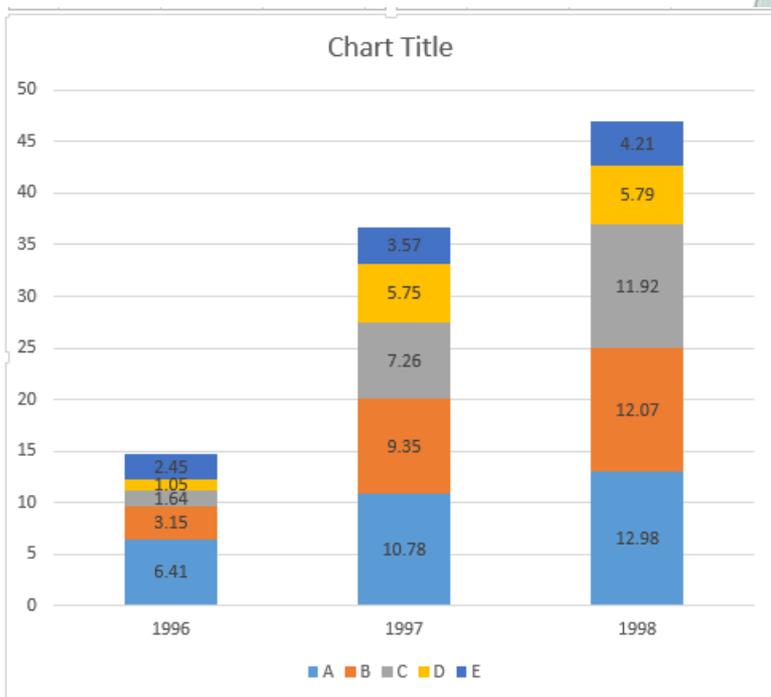
DI and LR

Instructions

The following graph shows the value of liquor supplied by the 5 states in 1996 and the excise duty rates in each state.



Amount of liquor supplied in Tamil Nadu Distilleries A, B, C, D, E (from bottom to top) in lakh litres.



Question 51

What is the lowest percentage difference in the excise duty rates for any two states?

- A 12
- B 15
- C 20
- D 25

Answer: B

Explanation:

The difference in the excise duty as a percentage is least amongst AP and Maharashtra and it equals $(60-52)/52 * 100$
 This equals $8/52 * 100 = 200/13 = 15.38\%$ which is approximately equal to 15%

How to prepare for Data Interpretation for CAT

Question 52

Which of the five states manufactured liquor at the lowest cost?

- A Tamil Nadu
- B Delhi
- C The states which has the lowest value for (wholesale price-Excise duty) per litre
- D Cannot be determined.

Answer: D

Explanation:

In the question we are only provided with the data of five states. We don't know the excise duty rates for other states. Thus, the answer cannot be determined.

Question 53

If Excise duty is levied before the goods leave the factory (on the value of the liquor), then which of the following choices shows distilleries in ascending order of the excise duty paid by them for the year 1996? (Assume the total liquor in TN is supplied by only these 5 distilleries).

- A ECABD
- B ADEBC
- C DCEBA
- D Cannot be determined.

Answer: C

Explanation:

We know that the Excise duty is levied on the total value of liquor produced by the 5 distilleries. Since the excise duty remains constant, the excise duty will be in the same order as the order of the amount of the liquor produced by them. Thus, the correct order is DCEBA.

Question 54

If the Tamil Nadu distillery, with the least average simple annual growth in amount of liquor supplied in the given period had shown the same rate of growth as the one which grew fastest, what would that company's supply have been in 1998, in lakh liters?

- A 13
- B 15.11
- C 130
- D Cannot be determined.

Answer: B

Explanation:

Average simple annual growth of the distilleries are-

- A-> $\frac{12.89-6.41}{2 \times 6.41} \times 100 = 50.54\%$
- B-> $\frac{12.07-3.15}{2 \times 3.15} \times 100 = 141.58\%$
- C-> $\frac{11.92-1.64}{2 \times 1.64} \times 100 = 313.41\%$
- D-> $\frac{5.79-1.05}{2 \times 1.05} \times 100 = 225.71\%$
- E-> $\frac{4.21-2.45}{2 \times 2.45} \times 100 = 35.91\%$

We can see that the highest growth rate was in C and lowest in E.
So, if E would have grown by 313.41% in 2 years, its supply would have been-

$$\frac{2.45 \times 313.41 \times 2}{100} = 15.11 \text{ lts}$$

How to prepare for Logical Reasoning for CAT

Instructions

For the following questions answer them individually

Question 55

Saira, Mumtaz and Zeenat have a ball, a pen and a pencil, and each girl has just one object in hand. Among the following statements, only one is true and the other two are false.

- I. Saira has a ball.
- II. Mumtaz does not have the ball.
- III. Zeenat does not have the pen.

Who has the ball?

- A Saira
- B Mumtaz
- C Zeenat
- D Cannot be determined

Answer: B

Explanation:

Assume the first statement is true. So, Saira has the ball. The other two statements are false. But if Saira has the ball, the statement that Mumtaz does not have the ball is true. But that statement should be false. Therefore, the first statement cannot be true.

Assume the second statement is true. So, Mumtaz does not have the ball. Also, since the other two statements are false, Saira also does not have the ball. So, Zeenat has the ball. But the third statement "Zeenat does not have a pen" becomes true in this case, which is incorrect. So, the second statement also cannot be true.

The only possibility is the statement has to be true. So, the second statement is false => Mumtaz has the ball.

Question 56

Albert, David, Jerome and Tommy were plucking mangoes in a grove to earn some pocket money during the summer holidays. Their earnings were directly related to the number of mangoes plucked and had the following relationship: Jerome got less money than Tommy. Jerome and Tommy together got the same amount as Albert and David taken together. Albert and Tommy together got less than David and Jerome taken together. Who earned the most pocket money? Who plucked the least number of mangoes?

- A David, Jerome
- B David, Albert
- C Jerome, Tommy
- D Jerome, Albert

Answer: B

Explanation:

According to given question Jerome + Tommy = Albert + David eq.(1) ; Jerome < Tommy eq. (3)

$$\text{Albert} + \text{Tommy} < \text{David} + \text{jerome eq. (2)}$$

Now adding above two equations we will get

$$2\text{David} > 2\text{Tommy}$$

$$\text{or David} > \text{Tommy}$$

$$\text{or Tommy} > \text{Jerome} > \text{Albert (from eq.(3))}$$

Now David should earn most pocket money as to hold equation (2) to be true.

Hence David > Tommy > Jerome > Albert.

Question 57

I happened to be the judge in the all India Essay Competition on Nylon Dying, organized some time back by a dyestuff firm. Mill technicians were eligible to enter the competition. My work was simplified in assessing the essays, which had to be done under five heads-Language, Coherence, Subject Matter, Machinery and Recent Developments. Integral marks were to be given out of a maximum of 20 under each head. There were only five entries. The winner got 90 marks. Only a single person can be made the winner. Akhila got 13 in Coherence and Divya 10 in Machinery. Bhanu's total was less than Akhila's. Charulata has sent an entry. Ela had got as many marks as Divya. None got 20 under any head. Who was the winner?

- A Divya
- B Charulata
- C Ela
- D Bhanu

Answer: B

Explanation:

Names	Language	Coherence	Subject-Matter	Machinery	Recent-develop.
Akhila		13			
Bhanu					
Charulata					
Divya				10	
Ela					

Given informations are as follows:

Akhila got 13 marks in coherence and divya got 10 marks in Machinery

Divya's marks = Ela's Marks (Hence they both are not winners as winner is only one)

Bhanu's marks < Akhila's marks (Hence bhanu is also not a winner)

So winner will be either Akhila or Charulata

As Akhila got 13 marks in coherence so she must have 20 marks in some head as highest marks are 90

That's why winner will be Charulata.

How to prepare for Quantitative aptitude for CAT

Instructions

Refer to the following Bar-chart and answer the questions that follow :



Question 58

What is the average value of the contract secured during the years shown in the diagram?

- A Rs. 103.48 crore
- B Rs. 105 crore
- C Rs. 100 crore
- D Rs. 125.2 crore

Answer: A

Explanation:

Average of numbers 100.5, 67, 141, 143.9 and 65 will be

$$100 + \frac{41+0.5+43.9-33-35}{5} = 103.48$$

Question 59

Compared to the performance in 1985 (i.e. taking it as the base), what can you say about the performances in the years '84, '85, '86, '87, '88 respectively, in percentage terms?

- A 150, 100, 211, 216, 97
- B 100, 67, 141, 144, 65
- C 150, 100, 200, 215, 100
- D 120, 100, 220, 230, 68

Answer: A

Explanation:

Base value must be taken as 100 => 1985 is 100

$$1984 \Rightarrow \frac{100.5}{67} * 100 = 150$$

$$1986 \Rightarrow \frac{141}{67} * 100 = 211$$

Only option A has the same values => Option A is the answer

Question 60

Which is the year in which the highest percentage decline is seen in the value of contract secured compared to the preceding year?

- A 1985
- B 1988
- C 1984
- D 1986

Answer: B

Explanation:

Decline occur in years 1985 and 1988 respectively.

In year 1985, decline was nearly 33%

Whether in year 1988 decline was nearly 54%

Hence answer will be B.

Instructions

The table below shows the estimated cost (in Rs. Lakh) of a project of laying a railway line between two places.

	1988	1989	1990	1991
Surveying	41.5	7.5	2.2	0.5
Cement	----	95	80	75
Steel	----	70	45	60
Bricks	----	15	12	16
Building materials	----	25	18	21
Labour	2.1	25	20	18
Administration	7.5	15	15	14
Contingencies	1	15	4.2	5
Total	52.1	267.5	196.4	209.5

Question 61

The total expenditure is required to be kept within Rs. 700 lakh by cutting the expenditure on administration equally in all the years. What will be the percentage cut for 1989?

- A 22.6
- B 32.6
- C 42.5
- D 52.6

Answer: C

Explanation:

Total expenditure is = $52.1 + 267.5 + 196.4 + 209.5 = 725.5$

So 25.5 will be cut off on administration equally in all years.

Hence in 1989 cut off will be $\frac{25.5}{4} = 6.375$

Percentage cut off will be = $\frac{6.375}{15} \times 100 = 42.5$

Question 62

If the length of line to be laid each year is in proportion to the estimated cost for material and labour, what fraction of the total length is proposed to be completed by the third year?

- A 0.9
- B 0.7
- C 0.6
- D 0.3

Answer: B

Explanation:

	1988	1989	1990	1991	
Cements	-	95	80	75	
Steel	-	70	45	60	
Bricks	-	15	12	16	
Building Materials	-	25	18	21	
Labour	2.1	25	20	18	
Total	2.1	230	175	190	=597.1

Till third year expense was 407.1 and total expenditure is 597.1

So ratio will be $\frac{407.1}{597.1} = 0.7$

That will be fraction of length which is supposed to be completed by third year

Question 63

What is the approximate ratio of the total cost of materials for all the years bear to the total labour cost?

- A 4 : 1
- B 8 : 1
- C 12 : 1
- D 16 : 1

Answer: B

Explanation:

	1988	1989	1990	1991	
Cements	-	95	80	75	=250
Steel	-	70	45	60	=175
Bricks	-	15	12	16	=43
Other Building Materials	-	25	18	21	=64
Labour	2.1	25	20	18	=65.1
Total	2.1	230	175	190	=597.1

Total material for all the years will be = 250+175+43+64 = 532

Total labour cost for all the years = 65.1

Hence ratio will be $\frac{65.1}{532}$ nearly equal to 8:1.

Data Interpretation for CAT Questions (download pdf)

Question 64

If the cost of materials rises by 5% each year from 1990 onwards, by how much will the estimated cost rise?

- A Rs. 11.45 lakh
- B Rs. 16.35 lakh
- C Rs.21.45 lakh
- D Rs.26.45 lakh

Answer: B

Explanation:

In the year 1990, total increment will be $4+2.25+0.6+0.9 = 7.75$
And in the year 1991, total increment be $3.75+3+0.8+1.05=8.60$
Hence total increase in estimated cost will be = 16.35 Lakhs

Question 65

It is found at the end of 1990, that the entire amount estimated for the project has been spent. If for 1991, the actual amount spent was equal to that which was estimated, by what percent (approximately) has the actual expenditure exceeded the estimated expenditure?

- A 39
- B 29
- C 19
- D 9

Answer: B

Explanation:

It is said that till 1990, all estimated cost has been spent i.e. 725.5
Then 209.5 is spent in the year 1991. Hence, that will be exceeding the cost.
So percentage increase will be = $\frac{209.5}{725.5} \times 100 = 29$

Question 66

After preparing the estimate, the provision for contingencies is felt inadequate and is therefore doubled. By what percent does the total estimate increase?

- A 3.47
- B 2.45
- C 1.50
- D 3.62

Answer: A

Explanation:

Total estimated cost before increment = $52.1+267.5+196.4+209.5 = 725.5$
Increment in contingencies will be = 25.2
Hence, total estimated cost will also be increased with the same amount.
So percentage increment in total estimated cost will be = $\frac{25.2}{725.5} \times 100 = 3.47$

Logical Reasoning for CAT Questions (download pdf)

Instructions

The first table gives the number of saris (of all the eight colours) stocked in six regional showrooms. The second gives the number of saris (of all the eight colours) sold in these six regional showrooms. The third table gives the percentage of saris sold to saris stocked for each colour in each region. The fourth table gives the percentage of saris of a specific colour sold within that region. The fifth table gives the percentage of saris of a specific colour sold across all the regions. Study the tables and for each of the following questions, choose the best alternative.

Table 1

Region	Blue	Green	Magneta	Brown	Orange	Red	Violet	Yellow	Total
1	267	585	244	318	132	173	195	83	1994
2	341	480	99	199	234	119	200	109	1781
3	279	496	107	126	100	82	172	106	1468
4	198	307	62	221	65	96	124	91	1164
5	194	338	120	113	82	60	125	124	1156
6	158	261	133	104	71	158	128	82	1095
Total	1437	2454	765	1081	684	688	944	595	8658

Table 2

Region	Blue	Green	Magneta	Brown	Orange	Red	Violet	Yellow	Total
1	122	164	71	165	40	84	97	45	788
2	124	200	37	78	67	47	73	50	676
3	21	57	7	24	9	14	20	11	163
4	79	85	22	164	18	46	43	54	511
5	29	36	22	17	9	18	19	16	166
6	1	3	2	2	1	3	2	4	18
Total	376	545	161	450	144	212	254	180	2322

Table 3

Region	Blue	Green	Magneta	Brown	Orange	Red	Violet	Yellow	Total
1	46	28	29	52	30	49	50	54	40
2	36	42	37	39	29	39	37	46	38
3	8	11	7	19	9	17	12	10	11
4	40	28	35	74	28	48	35	59	44
5	15	11	18	15	11	30	15	13	14
6	1	1	2	2	1	2	2	5	2
Total	26	22	21	42	21	31	27	30	

Table 4

Region	Blue	Green	Magneta	Brown	Orange	Red	Violet	Yellow	Total
1	15	21	9	22	4	11	12	6	100
2	18	30	5	12	10	7	11	7	100
3	13	35	4	15	6	9	12	7	100
4	15	17	4	32	4	9	8	11	100
5	17	22	13	10	5	11	11	10	100
6	6	14	11	11	6	17	11	22	100

Table 5

Region	Blue	Green	Magenta	Brown	Orange	Red	Violet	Yellow
1	32	30	44	37	28	40	38	25
2	33	37	23	17	47	22	29	28
3	6	10	4	5	6	7	8	6
4	21	16	14	36	13	22	17	30
5	8	7	14	4	6	8	7	9
6	0	1	1	0	1	1	1	2
Total	100	100	100	100	100	100	100	100

Question 67

Which region-colour combination accounts for the highest percentage of sales to stock?

- A (1, Brown)
- B (2, Yellow)
- C (4, Brown)
- D (5, Red)

Answer: C

Explanation:

Sales to stock percentage values are given in table 3
And at region 4, Brown colour, percentage is maximum compared to all.
Hence answer will be C

Question 68

Which colour is the most popular in region1?

- A Blue
- B Brown
- C Green
- D Violet

Answer: B

Explanation:

As the most popular colours will have more sale than any other colour
Since table 2 gives us value of sales, Brown colour in region 1 has maximum no. of sales
Hence, our answer will be Brown.

Question 69

Which region sold the maximum percentage of magenta saris out of the total sales of magenta saris?

- A 3
- B 4
- C 2
- D 1

Answer: D

Explanation:

Since table 2 gives us the sales values of saris
Hence, for the magenta sari, Region1 has the maximum number of sales out of total magenta sales.
I.e. 71 out of 161.

Quantitative Aptitude for CAT Questions (download pdf)

Question 70

Out of its total sales, which region sold the minimum percentage of green saris?

- A 1
- B 6

C 4

D 2

Answer: B

Explanation:

As table 2 has values regarding number of sales of saris

Hence, for green saris, region 6 has the lowest number of sales out of total sales of green saris.

i.e. 3 out of 545

Question 71

In which region is the maximum percentage of blue saris sold?

A 2

B 3

C 1

D 4

Answer: A

Explanation:

From Table 5, we can see that out of all the regions, the maximum number of blue saris were sold in region 2

Instructions

The table below gives the achievements of Agricultural Development Programmes from 1983 - 84 to 1988 - 89. Study the following table and for each of the following questions, choose the best alternative.

Programme	83-84	84-85	85-86	86-87	86-87	87-88	88-89
-----------	-------	-------	-------	-------	-------	-------	-------

Irrigation (Cumulative in Million Hectares)

Major and Medium	22.05	22.7	23.2	24	24.6	25.32
Minor	28.6	32.77	32.77	34.2	34	35.14

High yielding varieties (Million Hectares)

1	Paddy	16.9	18.2	19.7	18.7	21.7	22.8
2	Wheat	15.9	16.1	16.8	17.8	19.4	19.1
3	Jowar	3.1	3.5	3.9	4.4	5.3	5.1
4	Bajra	2.9	3.6	4.6	4.7	5.4	5.2
5	Maize	1.4	1.6	1.6	1.7	1.9	2

Consumption of chemical fertilizers

1. Nitrogen	3.42	3.68	4.07	4.22	5.2	5.49
2. Phosphate	1.11	1.21	1.32	1.44	1.73	1.89
3. Potash	0.59	0.62	0.67	0.73	0.78	0.84

Gross Cropped area (Million hectares)

174.8	173.1	177	172.6	180.4	187.8
-------	-------	-----	-------	-------	-------

Question 72

The consumption of chemical fertilizer per hectare of gross cropped area is lowest for the year

- A 1984 - 85
- B 1985 - 86
- C 1986 - 87
- D 1987 - 88

Answer: A

Explanation:

Year	Consumption of chemical fertilizers	Gross cropped area	Ratio
84-85	$(3.68+1.21+0.62) = 5.51$	173.1	0.0318
85-86	$(4.07+1.32+0.67) = 6.60$	177	0.0372
86-87	$(4.22+1.44+0.73) = 6.39$	172.6	0.037
87-88	$(5.20+1.73+0.78) = 7.71$	180.4	0.0427

Hence, the lowest ratio will be for 84-85.

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Question 73

In which year does the area cropped under high yielding varieties show a decline for the maximum number of crops?

- A 1988 - 89
- B 1985 - 86
- C 1986 - 87
- D None of these

Answer: A

Explanation:

The answer is 1988-89 as there were three crops which declined during this period: Wheat, Jowar, Bajra.

Question 74

How much area, in million hectares, was brought under irrigation during the year 1986-87?

- A 58.20
- B 1.43
- C 0.80
- D 2.23

Answer: D

Explanation:

In Major and Medium = $24 - 23.2 = 0.8$ million hectares

In Minor = $34.2 - 32.77 = 1.43$ million hectares

In total, 2.23 million hectares.

Question 75

It is possible that a part of the minor irrigated area is brought under major and medium areas. In which year has this definitely happened?

- A 1984 - 85
- B 1985 - 86
- C 1986 - 87
- D 1987 - 88

Answer: D

Explanation:

There is a decrease in the area of minor irrigation land in 1987-88.

Hence, during this year land is brought into major irrigation area.

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Verbal

Instructions

For the following questions answer them individually

Question 76

Fill in the Blanks: The _____, those cellular bodies which contain the _____ particles, the genes, provide us with basic facts of genetic transmission.

- A protoplasm, microscopic
- B globules, fat
- C cytoplasm, minute
- D chromosomes, hereditary

Answer: D

Explanation:

Among the options, the only word that is applicable in the second blank is 'hereditary', because that is what 'genes' are associated with.

Option d) is the correct answer.

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Question 77

Fill in the Blanks: The insurance claim was _____ by the relevant documents

- A sustained
- B backed out
- C backed up
- D proved

Answer: C

Explanation:

A claim should be supported by relevant documents.

The phrasal verb to be used in this context is 'backed up', which means 'supported'.

Option c) is the correct answer.

Question 78

Fill in the Blanks: I should not have _____ to talk in such a _____ strain especially when I had not studied the man to whom I was talking.

- A daring, commanding
- B try, bold
- C ventured, peremptory
- D emboldened, reckless

Answer: C

Explanation:

The word in the first blank should be a verb in the past tense. This rules out options a) and b). The meaning of 'peremptory' is 'insisting on immediate obedience or attention'. This is a better fit in the second blank compared to 'reckless'. Option c) is the correct answer.

Question 79

Fill in the Blanks: High prices are often the _____ of _____ of goods

- A accompaniment, dearth
- B concomitant, scarcity
- C cause, destitution
- D result, glut

Answer: A

Explanation:

The sentence is trying to convey the idea that high prices often accompany a scarcity of goods. From the options, the best combination of words in this context is 'accompaniment' and 'dearth', which means 'scarcity'. Option a) is the correct answer.

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Question 80

Fill in the Blanks: The recent disturbances in the country will _____ and peace will be restored.

- A blow past
- B blow over
- C pass through
- D come to pass

Answer: B

Explanation:

The correct phrasal verb that should be used in this context is 'blow over', which means 'fade away without any serious consequences'. Option b) is the correct answer.

Question 81

Choose from among the given alternatives the one which will be a suitable substitute for the expression in quotes. The "marriage of the princess with the commoner" caused a furore among the royalty.

- A mesalliance
- B misalliance
- C elopement
- D romance

Answer: B

Explanation:

An alliance is an association or organization formed between two parties for the mutual benefit of each other. In this case, the sentence is trying to convey the idea that the alliance is not working. In other words, it is a 'misalliance'. Option b) is the correct answer.

Question 82

Choose from among the given alternatives the one which will be a suitable substitute for the expression in quotes. The victim's "involuntary responses to stimulus" proved that he was still living.

- A reactions
- B reflexes
- C feedback
- D communication

Answer: B

Explanation:

An involuntary response to a stimulus is called a reflex. So, the word that best replaces the phrase is 'reflexes'. Option b) is the correct answer.

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Question 83

Choose from among the given alternatives the one which will be a suitable substitute for the expression in quotes. "The art and science of good eating and drinking is now a lost art".

- A Gastronomy
- B Osteopathy
- C Gluttony
- D Cooking

Answer: A

Explanation:

Gastronomy is the study of food and culture. This word fits well in the given context. Option a) is the correct answer.

Question 84

Choose from among the given alternatives the one which will be a suitable substitute for the expression in quotes. The thrilling narrative caused "the hair on the skin to stand erect".

- A tension
- B horrification
- C terror
- D horror

Answer: D

Explanation:

The sentence is conveying the idea that the thrilling narrative caused an intense feeling of fear among the audience. In other words, it cause horror among the audience. Option d) is the correct answer.

Question 85

Choose from among the given alternatives the one which will be a suitable substitute for the expression in quotes. "The body of Macedonian infantry drawn up in close order" was like a formidable castle of steel.

- A phalanx
- B phagocyte
- C phenomenon
- D phaeton

Answer: A

Explanation:

A phalanx is a rectangular military formation, usually composed of heavy infantry. This is the most suitable word in the context. Option a) is the correct answer.

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Question 86

Which of the following four sentence is grammatically correct?

- A The Excel Company has greatly enhanced it's advertising expense.
- B The Excel Company has greatly increased its advertising expense.
- C The Excel Company has greatly enhanced its advertising expense.

D The Excel Company has greatly increased it's advertising expense.

Answer: B

Explanation:

It's is a concise way of writing 'it is'. We can rule out options a) and d) because of this. The meaning of 'enhance' is 'increase the quality of'. However, in this sentence, there is only an increase in expense. So, 'increase' is a more suitable word in this context. Option b) is the correct answer.

Question 87

Which of the following four sentence is grammatically correct?

A Today we love, what tomorrow we hate; today we seek, what tomorrow we shun, today we desire, what tomorrow we fear.

B Today, we love what tomorrow we hate, today, we seek what tomorrow we shun, today, we desire what tomorrow we fear.

C Today we love what tomorrow we hate, today we seek what tomorrow we shun, today we desire what tomorrow we fear.

D Today we love what tomorrow we hate; today we seek what tomorrow we shun; today we desire what tomorrow we fear.

Answer: D

Explanation:

The sentence is talking about three things. There is no need of commas within each part of the sentence. We can rule out options a) and b). The three parts of the sentence are independent clauses, so they are best separated by a semi-colon. Option d) is the correct answer.

Question 88

Which of the following four sentence is grammatically correct?

A There's Mr. Som, whom they say is the best singer in the country.

B There's Mr. Som, who they say is the best singer in the country.

C There is Mr. Som, whom they say is the best singer in the country.

D There is Mr. Som who, they say is the best singer in the country.

Answer: B

Explanation:

A comma is needed after the name of the person. Also, 'who' is used while referring to the subject of the sentence. Both these requirements are satisfied in option b).

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Question 89

Which of the following four sentence is grammatically correct?

A I am not one of those who believe everything they hear.

B I am not one of those who believes everything I hear.

C I am not one of those who believes everything he hears.

D I am not one of those who believes in everything one hears.

Answer: A

Explanation:

Here the author mentions the category of people who believe everything they hear. The people in this category are plural. Hence "believe" should be the correct usage rather than "believes."

Question 90

Which of the following four sentence is grammatically correct?

- A The Board of Directors will hold its next meeting in July.
- B The Board of Directors will hold it's next meeting in July.
- C The Board of Directors shall hold the next meeting in July.
- D The Board of Directors shall hold it's next meeting in July.

Answer: A

Explanation:

'The Board of Directors' is a collective noun. So, it takes the singular verb 'its'. It's is an incorrect usage in this context because it actually means 'it is'. Option a) is the correct answer.

Question 91

Which of the following four sentence is grammatically correct?

- A The state of his affairs were such as to cause anxiety to his creditors.
- B The state of his affairs was such as to cause anxiety to his creditors.
- C The state of his affair were such as to cause anxiety to his creditors.
- D The state of his affairs are such as to cause anxiety to his creditors.

Answer: B

Explanation:

The correct option is B. All other options have subject verb disagreement. The state of his affairs is the main subject which is singular. The correct usage would be "The state of affairs was/is such" which is only mentioned in B.

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Question 92

Which of the following four sentence is grammatically correct?

- A Cannot one do what one likes with one's own?
- B Cannot one do that one likes to do with his own?
- C Cannot one do that one likes with his own?
- D Cannot one do what he likes with his own?

Answer: A

Explanation:

Since 'one' is used in the sentence, it's pronoun form should be one's. So, the correct sentence is "Cannot one do what one likes with one's own?". Option a) is the correct answer.

Question 93

Which of the following four sentence is grammatically correct?

- A Each of the students has done well.
- B Each of the student has done well.

- C Each of the students have done well.
- D Each of the student have done well.

Answer: A

Explanation:

The verb used with the word 'each' should be in the singular form. Also, the group to which 'each' refers should be a plural noun. Option a) satisfies both the criteria and it is the answer.

Question 94

Which of the following four sentence is grammatically correct?

- A None of us were comfortable with what was happening.
- B None of us was comfortable with what was happening.
- C None among us were comfortable with what was happening.
- D None amongst us were comfortable with what was happening.

Answer: B

Explanation:

The phrase 'none of us' takes a singular verb. The grammatically correct sentence should read "None of us was comfortable with what was happening". Option b) is the correct answer.

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Question 95

Which of the following four sentence is grammatically correct?

- A Neither the king nor his ministers desires war.
- B Neither king nor his ministers desires war.
- C Neither the king nor his ministers desire war.
- D Neither king nor his ministers desire war.

Answer: C

Explanation:

When the construct 'neither...nor' is used, the verb should be in agreement with the subject that is placed after 'nor'. In this case, it is 'ministers', which is a plural subject. So, the verb should be singular - 'desire'. Also, the definite article 'the' should be used before 'king'. Option c) is the correct answer.

Question 96

Which amongst the four alternatives given below, is the most concise and clear?

- A The History of Modern Industry's performance, which is marginal at best, may be an indication of solvency problems that will occur in the future.
- B Modern industry's History of marginal performance may indicate solvency problems in the future.
- C The History of marginal performance of Modern Industry may indicate future solvency problems.
- D Modern Industry's History of performance, which is marginal at best, may indicate future solvency problems.

Answer: C

Explanation:

Option A and D are incorrectly framed. Among B and C, C is correct as we want to highlight the history of performance of the industry. C is correctly framed in this context.

Question 97

Which amongst the four alternatives given below, is the most concise and clear?

- A On the whole food front one may say that we can enjoy festivals in the consciousness that though some things are dear, the basic foods are better in quality and still low in price.
- B We can enjoy festivals knowing that though some things are dear, the basic foods are of better quality and still low in price.
- C Although we know that some things are dear, we can still enjoy festivals because the basic foods are better in quality and low in price.
- D On the whole food front, although some things are dear, we can still enjoy festivals as the basic foods are of better quality and quite cheap.

Answer: C

Explanation:

Option A and B are incorrectly framed grammatically as well as contextually. Among Options C and D, C is the best fit. The construction of D is little ambiguous and does not convey the full meaning of the sentence.

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Question 98

Which amongst the four alternatives given below, is the most concise and clear?

- A The dull are likely to have a limited conceptual grasp.
- B It is unlikely that the dull would have adequate conceptual grasp.
- C The dull are not likely to grasp concepts easily.
- D It is unlikely that the dull can grasp concepts easily.

Answer: C

Explanation:

The use of phrases like 'limited conceptual grasp' is unnecessary to convey the meaning of this sentence. We can rule out options a) and b). Both c) and d) convey the same meaning but c) is more concise and clear. Option c) is the correct answer.

Question 99

Which amongst the four alternatives given below, is the most concise and clear?

- A I request you to kindly deliver to me a tin of milk powder.
- B Could you please send me a tin of milk powder?
- C May I request you to please send me a tin of milk powder?
- D Can I have milk powder sent to me please?

Answer: B

Explanation:

A request for milk powder is being made. In option c), the word 'please' is redundant after the use of the word 'request'. The sentence in option d) is incorrect because of the use of the word 'can'. The word 'may' should replace it. Between options a) and b), b) is a better construction. It is concise and clear.

Question 100

Which amongst the four alternatives given below, is the most concise and clear?

- A There is no question of it not being possible to freeze you to death and wake you up as and when you want.
- B There is no question of it not being possible to freeze you to death and wake you up whenever you want.
- C Undoubtedly, it should be possible to freeze you to death and wake you up whenever you want.
- D Undoubtedly, it should be possible to freeze you to death and wake you up when you want.

Answer: C

Explanation:

Options a) and b) are verbose and can be ruled out in comparison with options c) and d). In d), the mistake is the usage of the word 'when'. It should be 'whenever' as used correctly in c). The use of 'whenever' conveys the meaning that the process is repetitive. So, option c) is the correct answer.

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Question 101

Which amongst the four alternatives given below, is the most concise and clear?

- A Finally, there will be unexpected, unanticipated implicational consequences of this development concerning human life.
- B This development concerning human life will finally have unanticipated consequences.
- C This development concerning human life will finally have unexpected and unanticipated implications.
- D This development concerning human life will finally have unexpected implications.

Answer: B

Explanation:

The use of the word unexpected in option c) is redundant. Similarly, the use of the word in the sentence in option a) is also redundant. Between b) and d), option b) is better. The development will lead to unexpected/unanticipated results i.e., consequences and not implications. Option b) is the correct answer.

Question 102

Which amongst the four alternatives given below, is the most concise and clear?

- A His definition of reality has first to be made coincident with the point of view adopted by the author whom he is discussing.
- B His definition of reality has first to be made coincident with the point of view adopted by the author who he is discussing.
- C His definition has to first agree with the point of view adopted by the author he is discussing.
- D His definition of reality has first to coincide with the point of view adopted by the author he is discussing.

Answer: C

Explanation:

The correct option is C. The agreement of someone else's point of view is correct rather than the coincidence or coincide with the point of view.

Question 103

Which amongst the four alternatives given below, is the most concise and clear?

- A I should be very much obliged if you could be kind enough to send me the required material.

- B** I should be much obliged if you could send me the required material.
- C** I should be very much obliged if you could kindly send me the required material.
- D** I should be grateful and very much obliged if you could kindly send me the required material.

Answer: B

Explanation:

The word 'very' is redundant. We can rule out options a), c) and d). The sentence in option b) is the most concise of the lot.

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Question 104

Which amongst the four alternatives given below, is the most concise and clear?

- A** I am sorry, a prior engagement prevents me from joining you at dinner on Monday.
- B** I regret to say that I am very sorry that a previous engagement will prevent me from joining you at dinner on Monday.
- C** I regret to inform you that because of a previous engagement I will be prevented from joining you at dinner on Monday.
- D** I am sorry to say that I am unable to join you at dinner on Monday because of a prior engagement.

Answer: A

Explanation:

The sentences in options b) and c) are verbose and can be ruled out. Similarly, between options a) and d), a) is more concise and to-the-point. It is the best possible choice.

Question 105

Which amongst the four alternatives given below, is the most concise and clear?

- A** Looking back, our inability to confirm speakers gave us the maximum headaches.
- B** Looking at it with hindsight our inability to confirm speakers gave us the maximum headaches.
- C** On hindsight we find that our inability to confirm speakers gave us the maximum headaches.
- D** On hindsight, our inability to confirm speakers gave us the maximum headaches.

Answer: A

Explanation:

The proper usage is 'in hindsight...'. Also, 'looking with hindsight' is incorrect usage. We can rule out options b), c) and d). The sentence in option a) is the most concise and clear construction of the sentence.

Question 106

Choose the pair of words which best expresses the relationship similar to that of CAR :ROAD

- A** electricity :cable
- B** ink :pencil
- C** bomb :missile
- D** fly :bird

Answer: A

Explanation:

As car runs on the road, similarly electricity flows through the cable.
Hence, option A is the correct answer.

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Question 107

Choose the pair of words which best expresses the relationship similar to that of **FORESIGHT : FARSIGHTEDNESS**

- A long : lengthy
- B further : farther
- C short : dwarf
- D thinker : visionary

Answer: D

Explanation:

Foresight and farsightedness are synonyms. Similarly, thinker and visionary are synonyms.
Hence, option D is the correct answer.

Question 108

Choose the pair of words which best expresses the relationship similar to that of **FLEET : NAVY**

- A chapter : book
- B seats : auditorium
- C letter : word
- D drop : ocean

Answer: A

Explanation:

A group of ships used by the Navy of any country is known as fleet. Similarly, a collection of chapters comprises a book.
Hence, option A is the correct answer.

Question 109

Choose the pair of words which best expresses the relationship similar to that of **FEATHER : WING**

- A down : goose
- B cotton : mattress
- C subheading : heading
- D brick : wall

Answer: D

Explanation:

A group of feathers constitute a wing. Similarly, a group of bricks make a wall.
Hence, option D is the correct answer.

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Question 110

Choose the pair of words which best expresses the relationship similar to that of SUGAR : TEA

- A paper : editor
- B weapon : murderer
- C button : buttonhole
- D umbrella : rain

Answer: C

Explanation:

Just as sugar goes into "tea" a button goes into a "button-hole"

Question 111

Choose the pair which does not exhibit the relationship similar to that expressed in RENT : LEASE

- A interest : borrow
- B salary : employ
- C price : buy
- D tax : govern

Answer: D

Explanation:

If we take something on lease, we have to pay rent.

If we borrow money, we have to pay interest.

If we employ someone, we have to pay salary.

If we buy something, we have to pay the price.

However, if we govern someone, we do not pay the tax rather we tax them.

Hence, option D is the correct answer.

Question 112

Choose the pair which does not exhibit the relationship similar to that expressed in TEMPERATURE : HEAT

- A votes : popularity
- B IQ : intelligence
- C ohms : resistance
- D speed : distance

Answer: D

Explanation:

Temperature is the measurement of heat.

Number of votes is the measurement of popularity.

IQ is the measurement of intelligence.

Ohms is the measurement of resistance.

However, speed is not a measure of distance. Speed is the rate at which distance is covered per unit time.

Hence, option D is the correct answer.

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Question 113

Choose the pair which does not exhibit the relationship similar to that expressed in **PROGRESS : PROGRESSIVE**

- A terror : terrorist
- B sympathy : sympathizer
- C revolution : revolutionary
- D reform : reformist

Answer: B

Explanation:

One who progresses is progressive.

One who terrorize is terrorist.

One who bring revolution is revolutionary.

One who bring reforms is reformist.

However, sympathizer is not someone who has sympathy rather sympathizer is someone who agrees with or supports a sentiment, opinion, or ideology.

Hence, option B is the correct answer.

Question 114

Choose the pair which does not exhibit the relationship similar to that expressed in **STUBBORN : ADAPTABLE**

- A stupid : bright
- B moral : amoral
- C inherent : extraneous
- D friend : enemy

Answer: B

Explanation:

The given pair of words are antonyms. All other options except B are pairs of antonyms.

Hence, option B is the correct answer.

Question 115

Choose the pair which does not exhibit the relationship similar to that expressed in **CLIPS : PAPER**

- A thread : beads
- B cement : bricks
- C ribbon : hair
- D bag : vegetables

Answer: D

Explanation:

Clips bind papers.

Threads bind the beads.

Cement holds together the brick.

Ribbon binds hairs.

Bags do not bind vegetables rather vegetables are kept inside bags.

Hence, option D is the correct answer.

Question 116

Choose the set in which the statements are most logically related.

- A. Some of my closest friends disapprove of me.
- B. Some of my closest friends are aardvarks.
- C. All of my closest friends disapprove of me.
- D. All who disapprove of me are aardvarks.
- E. Some who disapprove of me are aardvarks.
- F. Some of my closest friends are no aardvarks.

- A BCD
- B ABD
- C BCE
- D ABE

Answer: C

Explanation:

There are six sentences given. So, there can be many combinations of the sentences possible. Therefore, we will check each of the option to find the correct answer.

In option A, BCD is given. Statement C says all of my closest friends disapprove of me and D says all who disapprove of me are aardvarks. So, all my closest friends must be aardvarks. But, this contradicts with statement B. Thus, option A is incorrect.

In option B, statement D cannot be inferred from A and B.

In option C, all three statements are logically connected.

In option D, E cannot be inferred from A and B.

Hence, option C is the correct answer.

Question 117

Choose the set in which the statements are most logically related.

- A. All those who achieve great ends are happy.
- B. All young people are happy.
- C. All young people achieve great ends.
- D. No young people achieve great ends.
- E. No young people are happy.
- F. Some young people are happy.

- A ADE
- B ABF
- C ACB
- D ADF

Answer: C

Explanation:

In option A, A is inconsistent with E. It is not given in A that only those who achieve great ends are happy.

In option B, F contradicts with B.

In option C, B can be inferred from A and C.

In option D, F cannot be concluded from A and D.

Hence, option C is the correct answer.

Question 118

Choose the set in which the statements are most logically related.

- A. All candid men are persons who acknowledge merit in a rival.
- B. Some learned men are very candid.
- C. Some learned men are not persons who acknowledge merit in a rival.
- D. Some learned men are persons who are very candid.
- E. Some learned men are not candid.
- F. Some persons who recognize merit in a rival are learned.

- A ABE
- B ACF
- C ADE
- D BAF

Answer: D

Explanation:

In option A, E is not a valid conclusion from A and B.

In option B, F cannot be inferred from A and C.

In option C, E cannot be concluded from A and D.

In option D, If some learned men are candid but all candid men recognize merit in a rival, it can be concluded that some men recognize merit in a rival are learned.

Hence, option D is the correct answer.

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Question 119

Choose the set in which the statements are most logically related.

- A. All roses are fragrant.
- B. All roses are majestic.
- C. All roses are plants.
- D. All roses need air.
- E. All plants need air.
- F. All plants need water.

- A CED
- B ACB
- C BDC
- D CFE

Answer: A

Explanation:

In option A, D can be concluded from C and E.

In option B, A, C and B are not connected.

In option C, C cannot be inferred from B and D.

In option D, E and F are not related.

Hence, option A is the correct answer.

Question 120

Choose the set in which the statements are most logically related.

- A. All men are men of scientific ability.
- B. Some women are women of scientific ability.
- C. Some men are men of artistic genius.
- D. Some men and women are of scientific ability.
- E. All men of artistic genius are men of scientific ability.
- F. Some women of artistic genius are women of scientific ability.

- A ACD
- B ACE
- C DEF
- D ABC

Answer: B

Explanation:

Some men are men of artistic genius and all men are men of scientific ability. Therefore, all men of artistic genius are men of scientific ability.

Thus, ACE is the correct combination.

Hence, option B is the correct answer.

Question 121

Choose the set in which the statements are most logically related.

- A. No fishes breathe through lungs.
- B. All fishes have scales.
- C. Some fishes breed up stream.
- D. All whales breathe through lungs.
- E. No whales are fishes.
- F. All whales are mammals.

- A ABC
- B BCD
- C ADE
- D DEF

Answer: C

Explanation:

No fishes breathe through lungs but all whales breathe through lungs. So, no whale can be a fish. Therefore, ADE is a valid combination of logically connected statements.

Hence, option C is the correct answer.

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Question 122

Choose the set in which the statements are most logically related.

- A. Some mammals are carnivores.
- B. All whales are mammals.
- C. All whales are aquatic animals.
- D. All whales are carnivores.
- E. Some aquatic animals are mammals.
- F. Some mammals are whales.

- A ADF
- B ABC
- C AEF
- D BCE

Answer: D

Explanation:

ADF is false as we cannot infer F (Some mammals are whales.) even if A (Some mammals are carnivores.) and D (All whales are carnivores.) are true.

ABC and AEF all statements are different, the set is not related.

All whales are mammals and all whales are aquatic animals. So, some aquatic animals are mammals. Therefore, BCE is valid combination.

Hence, option D is the correct answer.

Question 123

Choose the set in which the statements are most logically related.

- A. First-year students of this college like to enter for the prize.
- B. All students of this college rank as University students.
- C. First-year students of this college are entitled to enter for the prize.
- D. Some who rank as University students are First-year students.
- E. All University students are eligible to enter for the prize.
- F. All those who like to are entitled to enter for the prize.

- A AEF
- B ABC
- C BEC
- D CDF

Answer: C

Explanation:

All students of this college rank as University students and all University students are eligible to enter for the prize. Therefore, all first year students are entitled to enter for the prize.

Hence, option C is the correct answer.

Question 124

Choose the set in which the statements are most logically related.

- A. Some beliefs are uncertain.
- B. Nothing uncertain is worth dying for.
- C. Some belief is worth dying for.
- D. All beliefs are uncertain.
- E. Some beliefs are certain.
- F. No belief is worth dying for.

- A ABF
- B BCD
- C BEF
- D BDF

Answer: D

Explanation:

Nothing uncertain is worth dying for. and all beliefs are uncertain. So, no belief is worth dying for. Hence, option D is the correct answer.

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Question 125

Choose the set in which the statements are most logically related.

- A. No lunatics are fit to serve on a jury.
- B. Everyone who is sane can do logic.
- C. None of your sons can do logic.
- D. Some who can do logic are fit to serve on a jury.
- E. All who can do logic are fit to serve on a jury.
- F. Everyone who is sane is fit to serve on a jury.

A BDE

B BEF

C BDF

D ADE

Answer: B

Explanation:

Everyone who is sane can do logic and all who can do logic are fit to serve on a jury. So, all who can do logic are fit to serve on a jury. Hence, option B is the correct answer.

Instructions

The motive force that has carried the psychoanalytic movement to a voluminous wave of popular attention and created for it considerable following those discontent with traditional methods and attitudes, is the frank direction of the psychological instruments of exploration to the insistent and intimate problems of human relations. However false or however true its conclusions, however weak or strong its arguments, however effective or defective or even pernicious its practice, its mission is broadly humanistic. Psychological enlightenment is presented as a program of salvation. By no other appeal could the service of psychology have become so glorified. The therapeutic promise of psychoanalysis came as the most novel, most ambitious, most releasing of the long procession of curative systems that mark the History of mental healing.

To the contemporary trends in psychology psychoanalysis actually offered a rebuke, a challenge, a supplement, though it appeared to ignore them. With the practical purpose of applied psychology directed to human efficiency it had no direct relation and thus no quarrel. The solution of behaviorism, likewise bidding for popular approval by reducing adjustment to a program of conditioning, it inevitably found alien and irrelevant, as the behaviorist in reciprocity found psychoanalytic doctrine mystical, fantastic, assumptive, remote. Even to the cognate formulations of mental hygiene, as likewise in its contacts with related fields of psychology, psychoanalysis made no conciliatory advances. Towards psychiatry, its nearest of kin, it took an unfriendly position, quite too plainly implying a disdain for an unprogressive relative.

These estrangements affected its relations throughout the domain of mind and its ills; but they came to head in the practice. From the outset in the days of struggle, when it had but a sparse and scattered discipleship, to the present position of prominence, Freudianism went its own way, for the most part neglected by academic psychology. Of dreams, lapses and neuroses, orthodox psychology had little say. The second reason for the impression made by psychoanalysis when once launched against the tide of academic resistance was its recognition of depth psychology, so much closer to human motivation, so much more intimate and direct than the analysis of mental factors. Most persons in trouble would be grateful for relief without critical examination of the theory behind the practice that helped them.

Anyone at all acquainted with the ebb and flow of cures . cures that cure cures that fail . need not be told that the scientific basis of the system is often the least important factor. Many of these systems arise empirically within a practice, which by trial, seems to give results. This is not the case in psychoanalysis. Psychoanalysis belongs to the typical groups of therapies in which practice is entirely a derivative of theory. Here the pertinent psychological principle reads: .Create a belief in the theory, and the fact will create themselves..

Question 126

The distinctive feature of psychoanalysis is that

- A it provided the laymen with a scientific basis to the theories of psychology.
- B it blasted the popular theory that the conscious mind could be aptly linked the tip of an iceberg.
- C it provided effective means for the cure of mental disorders.
- D it rendered existing trends in psychology defunct.

Answer: C

Explanation:

Refer to the following lines of the passage: "The therapeutic promise of psychoanalysis came as the most novel, most ambitious, most releasing of the long procession of curative systems that mark the History of mental healing. "

In this line, the author clearly mentions the use of psychoanalysis for mental healing. Besides that, in whole of the passage the author discuss the mental healing aspects of psychoanalysis and how it is accomplished.

Question 127

The distinction between behaviorism and psychoanalysis that is heightened here is which of the following?

- A Behaviorism is wide in scope; psychoanalysis more restricted.
- B Behaviorism are more tolerant in their outlook; psychoanalysis more dogmatic.
- C Behaviorism traces all action to conditioning by habit; psychoanalysis to the depths of the human mind.
- D Behaviorism are more circumspect and deliberate in their propagation of theory; psychoanalysis jump to conclusion impetuously.

Answer: C

Explanation:

Refer to the following lines: "With the practical purpose of applied psychology directed to human efficiency it had no direct relation and thus no quarrel. The solution of behaviorism, likewise bidding for popular approval by reducing adjustment to a program of conditioning, it inevitably found alien and irrelevant, as the behaviorist in reciprocity found psychoanalytic doctrine mystical, fantastic, assumptive, remote. Even to the cognate formulations of mental hygiene, as likewise in its contacts with related fields of psychology, psychoanalysis made no conciliatory advances."

Here the author states that the behaviorism reduces the adjustment to conditioning gradually by making the patients comfortable and habitual.

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Question 128

The statement which is refuted by the passage is this:

- A The popularity enjoyed by psychoanalysis is partly due to the disenchantment with traditional methods of psychology.
- B Psychoanalysis wooed people dissatisfied with other branches of psychology to swell their ranks.
- C Psychoanalysis were pioneers in the realm of analysis of the subconscious mind.
- D Psychoanalysis alienated allied branches of psychology.

Answer: B

Explanation:

Option B is incorrect as the author clearly mentions that psychoanalysis had no relation to other branches of psychology and hence had no quarrel with them. Refer to the following lines: " With the practical purpose of applied psychology directed to human efficiency it had no direct relation and thus no quarrel. The solution of behaviorism, likewise bidding for popular approval by reducing adjustment to a program of conditioning, it inevitably found alien and irrelevant, as the behaviorist in reciprocity found psychoanalytic doctrine mystical, fantastic, assumptive, remote."

Question 129

Create a belief in theory and

- A belief will be created itself.
- B theory will be created itself.
- C facts will be created themselves.
- D All of the above.

Answer: C

Explanation:

Refer to the last line of the passage: "Create a belief in theory and facts will create themselves."

Question 130

Psychoanalysis are of the opinion that

- A methods of psychoanalysis must be in keeping with individual needs.
- B inferences can be drawn empirically from repeated experiments with any given theory.
- C theory leads to practice.
- D practice culminates into theory.

Answer: C

Explanation:

Refer to the second last line of the passage: "Psychoanalysis belongs to the typical groups of therapies in which practice is entirely a derivative of theory."

Here the author clearly mentions that the theory leads to practice.

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Question 131

Freudian psychoanalysis was ignored by academic psychology because of which of the following?

- A Its theories were not substantiated by practical evidence.
- B It probed too deep into the human mind thereby divesting it of its legitimate privacy.
- C It did not have a large following.
- D It was pre-occupied with unfamiliar concepts such as dreams and the subconscious mind.

Answer: D

Explanation:

Refer to the following lines: "From the outset in the days of struggle, when it had but a sparse and scattered discipleship, to the present position of prominence, Freudianism went its own way, for the most part neglected by academic psychology. Of dreams, lapses and neuroses, orthodox psychology had little say."

In this the author clearly states that Freudianism went on its own way due to its concepts which were hardly followed by others.

Question 132

The only statement to receive support from the passage is which of the following?

- A Psychoanalysis concentrated more on the theoretical remedies than their practical implementation.
- B Psychoanalysis broke the shackles of convention in its involvement with humanistic issues.
- C The attitude of psychoanalysis towards allied branches of psychology could at best be described as indifferent.
- D Psychoanalysis dispelled the prevalent notion that dreams were repressed desires.

Answer: B

Explanation:

Refer to the following lines: "The therapeutic promise of psychoanalysis came as the most novel, most ambitious, most releasing of the long procession of curative systems that mark the History of mental healing. To the contemporary trends in psychology psychoanalysis actually offered a rebuke, a challenge, a supplement, though it appeared to ignore them."

In this line, the author states that psychoanalysis broke the conventions due to its dealing with the crucial human issues.

Question 133

The popularity enjoyed by the psychoanalytical movement may be directly attributed to

- A dissatisfaction with existing methods of psychology.
- B its logical, coherent process of ratiocination.
- C its novel unconventionality in both postulate and practice.
- D its concentration upon the humanistic aspect of psychological analysis.

Answer: D

Explanation:

The answer can be determined from the following lines: "The second reason for the impression made by psychoanalysis when once launched against the tide of academic resistance was its recognition of depth psychology, so much closer to human motivation, so much more intimate and direct than the analysis of mental factors." The author mentions that the popularity was due to its intimacy with the human issues.

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Instructions

It is undeniable that some very useful analogies can be drawn between the relational systems of computer mechanism and the relational systems of brain mechanism. The comparison does not depend upon any close resemblance between the actual mechanical links which occur in brains and computers; it depends on what the machines do. Further more, brains and computers can both be organized so as to solve problems. The mode of communication is very similar in both the cases, so much so that computers can now be designed to generate artificial human speech and even, by accident, to produce sequences of words which human beings recognize as poetry. The implication is not that machines are gradually assuming human forms, but that there is no sharp break of continuity between what is human, what is mechanical.

Question 134

From the passage, it is evident that the author thinks

- A computers are now naturally programmed to produce poetry.
- B computers are likely to usurp the place of intellectual superiority accorded to the human brain.
- C the resemblance that the computer bears to the human brain is purely mechanical.
- D the unintentional mixing up of word sequences in the computer can result in poetry.

Answer: D

Explanation:

In the second last line, the author clearly mentions the accidental mixing up of the words by computer can result in poetry which is

clearly mentioned in D.

Question 135

Computers have acquired a proven ability of performing many of the functions of the human brain because

- A the brain of modern man is unable to discharge its functions properly on account of over-reliance on machines.
- B the sophisticated computer mechanism is on the verge of outstripping human mental faculties.
- C the process of organizing and communicating are similar in both cases.
- D the mechanics of the human brain have been introduced in the computer.

Answer: C

Explanation:

In this passage, the author compares the aspects of organizing and communication between computers and human brains which is similar in both the cases. Refer to the following line for better illustration: "Further more, brains and computers can both be organized so as to solve problems. The mode of communication is very similar in both the cases,"

Question 136

The resemblance between the human brain and the computer is

- A imaginary.
- B intellectual.
- C mechanical.
- D functional.

Answer: D

Explanation:

The author compares the functional aspects of organizing and communication between computers and human brains when he states that machines are becoming more and more like humans.

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Question 137

The passage implies that

- A computers are assuming human forms.
- B human are assuming mechanical forms.
- C computers and humans are substitutable.
- D there is continuity between what is human and what is mechanical.

Answer: D

Explanation:

In the last line of the passage, the author states that there is no break of continuity between what is human and what is mechanical. It means that human and mechanical forms are continuous which is mentioned in D.

Question 138

The author uses the word .recognize. in relation to computer poetry to convey a

- A sense of sorrow at the reluctant admission of the superiority of machines by mankind.
- B feeling that computers have yet to conquer the emotional heights that man is capable of attaining.
- C feeling of derision for the popular faith in the omnipotence of the computer.
- D feeling of a fatalistic acceptance of the computer's encroachment upon human bastions.

Answer: B

Explanation:

Before the word "recognize", "by accident" has been used. The author wants to convey that computers might produce poetry by accident but they cannot produce the poetry by will because poetry requires emotional height that man is capable of attaining.

Question 139

Points of dissimilarity between the human brain and the computer don't extend to

- A the faculty of composing poetry.
- B methods of communication.
- C the faculty of problem solving.
- D the faculty of speaking naturally

Answer: B

Explanation:

The author clearly states that computers compose the poetry by accident while the mode of communication is same in both the cases.

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Instructions

A distinction should be made between work and occupation. Work implies necessity; it is something that must be done as contributing to the means of life in general and to one's own subsistence in particular. Occupation absorbs time and energy so long as we choose to give them; it demands constant initiative, and it is its own reward. For the average person, the element of necessity in work is valuable, for he is saved the mental stress involved in devising outlets for his energy. Work has for him obvious utility, and it brings the satisfaction of tangible rewards. Whereas occupation is an end in itself, and we, therefore, demand that it shall be agreeable, work is usually the means to other ends which present themselves to the mind as sufficiently important to compensate for any disagreeableness in the means. There are forms of work, of course, which since external compulsion is reduced to a minimum, are hardly to be differentiated from occupation. The artist, the imaginative writer, the scientist, the social worker, for instance, find their pleasure in the constant spontaneous exercise of creative energy and the essential reward of their work is in the doing of it. In all work performed by a suitable agent, there must be a pleasurable element, and the greater the amount of pleasure that can be associated with work, the better. But for most people, the pleasure of occupation needs the addition of the necessity provided in work. It is better for them to follow a path of employment marked out for them than to have to find their own.

When, therefore, we look ahead to the situation likely to be produced by the continued rapid extension of machine production, we should think not so much about providing occupation for leisure as about limiting the amount of leisure to that which can be profitably used. We shall have to put the emphasis on the work providing rather than the goods providing aspect of the economic process. In the earlier and more ruthless days of capitalism, the duty of the economic system to provide work was overlooked. The purpose of competitive enterprise was to realize a profit. When profit ceased or was curtailed, production also ceased or was curtailed. Thus the workers, who were regarded as units of labour forming part of the costs of production, were taken on when required and dismissed when not required. They hardly thought of demanding work as a right. And so long as British manufacturers had their eyes mainly on the markets awaiting them abroad, they could conveniently neglect the fact that since workers are also consumers, unemployment at home means loss of trade. Moral considerations did not yet find a substitute in ordinary business prudence. The labour movements arose largely as a revolt against the conception of workers as commodities to be bought and sold without regard to their needs as human beings. In a socialist system it is assumed that they will be treated with genuine consideration, for, the making of profit not being essential, central planning will not only adjust the factors of production to the best advantage but will secure regularity of employment. But has the socialist thought about what he would do if owing to technological advancements, the amount of human labour were catastrophically reduced? So far as I know, he has no plan beyond drastically limiting the hours of work, and sharing out as much work as there may be. And, of course, he would grant monetary relief to those who were actually unemployed. But has he considered what would be the moral effect of

life imagined as possible in the highly mechanized state of the future? Has he thought of the possibility of bands of unemployed and under-employed workers marching on the capital to demand not income (which they will have) but work?

Question 140

Future, according to the passage, may find the workers

- A without money.
- B without work.
- C replacing machines.
- D without leisure.

Answer: B

Explanation:

Refer to the following lines: "But has he considered what would be the moral effect of life imagined as possible in the highly mechanized state of future? Has he thought of the possibility of bands of unemployed and under-employed workers marching on the capital to demand not income (which they will have but work?"

In this line, the author clearly states that the highly mechanized future may render many workers unemployed.

Question 141

The main defect of socialism at present is that

- A it has not evolved a satisfactory system of making workers co-sharers in prosperity.
- B it has not made work less burdensome for the mass of workers.
- C it has not taken into consideration the possibility of an immense reduction of human labour in the wake of mechanization.
- D it is not concerned with improving and streamlining the method of production.

Answer: C

Explanation:

Refer to the following lines: "But has the socialist thought about what he would do if owing to technological advance, the amount of human labour were catastrophically reduced? So far as I know, he has no plan beyond drastically lining the hours of work, and sharing out as much work as there may be."

The author clearly mentions that the socialists have not taken into account the mechanization.

Question 142

The labour movement was the outcome of

- A an effort to increase productivity.
- B a move to make workers share in the prosperity of the capitalists.
- C a revolt against the conception of workers as commodities.
- D a move to avert mass unemployment because of the mechanization.

Answer: C

Explanation:

Refer to the following lines: "The labour movements arose largely as a revolt against the conception of workers as commodities to be bought and sold without regard to their needs as human beings."

Option C is clearly mentioned in these lines.

Question 143

The chief purpose of competitive enterprise is to

- A create more job opportunities.
- B produce as much as possible.
- C create more wealth in the country.
- D realize the maximum profit.

Answer: D

Explanation:

Refer to the following lines: "In the earlier and more ruthless days of capitalism the duty of the economic system to provide work was overlooked. The purpose of competitive enterprise was to realize a profit. When profit ceased or was curtailed, production also ceased or was curtailed."

Option D is clearly mentioned in these lines.

Question 144

In the situation created by the rapid extension of machine production, our object should be to

- A make work as light as possible.
- B provide increased opportunities for interesting occupation.
- C limit the amount of leisure to that which can be profitably used.
- D produce more and more goods.

Answer: C

Explanation:

Refer to the following lines: "When, therefore, we look ahead to the situation likely to be produced by the continued rapid extension of machine production, we should think not so much about providing occupation for leisure as about limiting the amount of leisure to that which can be profitably used."

Option C is clearly stated in these lines.

Question 145

The activities of the artist, the writer, the scientist etc. may be considered to be occupations because

- A they often does not have any utilitarian value.
- B external compulsion is reduced to a minimum and they are agreeable and require quite a lot of initiative.
- C they occupies time and energy only so long as the workers choose to give them.
- D they care only for the pleasure which brings them without any consideration of reward.

Answer: B

Explanation:

Refer to the following lines: "There are forms of work, of course, which since external compulsion is reduced to a minimum, are hardly to be differentiated from occupation. The artist, the imaginative writer, the scientist, the social worker, for instance, find their pleasure in the constant spontaneous exercise of creative energy and the essential reward of their work is in the doing of it." Option B is stated in these lines.

Question 146

Which of the following statements is not true according to the information contained in the passage?

- A Work is something done as contributing to the means of life in general and to one's own subsistence in particular.
- B Occupation is something that requires initiative and can be done at one's will and pleasure and not as a task.
- C Work brings in tangible rewards while occupation is not utilitarian.
- D There is no form of work which shows approximation to occupation.

Answer: D

Explanation:

Refer to the following lines: "There are forms of work, of course, which since external compulsion is reduced to a minimum, are hardly to be differentiated from occupation."

Here the author clearly states that some works can be hardly differentiated from occupation which is contrary to what is mentioned in D.

Question 147

The chief reason for a person taking up an occupation may be stated to be :-

- A a desire to make profit.
- B an irresistible urge to do something uncommon.
- C a wish to do something useful to society.
- D a desire to do something which requires initiative and doing it at his will and pleasure.

Answer: D

Explanation:

Refer to the following lines of the passage: "Occupation absorbs time and energy so long as we choose to give them; it demands constant initiative, and it is its own reward." " But for most people the pleasure of occupation needs the addition of the necessity provided in work. "

Option D correctly summarizes the answer as the occupation is a desire to do something which requires initiative and will.

Question 148

The distinction between work and occupation is as follows :-

- A Work at all times is unpleasant and occupation is always agreeable.
- B In work there is an element of necessity which is totally wanting in occupation.
- C Work has obvious utility and brings tangible rewards, while occupation is an end in itself.
- D Work and occupation often seem to be so very much alike that no distinction can be made between them.

Answer: C

Explanation:

Refer to the following lines: "Work has for him obvious utility, and it bring the satisfaction of tangible rewards. Where as occupation is an end in itself, and we therefore demand that it shall be agreeable, work is usually the means to other ends." Option C clearly mentions the aspects present in these lines.

About CAT exam

Instructions

If the more articulate members of a community formed a coherent and united class with a common interest, democracy would probably

replace in to the rule of that intelligent, educated minority; even as it is, the democracies of the modern world are much closer to this fate than they are to the much-canvassed dangers of mob rule. Far from oppressing the cultured minority, or any other minorities, democracy gives more of them more scope to have their way than any other system does. This is the lesson of experience. It might also have been derived from an analysis of the concept of democracy, if the concept had been accurately analyzed.

Question 149

The word articulate here refers to

- A the elite.
- B people who are endowed with a native intelligence.
- C that class which is well educated.
- D people who are endowed with clarity of speech.

Answer: C

Explanation:

Although articulate refers to the person having clarity of thought but in this case it is contextually incorrect. Here the author wants to mention those persons who are well educated and can form a coherent class. Option C mentions the meaning in the correct context.

Question 150

What emerges as the truth from a reading of the paragraph is that

- A forms of government other than democracy give the mobs great scope for self expression.
- B democracy provides greater scope for mob rule.
- C democracy provides greater scope for the rule of the minority.
- D forms of government other than democracy give the educated minority greater scope for self expression.

Answer: C

Explanation:

Refer to the following lines: "Far from oppressing the cultured minority, or any other minorities, democracy gives more of them more scope to have their way than any other system does." The author clearly mentions that the minorities are given more voice in a democracy which is mentioned in C.

Question 151

Our appreciation of the virtues of the democratic system

- A is the result of an illusory concept.
- B is the result of our negative response to other forms of government.
- C is the result of a proven record of the success of democracy.
- D is the result of centuries of accurate research on the theoretical aspects of democracy.

Answer: C

Explanation:

Refer to the following lines: "This is the lesson of experience. It might also have been derived from an analysis of the concept of democracy, if the concept had been accurately analyzed." Here the author mentions the proven record of democracy when he mentions his experience. Option C correctly states the fact.

Free CAT Doubt Solving Group

Question 152

The wide scope that democracy offers to the minorities can be made known

- A by our common sense.
- B by our political theories.
- C by our native intelligence.
- D by proper analysis.

Answer: D

Explanation:

Refer to the following lines: "It might also have been derived from an analysis of the concept of democracy, if the concept had been accurately analyzed." Here the author states that if the concepts of democracy are analysed properly then its wide scope can be deciphered.

Question 153

The author seems to be

- A a supporter of mob rule.
- B a supporter of democracy
- C against intelligence in minorities.
- D analysing the flaws of democracy.

Answer: B

Explanation:

In the whole passage, the author seems to favor democracy over the rule of the minority. He offers various context in this support and concludes that democracy is better in terms of taking care of minority.

Question 154

The institution of democracy, in modern times

- A is on the brink of extinction.
- B has become vulnerable to the dangers of proletariat rule.
- C should be prepared for the inevitability of mob rule.
- D has become prone to the rule of particular class of people.

Answer: D

Explanation:

Refer to the following lines: "If the more articulate members of a community formed a coherent and united class with a common interest, democracy would probably replace in to the rule of that intelligent, educated minority;" Here the author mentions the present context where the rule is of educated minority which can be removed by a coherent and united class. Option D mentions this aspect of the answer.

Know the CAT Percentile Required for IIM Calls

Instructions

A difficult readjustment in the scientist's conception of duty is imperatively necessary. As Lord Adrain said in his address to the British Association, unless we are ready to give up some of our old loyalties, we may be forced into a fight which might end the human race. This matter of loyalty is the crux. Hitherto, in the East and in the West alike, most scientists, like most other people, have felt that loyalty

to their own state is paramount. They have no longer a right to feel this. Loyalty to the human race must take its place. Everyone in the West will at once admit this as regards Soviet scientists. We are shocked that Kapitza who was Rutherford's favourite pupil, was willing when the Soviet government refused him permission to return to Cambridge, to place his scientific skill at the disposal of those who wished to spread communism by means of H-bombs. We do not so readily apprehend a similar failure of duty on our own side. I do not wish to be thought to suggest treachery, since that is only a transference of loyalty to another national state. I am suggesting a very different thing; that scientists the world over should join in enlightening mankind as to the perils of a great war and in devising methods for its prevention. I urge with all the emphasis at my disposal that this is the duty of scientists in East and West alike. It is a difficult duty, and one likely to entail penalties for those who perform it. But, after all, it is the labours of scientists which have caused the danger and on this account, if on no other, scientists must do everything in their power to save mankind from the madness which they have made possible. Science from the dawn of History, and probably longer, has been intimately associated with war. I imagine that when our ancestors descended from the trees they were victorious over the arboreal conservatives because flints were sharper than coconuts. To come to more recent times, Archimedes was respected for his scientific defense of Syracuse against the Romans; Leonardo obtained employment under the Duke of Milan because of his skill in fortification, though he did mention in a postscript that he could also paint a bit. Galileo similarly derived an income from the Grand Duke of Tuscany because of his skill in calculating the trajectories of projectiles. In the French Revolution, those scientists who were not guillotined devoted themselves to making new explosives. There is therefore no departure from tradition in the present day scientists manufacture of A-bombs and H-bomb. All that is new is the extent of their destructive skill.

I do not think that men of science can cease to regard the disinterested pursuit of knowledge as their primary duty. It is true that new knowledge and new skills are sometimes harmful in their effects, but scientists cannot profitably take account of this fact since the effects are impossible to foresee. We cannot blame Columbus because the discovery of the Western Hemisphere spread throughout the Eastern Hemisphere an appallingly devastating plague. Nor can we blame James Watt for the Dust Bowl although if there had been no steam engines and no railways the West would not have been so carelessly or so quickly cultivated. To see that knowledge is wisely used is primarily the duty of statesmen, not of science; but it is part of the duty of men of science to see that important knowledge is widely disseminated and is not falsified in the interests of this or that propaganda.

Scientific knowledge has its dangers; but so has every great thing. And over and beyond the dangers with which it threatens the present, it opens up, as nothing else can, the vision of a possible happy world, a world without poverty, without war, with little illness. And what is perhaps more than all, when science has mastered the forces which mould human character, it will be able to produce populations in which few suffer from destructive fierceness and in which the great majority regard other people, not as competitors, to be feared, but as helpers in a common task. Science has only recently begun to apply itself to human beings except in their purely physical aspect. Such science as exists in psychology and anthropology has hardly begun to affect political behaviour or private ethics. The minds of men remain attuned to a world that is fast disappearing. The changes in our physical environment require, if they are to bring well being, correlative changes in our beliefs and habits. If we cannot effect these changes, we shall suffer the fate of the dinosaurs, who could not live on dry land.

I think it is the duty of science. I do not say of every individual man of science, to study the means by which we can adapt ourselves to the new world. There are certain things that the world quite obviously needs; tentativeness, as opposed to dogmatism in our beliefs: an expectation of co-operation, rather than competition, in social relations, a lessening of envy and collective hatred. These are things which education could produce without much difficulty. They are not things adequately sought in the education of the present day.

It is progress in the human sciences that we must look to undo the evils which have resulted from a knowledge of the physical world hastily and superficially acquired by populations unconscious of the changes in themselves that the new knowledge has made imperative. The road to a happier world than any known in the past lies open before us if atavistic destructive passion can be kept in leash while the necessary adaptations are made. Fears are inevitable in our time, but hopes are equally rational and far more likely to bear good fruit. We must learn to think rather less of the dangers to be avoided than of the good that will be within our grasp if we believe in it and let it dominate our thoughts. Science, whatever unpleasant consequences it may have by the way, is in its very nature a liberator, a liberator of bondage to physical nature and, in time to come a liberator from the weight of destructive passion. We are on the threshold of utter disaster or unprecedented glorious achievement. No previous age has been fraught with problems so momentous and it is to science that we must look for happy issue.

Question 155

The duty of science, according to the author is :-

- A to realize the vision of a happy new world
- B to pursue knowledge for its own sake
- C to see that only such discoveries as conducive to the progress of humanity should be made
- D to study the means by which we can adapt ourselves to the new world

Answer: D

Explanation:

Refer to the following lines: "I think it is the duty of science . I do not say of every individual man of science, to study the means by which we can adapt ourselves to the new world." Here the author states that a man of science has to study the means by which we can adapt ourselves to the new world.

Question 156

Archimedes, Leonardo and Galileo have been mentioned to substantiate the statement that

- A science has always been intimately associated with war
- B from ancient times science has played a leading part in the life of man
- C all learning has flourished only under the patronage of royalty and eminent personages
- D in the past pursuit of knowledge was done for its own sake

Answer: A

Explanation:

Refer to the following lines: "To come to more recent times, Archimedes was respected for his scientific defense of Syracuse against the Romans; Leonardo obtained employment under the Duke of Milan because of his skill in fortification, though he did mention in a postscript that he could also paint a bit. Galileo similarly derived an income from the Grand Duke of Tuscany because of his skill in calculating the trajectories of projectiles. In the French Revolution those scientists who were not guillotined devoted themselves to making new explosives. "

In this paragraph, the author mentions the relation between the aspects of science and war by taking the examples of Syracuse vs Romans, fortification and trajectories of projectiles. The author wants to state the intimacy between science and war.

Question 157

The ground on which the author suggests that all scientists should join in educating mankind regarding the perils of a great war is that

- A scientists being among the most learned among people, should take the lead in this process of education.
- B it is the work of scientists which has led to this perilous situation and so they should do something to undo the mischief.
- C science has always been associated with war and in the fitness of things, scientists should take the lead in trying to end it.
- D all others like politicians and soldiers have vested interest in perpetuating war and by elimination, scientists alone may be trusted to work for its abolition.

Answer: B

Explanation:

Refer to the following lines: "We do not so readily apprehend a similar failure of duty on our own side. I do not wish to be thought to suggest treachery, since that is only a transference of loyalty to another national state. I am suggesting a very different thing; that scientists the world over should join in enlightening mankind as to the perils of a great war and in devising methods for its prevention. I urge with all the emphasis at my disposal that this is the duty of scientists in East and West alike."

In this passage the author requests the scientists to enlighten the people in perils of great war as the science is intimately associated with war. This is substantiated by providing the examples of Galileo, Leonardo and Archimedes. Option B is the correct answer

How to prepare for Verbal Ability for CAT

Question 158

In modern times, the crux of the matter as far as scientists are concerned is that

- A their loyalty to the state should be declared in no uncertain terms.
- B a readjustment in the scientist.s conception of duty is imperatively necessary.
- C they should not object to stringent control by the state over their activities.

D they should assert their independence and refuse to subject themselves to any kind of control.

Answer: B

Explanation:

This fact is mentioned in the first sentence of the passage: "A difficult readjustment in the scientist's conception of duty is imperatively necessary."

Question 159

The instance of Kapitza cited by the author goes to prove that

A every scientist has his price.

B in Soviet Russia, communists do not tolerate independent scientists.

C scientists, whether in the East or West, have hitherto felt that loyalty to their own state is paramount.

D scientists in the West have a higher sense of responsibility than their counterparts in the East.

Answer: C

Explanation:

Refer to the following lines: "Loyalty to the human race must take its place. Everyone in the West will at once admit this as regards Soviet scientists. We are shocked that Kapitza who was Rutherford's favourite pupil, was willing when the Soviet government refused him permission to return to Cambridge, to place his scientific skill at the disposal of those who wished to spread communism by means of H-bombs." From this we can see that Kapitza agreed to help Soviet Union when they did not permit him to return to Cambridge. The Soviet Union could do so because he was a citizen of the Soviet Union.

From this we can infer that firstly, the author is shocked that Kapitza agreed to help his own state of Soviet Union even when their actions were against humanity and secondly, the author feels that the example of Kapitza shows that we should be loyal to humanity and not individual countries. Hence, the example of Kapitza is used to show that current system of loyalty to home country is a wrong one. Hence, option C is the right answer.

Question 160

Which among the following statements is not true according to the information provided in the passage?

A If there is no readjustment in the scientists conception of duty, the extinction of the human race by war is a distinct possibility.

B Up till now, scientists all over the world have felt that loyalty to their own state is paramount

C It is the labours of scientists which have caused the danger of annihilation of mankind.

D The tradition up to now has been that scientists have been respected for their pursuit of knowledge and not for their part in devising potent weapons of destruction

Answer: D

Explanation:

Refer to the following sentences: "A difficult readjustment in the scientist's conception of duty is imperatively necessary", "Hitherto, in the East and in the West alike, most scientists, like most other people, have felt that loyalty...paramount", "But after all, it is the labours of the scientists which have caused the danger...possible". From these three sentences, we can see that the statements in options a), b) and c) are true. Option d) is not true according to the passage.

How to prepare for Data Interpretation for CAT

Question 161

The duty of the scientist, according to the passage, is

A to further the interests of his state with as much devotion as possible

- B to pursue knowledge regardless of the consequences of their discoveries and inventions
- C to see that important knowledge is widely disseminated and is not falsified in the interests of propaganda
- D to refuse to serve national interests

Answer: C

Explanation:

Refer to the following lines in the passage: "but it is part of the duty of men of science to see that important knowledge is widely disseminated and is not falsified in the interests of this or that propaganda. Scientific knowledge has its dangers; but so has every great thing." Here it is clearly mentioned that the duty of scientist is to see that important knowledge is widely disseminated and is not falsified in the interests of propaganda

Question 162

The evils which have resulted from knowledge of the physical world can only be overcome by

- A a more intensive pursuit of scientific knowledge
- B making scientists more responsible to society
- C adequate progress in the human sciences
- D enlightening the general public about the evils

Answer: C

Explanation:

Refer to the following lines: "It is progress in the human sciences that we must look to undo the evils which have resulted from a knowledge of the physical world hastily and superficially acquired by populations unconscious of the changes in themselves that the new knowledge has made imperative." Option C correctly highlights this fact.

Question 163

Science may be considered a liberator in the sense that :-

- A ultimately it may bring the nations of the world together
- B it may make man's life a great deal happier than what it is now
- C it may free man from bondage to physical nature and the weight of destructive passions
- D it may end the tyranny of age old beliefs and superstitions.

Answer: C

Explanation:

Refer to the following lines: "We must learn to think rather less of the dangers to be avoided than of the good that will be within our grasp if we believe in it and let it dominate our thoughts. Science, whatever unpleasant consequences it may have by the way, is in its very nature a liberator, a liberator of bondage to physical nature and, in time to come a liberator from the weight of destructive passion."

Option C can be deduced from the given lines.

How to prepare for Logical Reasoning for CAT

Instructions

We have planned development with a view to raising standard of living of our teeming millions. Hence our economic development is inspired by social justice.

Question 164

Which of the following will weaken the argument?

- A Without economic development standard of living cannot be raised.
- B Social justice implies economic prosperity.
- C Development cannot be planned.
- D None of these.

Answer: C

Explanation:

According to the premise, the raising of the standards of living of our teeming millions (social justice) is done by planning the economic development. But, if the development cannot be planned, then the argument will be weakened. Option c) is the correct answer.

Question 165

The argument is based on which of the following assumptions?

- I. Social justice is our aim and economic development is the means.
- II. There is overpopulation in India.
- III. Economic development will lead to social justice.

- A Only I
- B Both I and II
- C Both I and III
- D Both II and III

Answer: C

Explanation:

Refer to the last sentence: "Hence our economic development is inspired by social justice." Here the author mentions that when economic development will take place then social justice will happen. Sentence 3 is substantiated.

In this passage, the author wants to promote economic development to achieve social justice. Hence social justice is an end and economic development is the means.

Question 166

Which of the following will strengthen the argument?

- A Social justice can be done by raising the standard of living
- B Economic planning is necessary for every state.
- C For economic development production should be increased.
- D None of these.

Answer: A

Explanation:

In this para, the end goal of the author is social justice and economic development is the means to it. "Raising the standard of living" means "developing the economy." Hence Option A strengthens the argument.

How to prepare for Quantitative aptitude for CAT

Instructions

We will have to take more interest in hydro-electric projects. As the prices of oil have increased, it has become vital that such renewable sources of energy are tapped.

Question 167

The assumption/assumptions of the argument is /are which of the following?

- I. Hydro electric power is a renewable source of energy.
- II. Hydro electric power is comparatively cheaper.

- A Only I
- B only II
- C Both I and II
- D Neither I nor II

Answer: B

Explanation:

Statement 1 is a fact stated in the premise. The author says that "it has become vital that such renewable sources of energy are tapped." while referring to hydroelectric power. As the information is given in the premise, it is not an assumption but an explicitly stated fact.

Also the author states that the price of the oil has been increasing and that's why we have to tap hydroelectric power. The author has assumed that the hydroelectric power is cheap and renewable. Hence, statement 2 is an assumption made by the author.

Question 168

Which of the following will weaken the argument?

- A Generation of hydroelectric power is more costly than oil.
- B OPEC increased oil prices.
- C Without energy we cannot manage.
- D None of these.

Answer: A

Explanation:

The argument is built on the assumption that generation of hydroelectric power is cheaper than oil. So, if it is true that generation of hydroelectric power is more expensive than generation of power using oil, the argument will be weakened. Option a) is the correct answer.

Instructions

There can be no civilization without music, dance or art, for one is not fully, vibrantly alive without them.

Question 169

The assumption/assumptions of the argument is /are which of the following?

- A. Civilization and art are closely linked up.
- B. If people are not full of life there can be no civilization.

- A Only I
- B Only II
- C Both I and II
- D Neither I nor II.

Answer: B

Explanation:

In these lines the author states that if one is not fully vibrant then there can be no civilization. Hence B is an assumption. A cannot be concluded as we cannot say that the civilization and art are closely related to each other. According to the argument it is just one of the condition for the civilization to exist. It does not suggest that they are closely linked up.

How to prepare for Logical Reasoning for CAT

Question 170

Which of the following would weaken the argument?

- A Music is the life of man.
- B Living persons like music.
- C Art has no relation with civilization.
- D None of these.

Answer: C

Explanation:

According to the argument, one is vibrantly alive because of music, dance etc. and a civilization is possible only because of the vibrantly alive. So, if it is true that art has no relation with civilization, the argument will be weakened. Option c) is the correct answer.

Question 171

Which of the following would strengthen the argument?

- A Music, dance and art are human activities.
- B Only the vibrantly alive can contribute to civilization.
- C Music injects new life in man.
- D None of these.

Answer: B

Explanation:

According to the argument, one is vibrantly alive because of music, dance etc. and a civilization is possible only because of the vibrantly alive. So, the statement that "Only the vibrantly alive can contribute to civilization" would strengthen the argument. Option b) is the correct answer.

Instructions

It is sometimes mooted that there can be democracy in a two party system. That would be correct if politics were a game like cricket or football; but politics is not sports.

Question 172

Which of the following would strengthen the argument?

- A Two party system functions well
- B Politics is a dirty game.
- C Two political parties limit the choice of the voters.
- D None of these.

Answer: C

Explanation:

In this paragraph, the author compares the politics with the game like cricket or football and wants to conclude there can be no democracy in a 2 party system. Option C strengthens the fact as if it was true that the two party system in a democracy would not be good as it limits the choice of voters.

Question 173

Which of the following would weaken the argument?

- A The game of politics is played like any other game, for example, football.
- B Politics is not a sport.
- C Political parties struggle for power.
- D None of these.

Answer: A

Explanation:

The contention of the argument is that there cannot be democracy in a two party system because politics is game unlike the other traditional games. So, if it is true that even politics is played like other games, then the argument is weakened. Option a) is the correct answer.

Question 174

The assumption/assumptions of the argument is/are which of the following?

- I. Politics is not a game.
- II. Two party system is ideal for democracy.
- III. Cricket is played by two teams.

- A Only I
- B Only II
- C Only III
- D I, II, III

Answer: C

Explanation:

That politics is not a game is mentioned in the premise. The premise says that there can be democracy in a two party system if it is like a game like Cricket. Its underlying assumption is that Cricket is a game played by two teams. So, only III is a valid assumption. Option c) is the correct answer.

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