Directions of Test

Test Name	Placement Goldman Sachs 02 (R1)	Total Questions	66	Total Time	90 Mins

Section Name	No. of Questions	Marks per Question	Negative Marking
Numerical Computations	8	5	1/3
Numerical Reasoning	12	5	1/3
Logical Reasoning	12	5	1/3
Abstract Reasoning	12	5	1/3
Diagrammatic Reasoning	12	5	1/3
Verbal Usage & Reading Comprehension	10	5	1/3

Section : Numerical Computations

DIRECTIONS for the question: *Solve the following question and mark the best possible option.*

Question No. : 1

If a < b < c < d < e are consecutive positive integers such that b + c + d is a perfect square and a + b + c + d + e is a perfect cube, what is the smallest possible value of c?

A) 725 B) 125 ✓C) 675 D) 824

Explanation:-
Since the middle term of an arithmetic progression with an odd number of terms is the average of the series, we know b + c + d = 3c and a + b + c + d + e = 5c. Thus c must be in the form of $3 \times x^2$ based upon the first part and in the form of $5^2 \times y^3$ based upon the second part, with x and y denoting integers. c is minimized if it's prime factorization contains only 3 and 5 and since there is a cubic term in $5^2 \times y^3$, 3^3 must be a factor of c. So the minimum value of c is $3^3 5^2 = 675$.

DIRECTIONS for the question: *Solve the following question and mark the best possible option.*

Question No. : 2

How many times will you write the digit 2, if you write all the numbers from 201 to 300?

A) 99 ✓B) 119 C) 131 D) 20

Explanation:- *Number of times 2 is to be written from 201 to 300*
2 at Hundred's place: From 201 to 299, 99 times.
Now 2 at tens place, from 220 to 229 i.e 10 times.
Lastly 2 at units place like 202, 212 upto 292. This is also 10 times.
Hence total number of times 2 is to be written would be 99 + 10 + 10 = 119.
Hence option B

DIRECTIONS for the question: *Solve the following question and mark the best possible option.*

Question No. : 3

Reema arranged 1, 2, 3, 4, 5, 6 in a line to make a six digit number abcdef.
Tina came & observed that the number ab is divisible by 2.
The number abc is divisible by 3.
The number abcd is divisible by 4.
The number abcde is divisible by 5.

How many values of abcdef are possible?

A) 9 B) 12 ✓C) 6 D) 5

Explanation:- *We will apply divisibility rules. Since ab is divisible by 2 so b = even.*
Since abcde is divisible by 5, so, e = 5.
Since abcd is divisible by 4, so, cd = 12, 16, 24, 32, 36, 52, 56, 64.
So, following numbers are possible for abcd:: 1236, 1264, 1624, 2436, 3216 and 4236.
So, six digit numbers are 123654, 126453, 162453, 243651, 321654 and 423651.
Six values are possible.

DIRECTIONS for the question: *Solve the following question and mark the best possible option.*

Question No. : 4

At a dinner party every two guests used a bowl of rice between them, every three guests used a bowl of dal between them and every four used a bowl of meat between them. There were altogether 65 dishes. How many guests were present at the party?

✓A) 60 B) 65 C) 90 D) 80

Explanation:- *Clearly the number of guests have to be LCM of 2, 3, 4 i.e. 12 or any multiple of 12.*
The only option that can be tried is 60.

So no. of rice bowl dishes $= \frac{60}{2} = 30$

No. of dal bowl dishes $= \frac{60}{3} = 20$

No. of meat bowl dishes $= \frac{60}{4} = 15$

Total no. of dishes = 30 + 20 + 15 = 65
So this is the correct option.

DIRECTIONS for the question: *Solve the following question and mark the best possible option.*

Question No. : 5

If a, b are rationals and $a\sqrt{2} + b\sqrt{3} = \sqrt{98} + \sqrt{108} - \sqrt{48} - \sqrt{72}$, then the values of a, b are respectively

✓A) 1, 2 B) 1, 3 C) 2, 1 D) 2, 3

Explanation:-

$a\sqrt{2} + b\sqrt{3} = \sqrt{98} + \sqrt{108} - \sqrt{48} - \sqrt{72}$
$a\sqrt{2} + b\sqrt{3} = 7\sqrt{2} + 6\sqrt{3} - 4\sqrt{3} - 6\sqrt{2}$
$a\sqrt{2} + b\sqrt{3} = 1\sqrt{2} + 2\sqrt{3}$
Comparing the coefficients, we get
a = 1, b = 2
So, Ans. is option A

DIRECTIONS for the question: *Solve the following question and mark the best possible option.*

Question No. : 6

When a positive integer a is divided by b, then the remainder is 14. If $\frac{a}{b} = 23.35$, what is the value of b?

A) 23 B) 35 C) 20 ✓D) None of these

Explanation:-
Dividing a by b gives a remainder of 14.
Also, $\frac{a}{b} = 23.35$
Remainder = 0.35b ($\because$ a = 23b + 0.35b)
Therefore, 0.35b =14 $\Rightarrow$ b = 40

DIRECTIONS for the question: *Solve the following question and mark the best possible option.*

Question No. : 7

The value of $(25.732)^2 - (15.732)^2$ is

A) 4.1464 B) 41.464 ✓C) 414.64 D) 4146.4

Explanation:- *As we know $a^2 \_ b^2$ = (a + b) (a – b)*

$(25.732)^2 - (15.732)^2 = (25.732 + 15.732)(25.732 - 15.732) =$
$(41.464)(10) = 414.64$: Option C

DIRECTIONS for the question: *Solve the following question and mark the best possible option.*

Question No. : 8

Which among the following is the least number which when divided by 10 leaves a remainder of 9, when divided by 9 leaves a remainder of 8, when divided by 8 leaves a remainder of 7, when divided by 7 leaves a remainder of 6, when divided by 6 leaves a remainder of 5, when divided by 5 leaves a remainder of 4. When divided by 4 leaves a remainder of 3, when divided by 3 leaves a remainder of 2, and when divided by 2 leaves a remainder of 1?

✓A) 7559 B) 839 C) 5029 D) None of these

Explanation:- *In each of the case difference between divisor and remainder is 1. So number should be of the form LCM(2,3,4,5,6,7,8,9,10)K-1.*
We can see first option is the only option of the form 2520k - 1
*7559 = 2520 *3 - 1*

Section : Numerical Reasoning

DIRECTIONS for the question: *Solve the following question and mark the best possible option.*

Question No. : 9

A carpenter wants to sell 40 chairs. If he sells them at Rs.156 per chair, he would be able to sell all the chairs. But for every 6 increase in price, he will be left with one additional unsold chair. At what selling price would he be able to maximize his profits (assuming unsold chairs remain with him)?

✓A) 198 B) 192 C) 204 D) Cannot be determined

Explanation:- *Let the carpenter increases the price x times, then the total increase in price would be Rs. 6x. Also, the chair sold at increased price = (40 – x) To maximize the profit the selling price of chair with increase price must be greater than original selling price,*
$\therefore (156 + 6x)(40 - x) > 156 \times 40$
$156 \times 40 + 240x - 156x - 6x^2 > 156 \times 40$
$84x - 6x^2 > 0$
Differentiate the above equation and putting = 0
$84 - 12x = 0$
$\Rightarrow 84 = 12x$
$\therefore x = \frac{84}{12} = 7$
To check, if value of x will maximize or not we will against differentiate the above equation and put the value of x and if the result is negative, then the profit is maximized and if positive, then profit is minimum
So, on differentiating $84 - 12x = -12$
So, the result is negative, hence the profit is maximum.
The maximum selling price = $156 + 6 \times 7$
= 156 + 42 = Rs.198

DIRECTIONS for the question: *Solve the following question and mark the best possible option.*

Question No. : 10

A shopkeeper allows a discount of 10% on the marked price of an item but charges a sales tax of 8% on the discounted price. If the customer pays ₹ 680.40 as the price including the sales tax, then what is the marked price of the item?

A) 630 ✓B) 700 C) 780 D) None of these

Explanation:- *Let the marked price on item = Rs.100*
Discount allowed = 10% = Rs.10
$\therefore$Discounted price of item = 100 - 10 = ∓ 90
$\therefore$Total paid amount = 90 + 7.20 = Rs.97.20
When Rs.680.40 is paid, then the marked price
$= \text{Rs.}\frac{100}{97.20} \times 680.40 = \text{Rs.}\frac{100 \times 6804}{972} = \text{Rs.}700$

DIRECTION for the question: *Solve the following question and mark the best possible option.*

Question No. : 11

In 1991, The SONGRESS government promised that they would bring down prices in 100 days. They failed to do so and the prices went up by 10% each year for the next five years. Then JBP got elected and successfully brought down the prices by 10% each year. Find approximately by what percentage would prices in 1999 have been more than prices in 1992?
A) 18% B) 5% C) 8% ✓D) 7%

Explanation:-

1991	1992	1993	1994	1995	1996	1997	1998	1999
100	110	121	133.1	146.41	161.051	144.9	130.4	117.3

$$\text{Required percentage} = \frac{117.3-110}{100}\times 100 = 7.3\%$$

DIRECTIONS for the question: *Solve the following question and mark the best possible option.*

Question No. : 12

A bank offers an interest of 6% per annum which is calculated at the end of the year. Another bank offers 10% interest per annum which is calculated and added every six months. What is the difference in the interest on a deposit of Rs. 1000?

✓A) Rs. 40 B) Rs. 42.50 C) Rs. 41.50 D) Rs. 40.50

Explanation:-

DIRECTIONS for the question: *Solve the following question and mark the best possible option.*

Question No. : 13

A mining work can be undertaken only between 9 AM to 6 PM. If A and B work entirely during these hours, they can complete the work alone in 18 days and 22 days respectively. If A and B both start together on 25th Nov at 12 noon, when should B stop doing the work so that the work will be completed exactly on 09th Dec at 12 noon?

A) 30thNov 12 Noon B) 01stDec 12 Noon ✓C) 30thNov 11 AM D) 01stDec 1 PM

Explanation:- *Both A and B work for 9 hours daily. A can do the work in 18 days and B can do it in 22 days.*
Total days = 14
A will do 14/18 or 7/9th of the total work in these 14 days.
Remaining work is 2/9 which will be done by B.
So B will take 2 × 22/9 = 44/9 or 4 8/9 days or 4 days 8 hours to complete it.
Hence, he will leave the work on 30th Nov at 11 am.

DIRECTIONS for the question: *Solve the following question and mark the best possible option.*

Question No. : 14

The Average weight of three men A, B and C is 84 kg. D joins them and the average weight of the four becomes 80 kg. If E whose weight is 3 kg more then that of D replaces A, the average weight of B, C, D and E becomes 79 kg. The weight of A is.

A) 65 kg B) 70 kg ✓C) 75 kg D) 80 kg

Explanation:- *Total weight of A, B and C = 84 × 3 = 252 kg.*
D's weight = 80 × 4 - 84 × 3 = 68 kg.
E's weight = 68 + 3 =71 kg.
Total weight of B, C, D and E = 79 × 4 = 316 kg.
Then, total weight of B and C = 316 - 68- 71 = 177 kg.
Hence, A's weight = 252 - 177 = 75 kg.

DIRECTIONS for the question: *Solve the following question and mark the best possible option.*

Question No. : 15

The average marks of 6 students in a test is 64. All the students got different marks, one of the students obtained 70 marks and all other students scored 40 or above. The maximum possible difference between the second highest and the second lowest marks is

A) 50 ✓B) 54 C) 57 D) 58

Explanation:- *Let the marks of the students be $a < b < c < d < e < f$*
To get the maximum difference, 'e' should be maximum and b should be minimum.
So a shoukd be 40 and b should be 41.

Sum of marks = 64 × 6 = 384.
E should be as high as possible, If c is 70 then d has to be more than 70 and in that case the value of e will become less as the sum is constant, So take d = 70, then c = 42.
Then a + b + c + d = 40 + 41 + 42 + 70 = 193
Then e + f = 384 - 193 = 191
e < f, e is as high as possible, So take e = 95 , f = 96
So, e - b = 95 - 41 = 54.

DIRECTIONS for the question: *Solve the following question and mark the best possible option.*

Question No. : 16

What will be the ratio of petrol and kerosene in the final solution formed by mixing petrol and kerosene that are present in three vessels in the ratio 4:1,5:2 and 6:1, respectively?

A) 166: 22 ✓B) 83:22 C) 83:44 D) None of these

Explanation:- *Solution in first vessel = 4 : 1 = 5 × 7*
Solution in second vessel = 5 : 2 = 7 × 5
Solution in third vessel = 6 : 1 = 7 × 5
Now, ratio in first, second and third vessel are respectively 28 : 7, 25 : 10 and 30 : 5.
∴Required ratio
28:7
25:10
30:5
83:22

DIRECTIONS for the question: *Solve the following question and mark the best possible option.*

Question No. : 17

In an examination, Rama's score was one-twelfth of the sum of the scores of Mohan and Anjali. After a review, the score of each of them increased by 6. The revised scores of Anjali, Mohan, and Rama were in the ratio 11:10:3. Then Anjali's score exceeded Rama's score by

✓A) 32 B) 35 C) 24 D) 26

Explanation:- *Let the scores of Rama, Mohan and Anjali are R,M and A respectively.*
$R = \frac{1}{12}(M+A)$
After the score of each of them increased by 6, the ratio of their scores are 11:10:3 fo Anjali, Mohan & Rama respectively.
Let their scores are 11x, 10x, 3x.
Their original scores before the increase were
11x-6, 10x-6, 3x-6 respectively
So $3x-6 = \frac{1}{12}(11x-6 + 10x -6)$
$3x - 6 = \frac{1}{12}(21x -12)$
$\Rightarrow x = 4$
Anjali's score exceeded Rama's score by
(11x-6)-(3x-6)=8x=32

DIRECTIONS for the question: *Solve the following question and mark the best possible option.*

Question No. : 18

Anil, Sunil, and Ravi run along a circular path of length 3 km, starting from the same point at the same time, and going in the clockwise direction. If they run at speeds of 15 km/hr, 10 km/hr, and 8 km/hr, respectively, how much distance in km will Ravi have run when Anil and Sunil meet again for the first time at the starting point?

A) 5.2 B) 4.6 ✓C) 4.8 D) 4.2

Explanation:- *Time taken by Anil to complete one round = 3/15*
Time taken by Sunil to complete one round = 3/10
Time taken by Anil and Sunil to meet at the starting point first time = 3/5 hrs
Distance travelled by Ravi in 3/5 hrs = 8×3/5 = 4.8 kms

DIRECTIONS for the question: *Solve the following question and mark the best possible option.*

Question No. : 19

Gupta and Sharma both drive to their new home 600 km away. Gupta drives the family cat at an average speed of 65 km/hr. Sharma drives their office truck at an average speed of 50 km/hr. During the trip Gupta stops for a total time of 2 hours and 20 minutes and Sharma stop for 90 minutes. What is the approx., difference in minutes of their arrival times?

✓A) 91 B) 131 C) 129 D) 116

Explanation:-

DIRECTIONS for the question: *Solve the following question and mark the best possible option.*

Question No. : 20

Two guns were fired from the same place at an interval of 6 minutes. A person approaching the place observed that 5 min 52 seconds have elapsed between the hearings of the sound of two guns. If the velocity of the sound is 330 meter/ second, the man was approaching that place at what speed in kilometer per hour?

A) 24 km/hr B) 18 km/hr C) 21 km/hr ✓D) 27 km/hr

Explanation:- *Distance covered by sound in 8 sec (6m - 5m 52sec) is equal to distance covered by man in 5 min and 52sec so we can use ratio method*
Ratio of time
sound Man
8 sec 352 sec
8 : 352
1 : 44

Speeds ⇒ 44:1
Speed of sound is 330 m/sec. speed of man 7.5 m/sec

7.5 × 18/5 = 27 km/h

Section : Logical Reasoning

DIRECTIONS for the question: *Read the information given below and answer the question that follows.*

Question No. : 21

Four exams are to be ranked from 1 to 4 on the basis of the number of test takers - the one with the highest number of test takers being ranked 1 and the one with the least number of test takers, being ranked 4. The exams to be ranked are MAGT. REG, TILES and FELTO.

The following data is known regarding the ranking:

(a) If MAGT is ranked 1. then REG is not ranked 3.
(b) If REG is not ranked 1, then FELTO is ranked 4.
(c) If TILES is ranked 3, then FELTO is not ranked 2.
(d) If TILES is not ranked 2, then FELTO is ranked 2.
(e) If FELTO is ranked 3, then MAGT is not ranked 4.

Which exam has the highest number of test takers?

A) MAGT ✓B) REG C) TILES D) FELTO

Explanation:-
From D, we know that either TILES or FELTO should be ranked 2.
Possibility 1:
TILES Is ranked 2: If we assume that MAGT is ranked 1, then REG gets rank 4 (from (a)), but this is contradicted by B, MAGT cannot be ranked 1.
As per (b), in case REG is not ranked 1. then FELTO is ranked 4, which means REG is ranked 3 and MAGT is ranked 1, which is not possible. Hence, REG has to be ranked 1. We can have FELTO as rank 3, which means that MAGT has to be ranked 4, but this is contradicted by (e). Hence. FELTO has to be ranked 4 and MAGT has to be ranked 3.
∴The order will be

Rank	1	2	3	4
Exam	REG	TILES	MAGT	FELTO

Possibility 2:
FELTO is ranked 2: As seen earlier, MAGT cannot get 1st rank, as it would contradict the other given conditions. Hence REG is ranked 1. From C, we know that TILES cannot be ranked 3 as in that case FELTO cannot be ranked 2. Hence TILES has to be ranked 4. This leaves MAGT with rank 3.
∴The order will be

Rank	1	2	3	4
Exam	REG	FELTO	MAGT	TILES

In both the cases, REG has the highest number of test takers.
Choice (B)

DIRECTIONS for the question: *Read the information given below and answer the question that follows.*

Question No. : 22

Four exams are to be ranked from 1 to 4 on the basis of the number of test takers - the one with the highest number of test takers being ranked 1 and the one with the least number of test takers, being ranked 4. The exams to be ranked are MAGT. REG, TILES and FELTO.

The following data is known regarding the ranking:

(a) If MAGT is ranked 1. then REG is not ranked 3.
(b) If REG is not ranked 1, then FELTO is ranked 4.
(c) If TILES is ranked 3, then FELTO is not ranked 2.
(d) If TILES is not ranked 2, then FELTO is ranked 2.
(e) If FELTO is ranked 3, then MAGT is not ranked 4.

Which exam has the least number of test takers?

A) FELTO B) TILES C) REG ✓D) Cannot be determined

Explanation:-
From D, we know that either TILES or FELTO should be ranked 2.
Possibility 1:
TILES Is ranked 2: If we assume that MAGT is ranked 1, then REG gets rank 4 (from (a)), but this is contradicted by B, MAGT cannot be ranked 1.
As per (b), in case REG is not ranked 1. then FELTO is ranked 4, which means REG is ranked 3 and MAGT is ranked 1, which is not possible. Hence, REG has to be ranked 1. We can have FELTO as rank 3, which means that MAGT has to be ranked 4, but this is contradicted by (e). Hence. FELTO has to be ranked 4 and MAGT has to be ranked 3.
∴The order will be

Rank	1	2	3	4
Exam	REG	TILES	MAGT	FELTO

Possibility 2:
FELTO is ranked 2: As seen earlier, MAGT cannot get 1SI rank, as it would contradict the other given conditions. Hence REG is ranked 1. From C, we know that TILES cannot be ranked 3 as in that case FELTO cannot be ranked 2. Hence TILES has to be ranked 4. This leaves MAGT with rank 3.
∴The order will be

Rank	1	2	3	4
Exam	REG	FELTO	MAGT	TILES

The exam with the least number of test takers is either FELTO or TILES. Choice (D)

DIRECTIONS for the question: *Read the information given below and answer the question that follows.*

Question No. : 23

Four exams are to be ranked from 1 to 4 on the basis of the number of test takers - the one with the highest number of test takers being ranked 1 and the one with the least number of test takers, being ranked 4. The exams to be ranked are MAGT. REG, TILES and FELTO.

The following data is known regarding the ranking:

(a) If MAGT is ranked 1. then REG is not ranked 3.
(b) If REG is not ranked 1, then FELTO is ranked 4.
(c) If TILES is ranked 3, then FELTO is not ranked 2.
(d) If TILES is not ranked 2, then FELTO is ranked 2.
(e) If FELTO is ranked 3, then MAGT is not ranked 4.

Which exam is ranked third?

A) FELTO B) TILES C) REG ✓D) MAGT

Explanation:-
From D, we know that either TILES or FELTO should be ranked 2.
Possibility 1:
TILES Is ranked 2: If we assume that MAGT is ranked 1, then REG gets rank 4 (from (a)), but this is contradicted by B, MAGT cannot be ranked 1.
As per (b), in case REG is not ranked 1. then FELTO is ranked 4, which means REG is ranked 3 and MAGT is ranked 1, which is not possible. Hence, REG has to be ranked 1. We can have FELTO as rank 3, which means that MAGT has to be ranked 4, but this is contradicted by (e). Hence. FELTO has to be ranked 4 and MAGT has to be ranked 3.
∴The order will be

Rank	1	2	3	4
Exam	REG	TILES	MAGT	FELTO

Possibility 2:
FELTO is ranked 2: As seen earlier, MAGT cannot get 1SI rank, as it would contradict the other given conditions. Hence REG is ranked 1. From C, we know that TILES cannot be ranked 3 as in that case FELTO cannot be ranked 2. Hence TILES has to be ranked 4. This leaves MAGT with rank 3.
∴The order will be

Rank	1	2	3	4
Exam	REG	FELTO	MAGT	TILES

In both the cases, MAGT is ranked third. Choice (D)

DIRECTIONS for the question: *Read the information given below and answer the question that follows.*

Question No. : 24

At a conference about corporate governance in data technology companies, a series of speakers is selected from the group of Anu, Balvinder, Chetan, Deepti, Eshwar, Farid, and Gopal in order to start engaging discussions that would interest the crowd. The speakers who are selected are determined by the following constraints:

I. If Eshwar speaks, then Deepti does not speak.
II. If Farid does not speak, then Deepti speaks.
III. If Chetan does not speak, then Balvinder does not speak.
IV. If Farid speaks, then Anu speaks.
V. If Deepti speaks, then Balvinder speaks.

If Balvinder does not speak, then which of the following must be true?

A) Gopal speaks with Anu B) Farid does not speak, but Eshwar does speak ✓C) Anu speaks, but Deepti does not speak
D) Deepti and Farid both speak

Explanation:- *If Balwinder does not speak, it means then Deepti does not speak.(condition V)*
If Deepti does not speak,Farid speak.(condition II)
If Farid speaks , Anu speaks.(Condition IV)
Hence option 3

DIRECTIONS for the question: *Read the information given below and answer the question that follows.*

Question No. : 25

Six reviewers- Anil, Rohit, Kanika, Pooja, Ketan, and Lena-will review four movies- *Sholey, Aankhey, Krantiveer,* and Gandhi - according to the following conditions:

- Each reviewer reviews exactly one movie, and each movie is reviewed by at least one of the six reviewers.
- Kanika reviews the same movie as Anil.
- Lena reviews the same movie as exactly one other reviewer.
- Rohit reviews *Sholey.*
- Pooja reviews else *Gandhi.*
- Kanika does not review *Gandhi.*

If Ketan reviews the same movie as exactly one other reviewer, which one of the following is a complete and accurate list of the movies any one of which could be the movie that these two reviewers review?

A) Sholey, Aankhey B) Sholey, Krantiveer ✓C) Aankhey, Krantiveer D) Sholey, Krantiveer, Gandhi

Explanation:-

Among the given condition we have
Anil ----
Kanika-----
Rohit---- Sholey
Pooja----- Gandhi
Ketan-----
Leena----
Ketan cannot review Sholey with Rohit as in that case we are left with Lena, Anil and Kanika. Now Anil and Kanika will review same movie and Lena will review the movie with another person. So we are left with two movies and out of these two movies only one can be reviewed independently. Similarly Ketan cannot review Gandhi with Pooja. So option 1, 2 and 4 are rejected. So answer is option 3.

DIRECTIONS for the question: *Solve the following question and mark the best possible option.*

Question No. : 26

A watch which gains 5 seconds in 3 minutes was set right at 7 a.m. In the afternoon of the same day, when the watch indicated quarter past 4 o'clock, what is the true time?

✓A) 4 PM B) 4.05 PM C) 4.10 PM D) 3.55 PM

Explanation:-

DIRECTIONS for the question: *Solve the following question and mark the best possible option.*

Question No. : 27

It was Sunday on Jan 1, 2006. What was the day of the week Jan 1, 2010?

A) Sunday B) Saturday ✓C) Friday D) Wednesday

Explanation:- *from Jan 2006 to Jan 2010, number of odd days = 1+1+2+1 = 5 odd days so 1 Jan 2010 will be sunday + 5 = Friday*

DIRECTIONS for the question: *Solve the following question and mark the best possible option.*

Question No. : 28

There are only four members of a family viz., A, B, C and D and there is only one couple among them. When asked about their relationships, following were their replies (given one of them always speaks the truth, one of them always lies and the rest two alternate between the truth and lies):

A. A: B is my son. D is my mother.
B. B: C is my wife. D is my father.
C. C: D is my mother-in-law. A is my daughter.
D. D: A is my grand-daughter. B is my daughter-in-law.

Who always speaks the truth?

A) A B) B C) C ✓D) Cannot be determined

Explanation:- *To solve such type of questions, we take 4 cases considering A, B, C and D to be the one who speaks both the statements as true in each case.*
Let us take a look at the 4 cases.
Case 1: When both the statements of A are true.
We get,

	Statement 1	Statement 2
A	T	T
B	T	F
C	F	F
D	F	F

However, this is not possible as we can't have 2 people speaking both statements false.
Case 2: When both the statements of B are true.

	Statement 1	Statement 2
A	F	F
B	T	T

C	F	T
D	T	F

Hence, this case is possible.
Case 3: When both the statements of C are true.

	Statement 1	Statement 2
A	F	F
B	T	F
C	T	T
D	T	F

Hence, this case is also possible.
Case 4: When both the statements of D are true.

	Statement 1	Statement 2
A	F	F
B	F	F
C	F	T
D	T	T

However, this is not possible as we can't have 2 people speaking both statements false.
According to Case II and Case III, the two possibilities are:
D is the grandfather, B is the husband, C is B's wife and A is their daughter
C is B's husband and A is their daughter and D is father/Mother of C

As per the cases discussed above, both B and C can be the ones whose both the statements are true.
Hence answer is D option i.e. cannot be determined

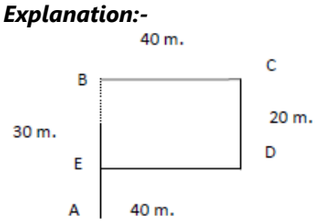
DIRECTIONS for the question: *Solve the following question and mark the best possible option.*

Question No. : 29

Milind goes 30 metres North, then turns right and walks 40 metres, then again turns right and walks 20 metres then again turns right and walks 40 metres. How many metres is he from his original position?

A) 5 ✓B) 10 C) 15 D) 20

Explanation:-



So Distance is AE=30-20=10 m.

DIRECTIONS for the question: *Solve the following question and mark the best possible option.*

Question No. : 30

Find the odd number from the given series 2, 6, 16, 38, 84, 176, 368

A) 6 B) 84 ✓C) 176 D) 368

Explanation:- *The series follow the pattern as*
6 = 2 × 2 + 2
16 = 6 × 2 + 4
38 = 16 × 2 + 6
84 = 38 × 2 + 8 (All follows the pattern till here)
178 = 84 × 2 + 10 (here 176 is given which is wrong)
368 = 176 × 2 + 12 (follows the pattern)
Hence, the number which is wrong in the series is 176 : ***Option 3***

DIRECTIONS for the question: *Solve the following question and mark the best possible option.*

Question No. : 31

In the following number sequence, how many such even numbers are there which are exactly divisible by its immediate preceding number but not exactly divisible by its immediate following number ?

3 8 4 15 7 2 8 3 4 9 3 4 8 9 4 2 1 5 8 2
A) Three ✓B) Two C) Four D) More than four

Explanation:- *There are 2 such pair*
2 8 3 and 4 8 9

DIRECTIONS for the question: *In this question a group of number/symbol followed by five combinations of letter codes is given. You have to find out which of the combinations correctly represents the group of number/symbol based on the given coding system and the conditions and mark that combination as your answer*

Question No. : 32

GM = 10, KT = 4, PS = 7, DI = ?, CP = ?

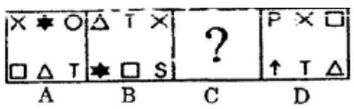
A) 4, 7 ✓B) 9, 12 C) 9, 5 D) 4, 8

Explanation:- *DI = 4*9=36 => 3+6 =9*
*CP= 3*16 = 48=> 4+8 =12*

Section : Abstract Reasoning

DIRECTIONS for the question: *In the question given below which one of the answer figures should come after the problem figures given, if the sequence were continued?*

Question No. : 33

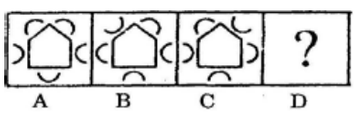


A)  B)  ✓C)  D) 

Explanation:-
*Studying carefully the given figures we observe that the symbol in the middle of lower line of symbols goes on the top left corner in the next figure . Now the answer figure should have **P** in he middle of lower line as it is in the top left corner in figure **D.** So, option (3) is correct.*

DIRECTIONS for the question: *In the question given below which one of the answer figures should come after the problem figures given, if the sequence were continued?*

Question No. : 34



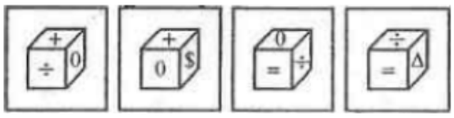
✓A)  B)  C)  D) 

Explanation:-
Studying the semicircular figures outside the pentagon we notice that the semicircle on the left gets inverted every time so it should be facing outside in the answer hence only (1) satsfies it. hence only (1) can be correct.

DIRECTIONS for the question: *Solve the following question and mark the best possible option.*

Question No. : 35

Four views of a dice have been shown below, which of the following symbols is on the face opposite to the face having the symbol ÷ ?



✓A) $ B) 0 C) = D) Δ

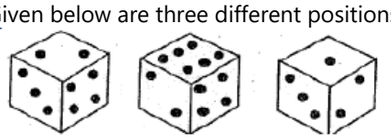
Explanation:-

When a cube is seen from any side, all the free faces visible can never be opposite each other. Applying the same logic we can see +, =, Δ and 0 along with the division sign. So those cannot be opposite division sign. Hence the correct answer should be $.

DIRECTIONS for the question: *Solve the following question and mark the best possible option.*

Question No. : 36

Given below are three different positions of a dice. Find the number of dots on the face opposite the face bearing 3 dots



A) 4 B) 5 ✓C) 6 D) Cannot be determined

Explanation:-

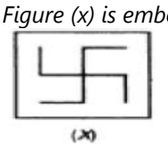
From dice 1 and 3 it can be determined that 1 and 4 are opposite. From 2nd 3rd we can conclude that 3 and 6 are opposite

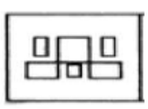
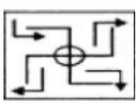
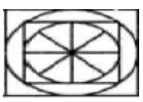
Hence the face opposite to 3 must be 6

DIRECTIONS for the question: *Answer the following question as per the best of your judgment.*

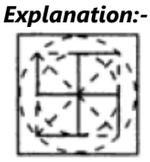
Question No. : 37

Figure (x) is embedded in any of the four alternative figures. Find the alternative which contains figure (x).



A)  B)  ✓C)  D) 

Explanation:-

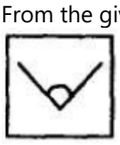


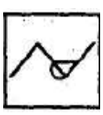
Answer is 3rd option.

DIRECTIONS for the question: *Answer the following question as per the best of your judgment.*

Question No. : 38

From the given answer figures, select the one in which the question figure is hidden/embedded in the same direction.



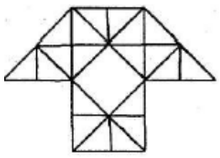
A)  B)  C)  ✓D) 

Explanation:-

DIRECTIONS for the question: *Answer the following question as per the best of your judgment.*

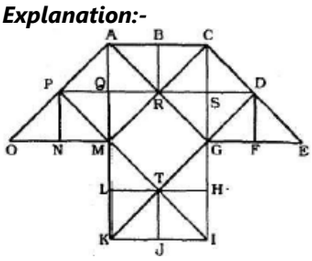
Question No. : 39

How many triangles are there in the given figure?



A) 29 B) 38 ✓C) 43 D) 35

Explanation:-



The simplest triangles are :

Δ PNO; Δ PNM; ΔMPQ;
Δ MQR; ΔAQP; Δ AQR:
Δ BRA; ΔBRC; ΔSRC;
Δ SCD; ΔSGR; ΔSGD;
Δ DFG; ΔDFE; ΔTLM:
Δ TJK; Δ TLK; ΔTIH;

The triangles composed of two components are:
Δ PON; Δ PMA; Δ APR;
Δ RAM; Δ RAC; Δ RGC;
Δ DGC; Δ DGE; ΔMPR:
Δ GRD; Δ DCR; ΔTMK;
Δ TKI; ΔTIG

The triangles composed of four components are:

Δ AMO; Δ AMC; Δ CAG;
Δ CGE; Δ MKI; Δ GIK;

Other triangles are : ΔSPI; ΔDQK
triangle TJI, THG, PDT
Total number of triangles 18 + 14 + 6 + 5 = 43

DIRECTIONS for the question: *Identify the meaning of the given idiom/ phrase.*

Question No. : 40

A man of straw:

A) A creditable man B) A very active man ✓C) A man of no or little substance D) An unreasonable man

Explanation:-
'A man of straw' means 'a person of little substance.Hence, option (C) is the correct answer.

DIRECTIONS for the question: *Which of the given option gives the mirror image of the given problem figure?*

Question No. : 41

A) 

B) 

✓C) 

D) 

Explanation:-
Here, we have to find out the mirror image of the given figure, which comes out to be figure 3. So, answer is option 3.

DIRECTIONS for the question: *Answer the following question as per the best of your judgment.*

Question No. : 42

In the answer choices are given the reflected views of the first figure. You are to point out which is the correct reflected view.

✓A)  B)  C)  D) 

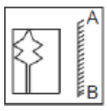
Explanation:-

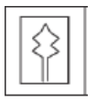
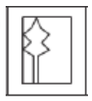
The reflected view of  is . *Hence, answer is option 1.*

DIRECTIONS for the question: *Answer the following question as per the best of your judgment.*

Question No. : 43

Which of the answer figures is exactly the mirror image of the given figure, when the mirror is held on the line AB?



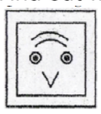
A)  ✓B)  C)  D) 

Explanation:- *Option B is the mirror image of the given question.*

DIRECTIONS for the question: *Answer the following question as per the best of your judgment.*

Question No. : 44

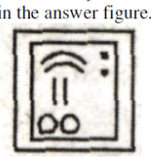
Find out which of the following answer figures will exactly make up the question figure ?



A)  ✓B)  C)  D) 

Explanation:-

All the components of the Question Figure are present in the answer figure.



Section : Diagrammatic Reasoning

DIRECTIONS for the question: *Given an input line ; the machine arranges the words and numbers in steps in a systematic manner as illustrated afterwards : Study the pattern and answer the question that follows.*

Question No. : 45

A number sorting machine when given an input of numbers, rearranges them in a particular manner step-by-step as indicated below till all the numbers arranged. Given below is an illustration of this arrangement.

Input:	39	121	48	18	76	112	14	45	63	96
Step I:	14	39	121	48	18	76	112	45	63	96
Step II:	14	39	48	18	76	112	45	63	96	121
Step III:	14	18	39	48	76	112	45	63	96	121
Step IV:	14	18	39	48	76	45	63	96	112	121

Step V:	14	18	39	45	48	76	63	96	112	121
Step VI:	14	18	39	45	48	63	76	96	112	121

And Step VI is the last step for this input.

What will be Step III for the following input?
Input: 68 182 39 93 129 46 21 58
A) 21 39 68 129 93 46 58 182 ✓B) 21 39 68 93 129 46 58 182 C) 21 68 39 93 129 46 58 182
D) Cannot be determined

Explanation:-
The numbers are arranged in ascending order stepwise form left to right, rearranging only one number at each step – one number from the beginning and one number from the end, alternately.

Input: 68 182 39 93 129 46 21 58
Step I: 21 68 182 39 93 129 46 58
Step II: 21 68 39 93 129 46 58 182
Step III: 21 39 68 93 129 46 58 182

DIRECTIONS for the question: *Given an input line ; the machine arranges the words and numbers in steps in a systematic manner as illustrated afterwards : Study the pattern and answer the question that follows.*

Question No. : 46

A number sorting machine when given an input of numbers, rearranges them in a particular manner step-by-step as indicated below till all the numbers arranged. Given below is an illustration of this arrangement.

Input:	39	121	48	18	76	112	14	45	63	96
Step I:	14	39	121	48	18	76	112	45	63	96
Step II:	14	39	48	18	76	112	45	63	96	121
Step III:	14	18	39	48	76	112	45	63	96	121
Step IV:	14	18	39	48	76	45	63	96	112	121
Step V:	14	18	39	45	48	76	63	96	112	121
Step VI:	14	18	39	45	48	63	76	96	112	121

And Step VI is the last step for this input.

Given below is the fifth step of an input. What will be third step ?
Step V: 17 32 43 82 69 93 49 56 99 106

A) 17 32 82 43 69 93 49 56 99 106 B) 17 32 82 69 43 93 49 56 99 106
C) 17 32 82 69 93 43 49 56 99 106 ✓D) Cannot be determined

Explanation:-
The numbers are arranged in ascending order stepwise form left to right, rearranging only one number at each step – one number from the beginning and one number from the end, alternately.

Since the numbers may be rearranged in several possible ways, so it is not possible to determine any of the previous steps.

DIRECTIONS for the question: *Study the flow chart give below and the questions that follow.*

Question No. : 47

What number is now in box 5?

Box No.	1	2	3	4	5	6	7	8	9	10
	6	3	9	2	11	2	91	48	66	1

Start

1. Add: (number in box 4) + (number in box 2), put result into box 7.
2. Add: (number in box 7) + (number in the box whose number is in box 6), put result into box 6.
3. Multiply: (number in box 6) X (number in box 1), put result into box 5

END What number is now in box 5?

A) 55 ✓B) 48 C) 44 D) 34

Explanation:- *Instruction 1 : 2[Box 4] 3[Box 2] = 5[Box 7]*
Instruction 2 : 5[Box 6] 3[Box 2] = 8[Box 6]
Instruction 3 : 8[Box 6] 6[Box 1] = 48[Box 5]

DIRECTIONS for the question: *Study the flow chart give below and the questions that follow.*

Question No. : 48

What number is now in box 11?

Box #	1	2	3	4	5	6	7	8	9	10	11	12
	2	1	4	4	6	5	2	12	5	19	1	0

START

1. Add: (number in box 2) + (number in the box whose number is in box 8), put result into box 4.
2. Multiply: (number in box 7) x (number in box 7), put result into box 7.
3. Is (number in box 4) = (number in box 9)?
   - YES → go to 2
   - NO → 4
4. Add: (number in box 4) + (number in box 1), put result into box 4.
5. Subtract: (number in box 7) - (number in box 2), put result into box 7.
6. Add: (number in box 3) + (number in box 9), put result into box 10.
7. Subtract: (number in box 7) - (number in box 10), put result into box 11.

END What number is now in box 11? _____

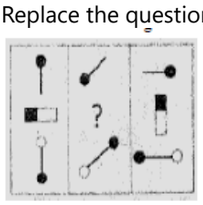
✓A) 55 B) 54 C) 23 D) 58

Explanation:- *Instruction 1 : 1[Box 2] + 0[Box 12] = 1[Box 4]*
*Instruction 2 : 2[Box 7] * 2[Box 7] = 4[Box 7]*
Instruction 3 : Is 1[Box 4] = 5[Box 9] ? NO
Instruction 4 : 1[Box 4 + 2[Box 1] = 3[Box 4]
Instruction 5 : 4[Box 7] - 1[Box 2] = 3[Box 7]
*Instruction 2 : 3[Box 7] * 3[Box 7] = 9[Box 7]*
Instruction 3 : Is 3[Box 4] = 5[Box 9] ? NO
Instruction 4 : 3[Box 4] + 2[Box 1] = 5[Box 4]
Instruction 5 : 9[Box 7] - 1[Box 2] = 8[Box 7]
*Instruction 2 : 8[Box 7] * 8[Box 7] = 64[Box 7]*
Instruction 3 : Is 5[Box 4] = 5[Box 9] ? YES
Instruction 6 : 4[Box 3] + 5[Box 9] = 9[Box 10]
Instruction 7 : 64[Box 7] - 9[Box 10] = 55[Box 11]

DIRECTIONS for the question: *Answer the following question as per the best of your judgment.*

Question No. : 49

Replace the question mark (?) out of Answer Figure.



A)  B)  C)  ✓D) 

Explanation:-
Every figure is moving 135 degree in anticlockwise direction.

So when we will solve the 2nd column, Pattern 4th will be formed.
Hence 4th is the required answer.

DIRECTIONS for the question: *Answer the following question as per the best of your judgment.*

Question No. : 50

Identify the figure that completes the pattern.

✓A)  B)  C)  D) 

Explanation:-
Rotating 90 degrees clockwise the figure inside the box of left bottom of Square.

DIRECTIONS for the question: *Choose the figure which is different from the rest.*

Question No. : 51

✓A)  B)  C)  D) 

Explanation:-
All other figures can be rotated into each other. Option A is the one, which cannot be made by rotating the other figures. Hence the answer is option 1.

DIRECTIONS for the question: *Choose the figure which is different from the rest.*

Question No. : 52

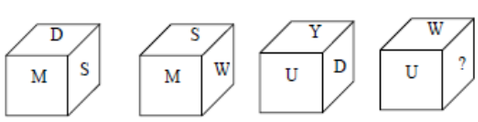
A)  ✓B)  C)  D) 

Explanation:-
Figure (b) has reverse shading in the rectangle, hence answer is B.

DIRECTIONS for the question: *Solve the following question and mark the best possible option.*

Question No. : 53

A cube, on whose sides letters have been written, is shown below in different positions as can be seen from different directions. Which letter will replace '?' mark?



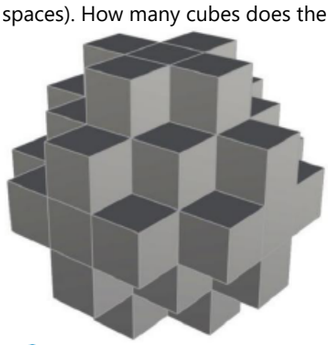
A) S B) D ✓C) Y D) W

Explanation:-
Careful observation shows that the alphabets on the four sides of D are M, S, U and Y. Now, the alphabet left is W which must be opposite to D. Hence the ? should be Y.

DIRECTIONS for the question: *Solve the following question and mark the most appropriate option.*

Question No. : 54

A solid object made of cubes is shown below. This object is symmetric about all three axes, and does not contain cavities (no hollow spaces). How many cubes does the solid contain?



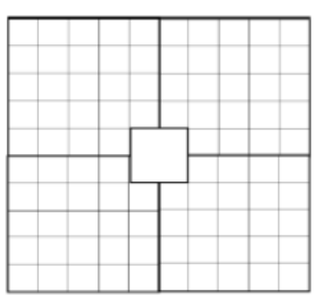
✓A) 57 B) 59 C) 61 D) 63

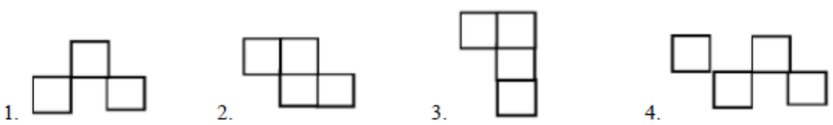
Explanation:- *Since, the object is symmetric so we have to count the additional cubes in each layer.*
The number of cubes in first layer = 5
Now, in second layer there are 8 additional cubes. So, number of cubes in second layer = 5 + 8 = 13
In third layer, there are again 8 additional cubes. So, number of cubes in third layer = 13 + 8 = 21
Since, figure being symmetric
Thus, the fourth layer is symmetric to second layer. So, number of cubes in fourth layer = 13
Also, the fifth layer is symmetric to first ayer. So, number of cubes in fifth layer = 5
So, total number of cubes = 5 + 13 + 21 + 13 + 5 = 57

DIRECTIONS for the question: *Solve the following question and mark the most appropriate option.*

Question No. : 55

The grid of squares shown in the figure is to be tiled (covered with tiles) with the tiles shown in the options. The covering tiles must not overlap and should not have gaps around them. Only four squares in the middle are not to be tiled. Once a tile is chosen, other tiles must be of that type only. Tiles can be flipped and rotated if required. Which of the tiles can be used to tile the given grid?





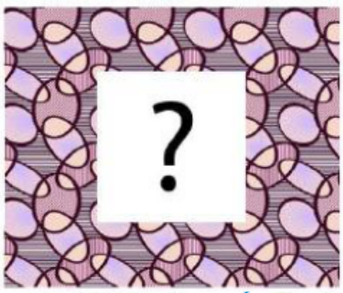
A) 1 B) 2 ✓C) 3 D) 4

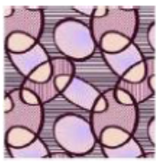
Explanation:- *By replacing the 3rd tile grid in different rotations the square grid satisfies all conditions as this option completes the cell without overlapping and there is no gap left in between,whereas other options do not satisfies the conditions. Hence option C is the correct answer.*

DIRECTIONS for the question: *Solve the following question and mark the most appropriate option.*

Question No. : 56

Which option will replace the question mark?



A) 
✓B) 
C) 
D) 

Explanation:- *Going by options,*

Option A is eliminated, because  *part i.e. left part does not fit and pattern doesn't follow.*

Option C is eliminated, because  *part i.e. left part does not fit and pattern doesn't follow.*

Option D is eliminated, because  *part i.e. left part does not fit and pattern doen't follow.*

Thus, option B is the answer.

Section : Verbal Usage & Reading Comprehension

DIRECTIONS for the question: *Read the passage and answer the question based on it.*

Question No. : 57

In *Sheela Barse* v. *Union of India,* the Supreme Court of India, had issued various directions in regard to the physically and mentally retarded children as also abandoned or destitute children who are lodged in various jails in the country for 'safe custody'. The Court further held:

So far as concerns pending cases relating to offences punishable with imprisonment of not more than 7 years, it is directed that every State Government shall complete the investigation within a period of 3 months from today if the investigation has not already resulted in filing of charge-sheet and if a charge-sheet has been filed, the trial shall be completed within a period of 6 months from today and if it is not, the prosecution shall be quashed.

The State Governments must set up necessary remand homes and observation homes where children accused of an offence can be lodged pending investigation and trial. On no account should the children be kept in jail and if a State government has not got sufficient accommodation in its remand homes or observation homes, the children should be released on bail instead of being subjected to incarceration in jail.

Instead of each State having its own Children's Act different in procedure and content from the Children's Act in other States, the Central Government should initiate Parliamentary Legislation on the subject, so that there is complete uniformity in regard to the various provisions relating to children in the entire territory of the country. The Children's Act which may be enacted by Parliament should contain not only provisions for investigation and trial of offences against children below the age of 16 years but should also contain mandatory provisions for ensuring social, economic and psychological rehabilitation of the children who are either accused of offences or are abandoned or destitute or lost.

What is the most important issue before the Court?

A) Unreasonable delay in trial processes, where child is accused, in r/o all kinds of offences
B) Delay in trial processes, which is unreasonable, in respect of specific kind of offences
C) Delay in trial processes, where child is accused, in respect of specific kind of offences
✓D) Unreasonable delay in trial processes, where child is accused, in respect of specific kind of offences

Explanation:-
The passage talks about the delay in the trial process. Second para "So far as concerns pending cases relating to offences punishable with imprisonment of not more than 7 years, it is directed that every State Government shall complete the investigation within a period of 3 months from today if the investigation has not already resulted in filing of charge-sheet and if a charge-sheet has been filed, the trial shall be completed within a period of 6 months from today and if it is not, the prosecution shall be quashed" justifies option 4 as the answer.

DIRECTIONS for the question: *Read the passage and answer the question based on it.*

Question No. : 58

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Instead of each State having its own Children's Act different in procedure and content from the Children's Act in other States, the Central Government should initiate Parliamentary Legislation on the subject, so that there is complete uniformity in regard to the various provisions relating to children in the entire territory of the country. The Children's Act which may be enacted by Parliament should contain not only provisions for investigation and trial of offences against children below the age of 16 years but should also contain mandatory provisions for ensuring social, economic and psychological rehabilitation of the children who are either accused of offences or are abandoned or destitute or lost.

Can we say that there is lack of conformity in various State laws?
A) Yes B) Yes, but only if such inference is drawn in context to juvenile laws C) No
✓D) Inference can-not be drawn on the basis of given facts

Explanation:-
The passage does not include conclusive details on the matter. Thus, the answer is option 4.

DIRECTIONS for the question: *Read the passage and answer the question based on it.*

Question No. : 59

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Which of the following statements is true?

A) The Court presumes that the State has infrastructure available to speed-up the trial.
B) The Court presumes that since State is responsible for causing delay in trial process, it should be held liable to speed up the trial process.
✓C)The Court means to say that irrespective of who is responsible for causing delay in trial process, the State should be made duty bound to speed up the trial process.
D) The Court presumes that the process can be speeded up with the existing infrastructure available with the State agencies.

Explanation:-
It has been mentioned that the court wants the states to speed up the trial process. The answer in the context is 3.

DIRECTIONS for the question: *Read the passage and answer the question based on it.*

Question No. : 60

In *Sheela Barse* v. *Union of India,* the Supreme Court of India, had issued various directions in regard to the physically and mentally retarded children as also abandoned or destitute children who are lodged in various jails in the country for 'safe custody'. The Court further held:

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Find out synonym of 'abrogate' from the above stanzas.
✓A) Quashed B) Destitute C) Enacted D) Uniformity

Explanation:-
Abrogate means to cancel, and the word quashed has the same meaning. The words therefore are synonymous.
refer lines - Government shall complete the investigation within a period of 3 months from today if the investigation has not already resulted in filing of charge-sheet and if a charge-sheet has been filed, the trial shall be completed within a period of 6 months from today and if it is not, the prosecution shall be quashed.

DIRECTIONS for the question: *Read the passage and answer the question based on it.*

Question No. : 61

Stem cells have recently become an important focus for scientific research around the world. They have two important characteristics that distinguish them from other types of cells. First, they are unspecialized cells that renew themselves for long periods through cell division. Also, under certain physiologic or experimental conditions, they can be induced to become cells with special functions such as the beating cells of the heart muscle or the insulin-producing cells of the pancreas.

Scientists primarily work with two kinds of stem cells from animals and humans: embryonic stem cells and adult stem cells, which each have different functions and characteristics. Scientists discovered ways to obtain or derive stem cells from early mouse embryos more than 20 years ago. Many years of detailed study of the biology of mouse stem cells led to the discovery, in 1998, of a means to isolate stem cells from human embryos and grow the cells in the laboratory. These are called human embryonic stem Cells. The embryos used in these studies were created for infertility purposes through in vitro fertilization; procedures, and when they were no longer heeded for that purpose, they were donated for research with the informed consent of the donor.

Stem cells are important for living organisms for many reasons. In the 3- to 5-day-old embryo, called a blastocyst, a small group of about 30 cells called the inner cell mass gives rise to-the hundreds of highly specialized cells needed to make up an adult organism. In the developing foetus, stem cells in developing tissues give rise to the multiple specialized cell types that make up the heart, lung, skin, and other tissues. In some adult tissues, such as bone marrow, muscle, and brain, .discrete populations of adult stem cells generate replacements for cells that are lost through normal wear and tear, injury, or disease. It has even been hypothesized that stem cells may someday become the basis for treating diseases such as Parkinson's disease, diabetes, and heart disease.

Scientists want to study stem cells in the laboratory so they can learn about their *essential* properties and what makes them different from specialized cell types. As scientists learn more about stem cells, it may become possible to use the cells not just in cell-based therapies but also for screening new drugs and toxins and understanding birth defects. Current research goals include both determining precisely how stem cells remain unspecialized and self-renewing for so long and identifying the signals that cause stem cells to become specialized cells.

The author's primary purpose in writing this passage was to

A) argue the necessity for an effective diabetes treatment and oppose the use of mouse embryonic stem cell research
B) aggressively defend the ethicality of gathering embryonic stem cells from human embryos
C) hesitantly debate the role stem cells will most certainly play in future medicine
✓D) explain stem cell research in relatively basic terms and point out its greatly untapped potential

Explanation:-
The author centers the research about and possible uses of the stem cells

DIRECTIONS for the question: *Read the passage and answer the question based on it.*

Question No. : 62

Stem cells have recently become an important focus for scientific research around the world. They have two important characteristics that distinguish them from other types of cells. First, they are unspecialized cells that renew themselves for long periods through cell division. Also, under certain physiologic or experimental conditions, they can be induced to become cells with special functions such as the beating cells of the heart muscle or the insulin-producing cells of the pancreas.

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According to the passage, the hypothesis, given in the end of the third paragraph, that stem cells hold the key to treating some, of the most troublesome diseases of our time would suggest which of the following?

A) Stem cell-research will provide the means for several preventive therapies, which could be put in place in a developing foetus.
B) Research in the field of stem cells is rapidly nearing its limit of applicability.
C) Cells that have already become specialized are of little use when it comes to disease treatment.
✓D) Stem cell research could prove more important in the medical world than anyone could have possibly anticipated.

Explanation:-
The mentioned line conveys the author's anticipation that stem cells will lead to the treatment of diseases which are very serious. The answer thus, is option 4

DIRECTIONS for the question: *Read the passage and answer the question based on it.*

Question No. : 63

Stem cells have recently become an important focus for scientific research around the world. They have two important characteristics that distinguish them from other types of cells. First, they are unspecialized cells that renew themselves for long periods through cell division. Also, under certain physiologic or experimental conditions, they can be induced to become cells with special functions such as the beating cells of the heart muscle or the insulin-producing cells of the pancreas.

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Which one of the following statements is best supported by the properties of stem cells listed by the author?
✓A) A single cell may originate as a stem cell, but it could still live the majority of its life span as a muscle tissue cell.
B) Stem cells' embody the peak of evolutionary achievement.
C) Embryo donors are vastly decreasing in numbers as legislation is passed against these sorts of infertility procedures.
D) Birth defects are most often caused by improper differentiation of cells from stem cells.

Explanation:-
As stated in the passage that stem cells can acquire any form/function when they are placed in place of damaged/infected cells so they may originate as stem cells, but when placed at some place in a body, they can remain there throughout. This is reflected in option 1.

DIRECTIONS for the question: *Read the passage and answer the question based on it.*

Question No. : 64

Suppose that your spouse wrongs you. Suppose that she shows up late for a dinner date. Or, more drastically, she cheats on you with your best friend. You will get angry and upset. She, in turn, will show remorse and make amends. You then will forgive her, and the two of you will move on. At least in theory.

But even in theory, Martha Nussbaum argues, this entire dynamic is morally dubious. It's transactional, Nussbaum says: Your anger, essentially, is the desire for your spouse to receive some kind of payback, a hurt in return for the wrong she did you. And the forgiveness that you ultimately extend is a reward for her remorse, and other efforts she might take to make things right. Each step is a quid pro quo. And quid pro quo, Nussbaum argues, is a profoundly misbegotten framework for dealing with the moral and emotional fallout of being wronged.

For one thing, no matter how angry you get, you in fact can never gain payback for the wrong done to you. You can't, Nussbaum notes, reverse your spouse's tardiness or infidelity by venting your anger at her; you can never recover what you lost, however small or large. And while her behavior might have exhibited a lack of respect for you, and while your anger might seem like a vehicle for asserting a compensating self-respect, you are simply satisfying your own amour-propre by expressing it, which is hardly edifying. Nor, all too often, is the promise you hold out of granting forgiveness in return for your spouse's remorse and amends -- anything other than manipulative, a way, however subtle or obvious, of extorting her repentance and apology. Your power to forgive simply allows you to enjoy an extended period of unattractive moral superiority before deigning to let her off the hook after sufficient groveling has occurred.

Better, Nussbaum argues, that we try at least to the degree that we can -- to avoid anger, the desire for payback in response to the wrongs we suffer, and abandon the very idea of forgiving, conditioned as it is on receiving remorse and contrition in exchange. Better, whenever we can, to follow the example of the father in the parable of the Prodigal Son. His love surges up at the sight of the long-lost offspring who caused him so much suffering, drowning any anger he might have felt toward and sidelining any demand for a show of remorse from his wayward child. For the prodigal son's father, generosity trumped any need for emotional quid pro quos. His conduct is a model, Nussbaum says, for all of us when we are wronged in our personal relationships.

In the given context, the noun 'amour-propre' means:

A) Mixed feelings consisting of pain and joy. B) Feelings exhibiting substantial consternation C) Emotions related to grief
✓D) Feelings of excessive pride

Explanation:- *Refer to the given context: And while her behavior might have exhibited a lack of respect for you, and while your anger might seem like a vehicle for asserting a compensating self-respect, you are simply satisfying your own amour-propre by expressing it, which is hardly edifying.*
We can clearly see that we need to select an answer option which is opposite in meaning to lack of self-respect. We find that in option 4.

DIRECTIONS for the question: *Read the passage and answer the question based on it.*

Question No. : 65

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A suitable title for the passage is:
A) Pardon and pity B) Absolve and ameliorate C) Regret and repent ✓D) Forgive and forget

Explanation:- *For the given question, the last paragraph of the passage is critical. The last paragraph of the passage is where the author drives home the point that there is no point in holding on to anger and that should forgive the person who has erred. This is the only way to get out of the cycle of exacting some sort of payback. Keeping this in mind, we can see that option 4 is the best answer in the given case.*

DIRECTIONS for the question: *Read the passage and answer the question based on it.*

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According to views attributed to Nassbaum in the passage, which of the following statements are correct?
I. Exacting payback for being emotionally hurt is justified to a certain extent only.
II. Actions once committed cannot be reversed.
III. It is nothing else but manipulation when force the person who has caused you grievance to make amends for his actions.

A) I & II ✓B) II & III C) III & I D) All of the above

Explanation:- *Nassbaum is actually against statement I: And quid pro quo, Nussbaum argues, is a profoundly misbegotten framework for dealing with the moral and emotional fallout of being wronged.*
Statement II is correct: You can't, Nussbaum notes, reverse your spouse's tardiness or infidelity by venting your anger at her; you can never recover what you lost, however small or large.
Statement III is correct: Nor, all too often, is the promise you hold out of granting forgiveness in return for your spouse's remorse and amends -- anything other than manipulative, a way, however subtle or obvious, of extorting her repentance and apology