MAT 2003

Intelligence & Critical Reasoning

Instructions [1 - 3]

Answer these questions based on the Following information.

A team of experts for conducting interviews consists of seven experts Bhushan, Cyriac, Pramila, Ram, Suresh, Shekhar and Unni. Of these Bhushan, Cyriac and Pramila are experts in Social Sciences while Suresh and Unni are experts in Basic Sciences. Ram and Shekhar had exposure in both basic sciences and social sciences. Three panels have to be formed for the interview with a restriction that a panel should have representation from experts with social sciences and basic sciences back ground. Moreover, at least one member should be an expert of only one area.

1. **If Cyriac does not like to be a member of panel with Ram, and Unni was in a panel with Shekhar, then the expert who did not participate in the**

A Pramila

B Cyriac

C Bhushan

D Any of these

Answer: D

2. **If Pramila did not participate in the interview, then who wasthe person mostlikely to be with Unni?**

A Suresh

B Bhushan

C Pramila

D Any of these

Answer: B

3. **Unni does notlike to be with Shekhar; Ram doesnotlike to be with Pramila and Bhushan had Suresh as the partner. If both Ram and Pramila attended the interview, then who was the partner to Cyriac?**

A Cyriac did not attend the interview

B Shekhar

C Pramila

D Unni

Answer: A

Instructions [4 - 7] These questions are baked on the following information. A set of eight candidates A, B, C, D, E, F, G and H are being interviewed by two panels of interviewers: Panel I and Panel II — from 9.30 to 10.50 on a particular day. Each panel will spend about 10 minutes per candidate and at no time during the interview process will a panel be without any candidate. The original schedules of interviews for the eight candidates are shown in the following table:

Candidate	Panel-I Time	Panel-II Time
A	9.30 to 9.40	10.10 to 10.20
B	9.40 to 9.50	10.20 to 10.30
C	9.50 to 10.00	10.30 to 10.40
D	10.00 to 10.10	10.40 to 10.50
E	10.10 to 10.20	9.30 to 9.40
F	10.20 to 10.30	9.40 to 9.50
G	10.30 to 10.40	9.50 to 10.00
H	10.40 to 10.50	10.00 to 10.10

Due to requests from the candidates, the interview schedule was altered for several candidates. The alterations were made in such a way that whenever a change was made,the time schedule for both the panels of a particular candidate was exchanged in entirety with the time schedule of another candidate. The following alterations were made:
I. A's place was taken by G
II. A in turn was accommodated in C's place
III. C in turn was accommodated in E's place
IV. E took H's place
V. H took G's place

4. **Which of the following candidates Finished the interviews along with E?**

A A

B C

C D

D F

Answer: C

5. **Which of the following candidates Finished the interviews before C?**

A B D Both of

B these

C None of these

D

Answer: D

6. **If G and A had to leave together, then how muchtime did any of them has to wait?**

A A has to wait 10 minutes

B G has to wait 20 minutes

C None of them hasto wait

D G hasto wait 30 minutes

Answer: B

7. **Which one of the Following statementsis true?**

A G could leave even before E's First interview was over

B F and left together

C D was the only candidate who could give companyto E

D All of these

Answer: C

Instructions [8 - 12]

Study the information given below to answer these questions.
(i) There is a family of 5 persons A, B, C, D and E.
(ii) They are working as a doctor, a teacher, a trader, a lawyer and a farmer.
(iii) B, an unmarried teacher, is the daughterof A.
(iv) E, a lawyer, is the brother of C.
(v) C, is husband of the only Married couple in the Family.
(vi) A, a farmer, is a father of two sons and an unmarried daughter.
(vii) Daughter-in-law of Ais a doctor.

8. **Which of the following is a group of female membersin the family?**

A B and D

B D and E

C A,C and E

D B and C

Answer: A

A (male, farmer) is father of B (female, teacher), E (male, lawyer), and C (male, trader)

C is married to D (female, doctor) which makes D the daughter in law of A and satisfies the given condition.
Hence, the females in the family are B, the daughter and D, the wife of C.

9. **Which of the Following is the married couple?**

A A and B

B C and D

C A and D

D B and D

Answer: B

Explanation:
From the given data, the following can be inferred about the family:
A (male, farmer) is father of B (female, teacher), E (male, lawyer), and C (male, trader)

C is married to D (female, doctor) which makes D the daughter in law of A and satisfies the given condition.

10. **Which of the following is a group of male membersin the family?**

A A,B and C

B B and D

C A,C and E

D A,C and D

Answer: C

Explanation:
From the given data, the following can be inferred about the family:
A (male, farmer) is father of B (female, teacher), E (male, lawyer), and C (male, trader)
C is married to D (female, doctor) which makes D the daughter in law of A and satisfies the given condition.
Hence, the males in the family are A,C, and E.

11. **Who is the doctorin the family?**

A A
B B

C C

D D

Answer: D

Explanation:
From the given data, the following can be inferred about the family:
A (male, farmer) is father of B (female, teacher), E (male, lawyer), and C (male, trader)

C is married to D (female, doctor) which makes D the daughter-in-law of A and satisfies the given condition.

12. **Who is the traderin the family?**

A A

B B

C C

D D

Answer: C

Explanation:
From the given data, the following can be inferred about the family:
A (male, farmer) is father of B (female, teacher), E (male, lawyer), and C (male, trader)

C is married to D (female, doctor) which makes D the daughter in law of A and satisfies the given condition.

Instructions [13 - 17]

On the basis of the following information, answer these questions.

Six people are sitting on the ground in a hexagonal shape. The hexagon's vertices are marked as A, B, C, D, E and F but not in any order. However,all the sides of the hexagon are of same length. Ais not adjacent to B or C; Dis not adjacent to C or E; B and C are adjacent; F is in the middle of D & C.

13. **If one neighbour of A is D, then whois the other one?**

A B

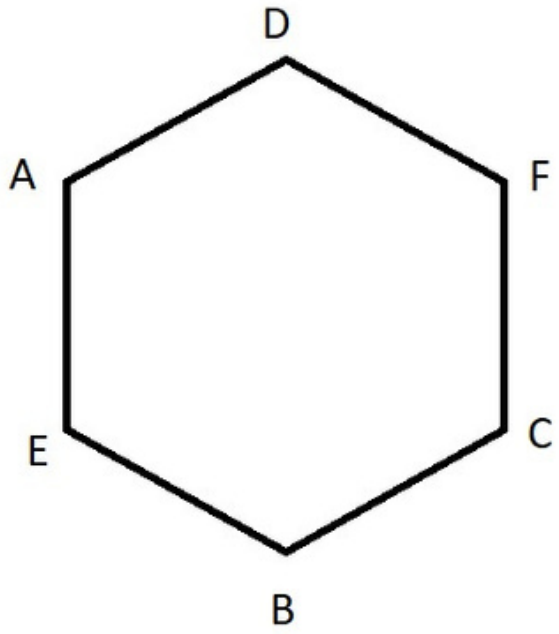
B C

C E

D F

Answer: C

Explanation:
The following arrangement can be arrived at :



14. **Who is placed opposite to E?**

A F

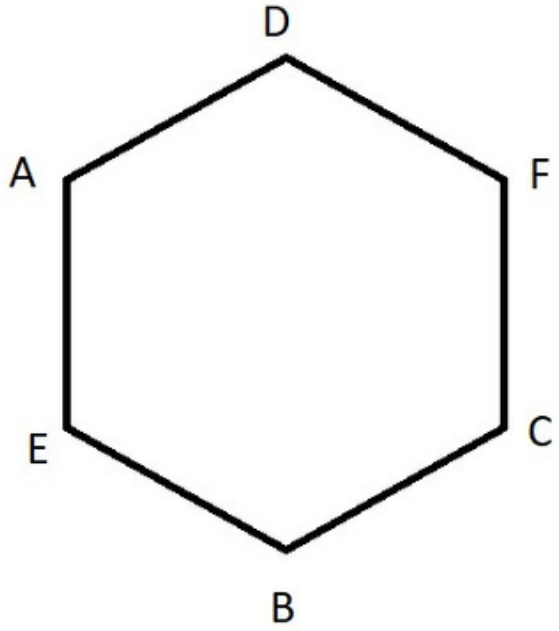
B D

C C

D B

Answer: A

Explanation:
From the given information, the following arrangement can be arrived at:



F sits opposite E.

15. **Who is at the same distance from D as Eis from D?**

A B

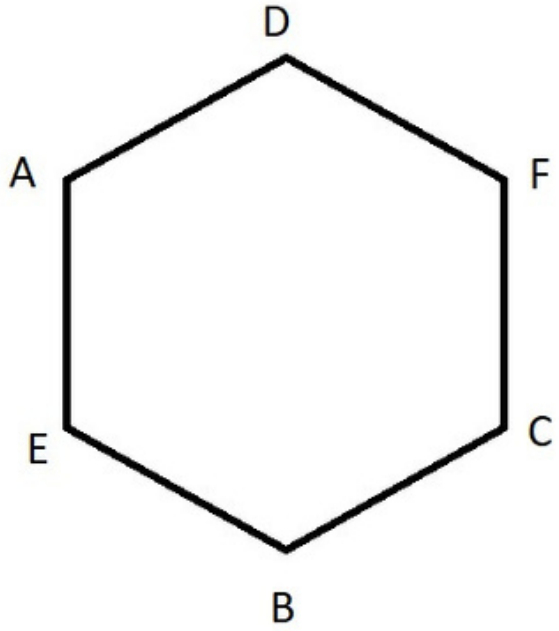
B C

C D

D F

Answer: B

Explanation:
The arrangement can be inferred as follows:



Hence, the person sitting from D at a distance which is equal to distance between D-E is C

16. **Which of the following is not a correct neighbouring pair?**

A B & E

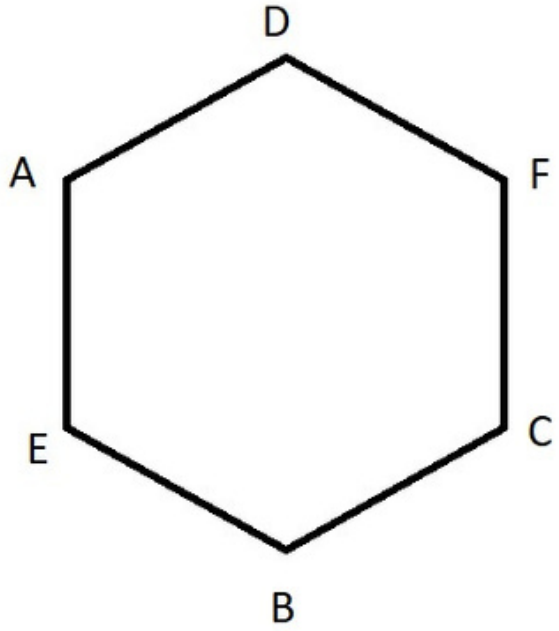
B C & F **C**

D & F **D**

A & F

Answer: D

Explanation:
From the given data, we can come up with the following arrangement:



Hence, option D is the answer.

17. **Which of the following is in the right sequence?**

A B, C, F

B A, F, B

C D, A, B

D F, A, E

Answer: A

Instructions [18 - 20]

In these questions some of the letters are missing. The missing letters are given in the proper sequence as one of the alternatives. Find the correct alternative.

18. **ab—abb—bba—b**

A aba

B bba **C**

bab **D**

baa

Answer: C

Explanation:

By Trial and Error method,

Option A

aba | abb | bbb | aab

The above letters do not form a series. Hence option A is incorrect.

Option B

abb | abb | bbb | aab

The above letters do not form a series. Hence option B is incorrect.

Option C

abb | abb | abb | abb

The above letters form a series.

Hence, the correct answer is Option C

19. **rst-vrs-uv-stu-rst-**

A rstrsts

B uvtrstu

C uvtrsuv

D utrvuv

Answer: D

Explanation:
The sequence has to be a repetition of the 5-letter sequence of r-s-t-u-v
Hence, the blanks can be filled suitably with corresponding letters and the last blank can be filled with 2 letters : u-v
Hence, option D.

20. **-c-ca-ab-bc-**

A abcac

B babca

C ccabb

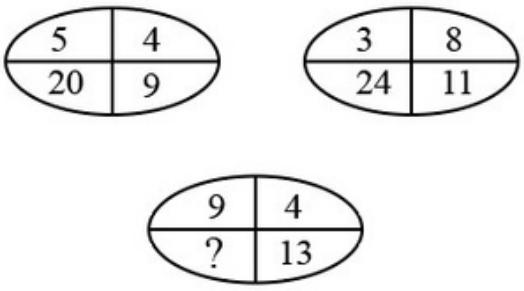
D bcabb

Answer: B

Instructions [21 - 22]

In these questions, choose the appropriate number for the quadrant in which the question mark appears.

21.



A 36

B 117

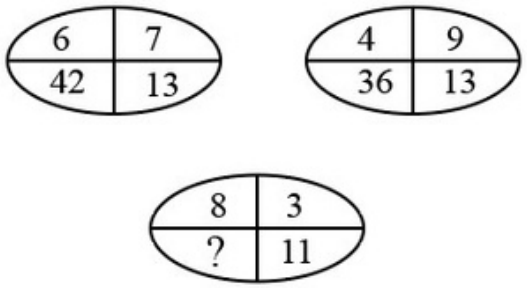
C 52

D 26

Answer: A

Explanation:
The right bottom cell contains the sum of the numbers in the top row while the left bottom cell contains the product of the numbers in the top row.
Hence, the missing number should be 4*9 = 36

22.



A 30

B 24 **C**

18 **D**

12

Answer: B

Explanation:
The bottom left number is the product of the numbers in the top two cells while the bottom right number is the sum of the numbers in the top 2 cells.
hence, the correct number in place of question mark would be 3*8 = 24

Instructions [23 - 25]

Six products U, V, W, X, Y and Z are to be placed in display windows of a shop. There are six display windows — numbered 1, 2, 3, 4, 5, 6 and one product is to be put in one window. Moreover, U cannot be immediately to the left or immediately to the right of V. W must be immediately to the left of X. Z can not be in window number 6.

23. **Which of the following products cannot be placed in window no. 1?**

A U

B V

C W

D X

Answer: D

24. **If X is placed in window no 3, then W must be placed in which window?**

A 1

B 2

C 4

D 5

Answer: A

25. **11 U is placed in window no. 5, then which of the following products must be placed in window no. 6?**

A V

B W

C X

D Y

Answer: B

Instructions [26 - 29]

In each of these questions, two statements are followed by two conclusions numbered I and II. Assume the given statementsto be true, even if they seem to beat variance with commonly knownfacts and then mark your answer as —

26. **Statements:**
All players are smokers.
Some smokers are wine-addicts.
Conclusions:
I. All smokers are players.
II. Some wine-addicts are smokers.

A If only conclusion I follows

B If only conclusion II follows

C If both the conclusions follow

D If neither I nor II follows

Answer: B

27. **Statements:**
All women are ministers.
All ministers are simpleton.
Conclusions:
I. All women are simpleton.
II. All ministers are simpleton.

A If only conclusion I follows

B If only conclusion II follows

C If both the conclusions follow

D If neither I nor II follows

Answer: C

Explanation:
"Women" is a complete subset of "Ministers" and "Ministers" is a complete subset of "Simpleton".
Hence, "women" would also be a complete subset of "simpleton".
Thus, the first conclusion is valid.
Second conclusion is given verbatim in the statements itself. Hence, both statements follow.

28. **Statements:**
All cars are not trains.
All cars are four-wheeled vehicles.
Conclusions:
I. All trains are not four-wheeled vehicles.
II. Some trains are four-wheeled vehicles.

A If only conclusion I follows

B If only conclusion II follows

C If both the conclusions follow

D If neither I nor II follows

Answer: D

Explanation:
From the statement: "All cars are four-wheeled vehicles." we can say that "cars" is a complete subset of "four wheeled vehicles".
However, from the statement "All cars are not trains.", we cannot say anything whether "trains" forms any overlap/intersection with "four wheeled vehicles" set.
"trains" might be completely included in "four wheeled vehicles", or partially, or completely exclusive.
Hence, neither of the conclusions follow.

29. **Statements:**
All jails are guest houses.
All guest houses are comfortable.
Conclusions:
I. All jails are comfortable.
II. No jail is comfortable.

A If only conclusion I follows

B If only conclusion II follows

C If both the conclusions follow

D If neither I nor II follows

Answer: A

Explanation: "Jails" is a complete subset of "guest houses" "Guest houses" is a complete subset of "Comfortable"

Naturally, "Jails" would be a complete subset of "Comfortable" and hence, only conclusion 1 follows.

Instructions [30 - 34]

Study the following information to answer these questions.

A blacksmith has five iron articles A, B, C, D and E each having a different weight. (i) Aweighs twice as much as B (ii) Bweighs four and a half times as much as C (iii) C weighs half as much as D (iv) D weighs half as much as E (v) E weighs less than A but more than C

30. **Which of the following is the lightest in weight?**

A A
B B

C C

D D

Answer: C

Explanation:
Let weight of C be c units.
From (iii), we can say that d = 2c and from (iv), we can say e = 2d = 4c
From (ii), b = 4.5c and from (i), a = 2b = 9c
Hence, the order from heaviest to lightest can be given as A, B, E, D, C

31. **E is lighter in weight than which of the other two articles?**

A A,B **B**

D,C **C**

A,C **D**

D,B

Answer: A

Explanation:
Let weight of C be c units.
From (iii), we can say that d = 2c and from (iv), we can say e = 2d = 4c
From (ii), b = 4.5c and from (i), a = 2b = 9c
Hence, the order from heaviest to lightest can be given as A, B, E, D, C

32. **E is heavier than which of the following two articles?**

A D,B

B D,C

C A,C

D A,B

Answer: B

Explanation:
Let weight of C be c units.
From (iii), we can say that d = 2c and from (iv), we can say e = 2d = 4c
From (ii), b = 4.5c and from (i), a = 2b = 9c

Hence, the order from heaviest to lightest can be given as A, B, E, D, C

33. **Which of the following articles is the heaviest in weight?**

A A

B B

C C

D D

Answer: A

Explanation:
Let the weight of C be c units.
From the given data, we can plot the weights as:
a = 9c, b = 4.5c, d = 2c, e = 4c

Hence, the descending order in weight is: A, B, E, D, C

34. **Which of the following represents the descending order of weights of the articles?**

A A, B, E, D, C **B**

B, D, E, A, C **C**

A, B, C, D, E **D**

C, D, E, B, A

Answer: A

Explanation:
Let the weight of C be c units.
From the given data, we can plot the weights as:
a = 9c, b = 4.5c, d = 2c, e = 4c
Hence, the descending order in weight is: A, B, E, D, C i.e. option A

Instructions [35 - 36]

From the set of numbers given in the four alternatives, which one is the most similar to the given set:

35. **Given Set: (6, 15, 28)**

A (50, 59, 71)

B (46, 56, 66) **C**

(60, 69, 72)

D (60, 69, 82)

Answer: D

Explanation:
The logic here is

15−6=9

28−15=13

Similarly,

69−60=9

82−69=13

∴(60, 69, 82) is similar to the given set (6, 15, 28)

Hence, the correct answer is Option D

36. **Given Set: (81, 77, 69)**

A (56, 52, 44) **B**

(64, 61, 53) **C**

(92, 88, 79) **D**

(75, 71, 60)

Answer: A

Explanation: The logic here is

81−77=4 77−69=8

Similarly,

56−52=4

52−44=8

∴(56, 52, 44) is similar to the given set

(81, 77, 69)

Hence, the correct answer is Option A

37. **There are many reasons whyindividuals want to run their own businesses. Some foresee more personal satisfaction if they are successful in launching their own business, while others are interested mainly in the prospect of larger financial rewards. Since 1980s and early 1990s tax regulation and liberal policies nave encouraged increasing number of venture capitalists and entrepreneurs to start new enterprises. Since 1990, some one-half million new ventures have been started. Not all have succeeded, of course.**
The above statement makes which of the following assumptions?

A Successin starting a new business dependsin large part on sound financial planning.

B Venture capitalists are motivated by non monetary gains.

C Social incentives motivate investors just as much as financial rewards.

D Most new business ventures succeedinitially but fail later on.

Answer: C

Explanation:
It has been given that tax regulation and liberal policies took place in the 1980s and 90s. And it has also been given that since 1990, a substantial number (half a million) new entrepreneurs have started new ventures. The implicit assumption here is that the incentives given in the form of taxes and incentives were the reason for the surge in new venture and boost to entrepreneurship.

38. **Many business offices are located in buildings having two to eight floors, if a building has more than three floors, it has a lift. If the above statements are true, then which of the following must also be true?**

A Second floors do not havelifts.

B Seventh floors have lifts.

C Only floors abovethethird floors have lifts.

D All floors may be reachedbylifts.

Answer: B

Explanation:
We are given that any building with more than 3 floors has a lift (elevator) to access the floors. Hence, naturally, seventh floor in a building will have a lift.
However, we are not given whether all the floors re accessible by lifts or the lift service is only available from the third floor. Hence, we cannot say anything conclusively about options A, B and D. Hence, only B is definitely true.

39. **A highly cohesive work groupis a prerequisite for high team performance. Sociologists point that the association between group cohesion and success is owing to the support individual team members give to one another and their acceptance of the group's goals and activities. Each of the following, if true, either provides support for or cannot weaken the sociologists' assumption aboutthe relationship between cohesive and success EXCEPT.**

A A group of Japanese researchers found that successful work teams were headed by dominant leaders.

B University researchers found that there was a significant correlation between team productivity and the extent to which the team members understood and complied with the group's objectives.

C American researchers found that successful team members tended to rate their fellow members more favourably.

D Industrial psychologists in UK found that work groups who tended to participate in after hours social activities were more productive.

Answer: A

Explanation:
The given statement implies that a team's success is due to the bonding and support team members extend to each other. A good camaraderie between the workers and healthy environment of human bonding goes a long way in ensuring success.

We have to find a statement which weakens this statement. This is done by option A which, if true, changes the needle of a team's success from tam members supporting each other to the dominance and authority established by the group leader. Option A turns the given statement on its head and hence, weakens it greatly.

40. **"Some men are certainly intelligent, others are certainly notintelligent, but of intermediate men, we should say,'intelligent'? Yes, I think, so or no, I shouldn't be inclined to call him intelligent." Which of the following most accurately reflects the intention of the writer of the above ?**

A To call men intelligent who are not strikingly so must be to use the concept with undue imprecision.

B Every empirical concept has a degree of vagueness.

C Calling someoneintelligent or not depends upon one's whim.

D There is no need to be as indecisive as the writer of the above.

Answer: C

Explanation:
The author says that apart form a few people who clearly fall in the category of definitely intelligent/definitely not intelligent, there is a definite class of people whom we can label as intelligent and not so at the same time. This makes it ambiguous and the author wonders whether one has the right to call them any of the 2 as per his inclination. This is best reflected in the option C.
Option A does not cover the author's thought correctly.

41. **The sum of the** 6^{th} **and** 15^{th} **elements of an arithmetic progression is equal to the sum o and** 12^{th} **elements of the same progression. Which element of the series should necess to zero?**

A 10^{th}

B 8^{th}

C 1^{st}

D None of these

Answer: B

Explanation:
Let the A.P. be A_1, A_2, A_3,... and so on, with first term = a and common difference = d
Also, *nth* term of an A.P. $A_n = a+(n-1)d$

Acc to ques,

=> $A_6 + A_{15} = A_7 + A_{10} + A_{12}$

=> $(a+5d)+(a+14d) = (a+6d)+(a+9d)+(a+11d)$

=> $a + 7d = 0$

Thus, $A_8 = 0$

=> Ans - (B)

42. **Mr. X's salary is increased by 20%. On the increase, the tax rate is 10% higher. The percentage increase in tax liability is**

A 20

B 22

C 23

D Indeterminate

Answer: D

Explanation:
Since, we do not the tax on the initial salary, we cannot determine the increase in tax liability.

=> Ans - (D)

43. **Rohit, Harsha and Sanjeev are three typists who, working simultaneously, can type 216 pages in four hours. In one hour, Sanjeev can type as many pages more than Harshs as Harsha can type more than Rohit. During a period of five hours, Sanjeev can type as many pages as Rohit can during seven hours How many pages does each of them type pei hour?**

A 16, 18, 22

B 14, 17, 20

C 15, 17, 22

D 15, 18, 21

Answer: D

Explanation:
Let number of pages types per hour by Rohit, Harsha and Sanjeev respectively be x, y, z

=> $4(x+y+z)=216$

=> $x+y+z=54$ ----------(i)

Also, $z-y=y-x$

=> $x+z-2y=0$----------(ii)

Subtracting equation (ii) from (i), we get : $y=18$

=> $x+z=36$ ----------(iii)

Also, $5z=7x$ ----------(iv)

Now, solving equations (iii) and (iv), we get : $x=15$ and $z=21$

∴ Pages typed per hour by Rohit, Harsha and Sanjeev respectively are : **15,18,21**

=> Ans - (D)

44. **A box of light bulbs contains 24 bulbs. A worker replaces 17 bulbs in the shipping department and 13 bulbs in the accounting department. How many boxes of bulbs did the worker use?**

A 1

B 1(4

C 1)

D 23(4

Answer: B
)

Explanation:

Total units of bulbs used by the worker = 17+13 = 30

Number of bulbs in each box = 24

∴ Number of boxes used by the worker $= \frac{30}{24} = \frac{5}{4} = 1\frac{1}{4}$

Hence, the correct answer is Option B

45. **If there are 3 different roads from Delhi to Mumbai and 4 different roads from Mumbai to Chennai, then how many roadsare there from Delhi to Chennai that go through Mumbai?**

A 9

B 1

C 2

D 16

Answer: B

Explanation:

Number of roads from Delhi to Chennai via Mumbai

$= 3 \times 4 = 12$

=> Ans - (B)

46. **What will Rs. 1000 be worth after three yearsif it earns interest at the rate of 5% compounded annually?**

A 1057

B 1257 **C** 1157 **D** 1300

Answer: C

Explanation:
Principal = Rs. 1000 and rate of interest = 5% and time period = 3 years

=> Amount when compounded annually $= P(1+\frac{5}{100})^t$

$= 1000(1+\frac{5}{100})^3$

$= 1000 \times (\frac{21}{20})^3$

$\approx Rs.\ 1157$

=> Ans - (C)

47. **A bag contains 2 red, 3 green and 2 blue balls. 2 balls are to be drawn randomly. Whatis the probability that the balls drawn contain no blue ball?**

A $\frac{5}{7}$

B $\frac{1}{7}$

C $\frac{10}{21}$

D $\frac{11}{21}$

Answer: A

Explanation:
There are 2 red, 3 green and 2 blue balls

Probability of drawing blue balls $= \frac{2}{7}$

=> Probability that the balls drawn contain no blue ball $= 1 - \frac{2}{7}$

$= \frac{5}{7}$

=> Ans - (A)

48. **If p, q, r, s are in harmonic progression and $p > s$, then**

A $\frac{1}{ps} < \frac{1}{qr}$

B $q(+)r = (p) + s$

C

D $\frac{1}{q} + \frac{1}{p} = (\frac{1}{r}) + (\frac{1}{s})$

None of these

Answer: D

49. **A worker makes a basket in $\frac{2}{3}$ of an hour. If he works for $7(\frac{1}{2})$ hours, then how many baskets will he make?**

A $10(4^{3})$

B $11(4^{1})$

C

D $12(2^{1})$

13

Answer: B

Explanation:

Baskets made in $\frac{2}{3}$ hours = 1 basket

=> Baskets made in 2 hours = 2×2^{15}

$= 4 = 11\frac{45}{4}$

=> Ans - (B)

50. **The slope of a function $y = x3 + kx$ at $x = 2$ is equal to the area under the curve $z = a^2 + a$ between points a = 0 and a = 3 Then the value of k is**

A 1.5

B 5.5

C 6.5

D Cannot be determined

Answer: A

51. **If 5 men take an hour to dig a ditch, then how long should 12 men take to dig a ditch of the same type?**

A 25 minutes **B**

30 minutes **C**

28 minutes **D**

20 minutes

Answer: A

Explanation:
Let time taken by 12 men be t minutes.

=> $5 \times 60 = 12 \times t$

=> $t = 25$ minutes

=> Ans - (A)

52. **The difference between the logarithms of sum of the squares of two positive numbers A and B and the sum of logarithms of the individual numbers is a constant C. If A = B, then C is**

A 2

B 1.3031

C log 2

D exp (2)

Answer: C

Explanation:
Framing equation for given data:

$\log (a^2 + b^2) - (\log a + \log b) = C$

Opening brackets and substituting a = b, we get
C = log 2

53. **How muchinterest will Rs- 10,000 earn in 9 months at an annual rate of 6 per cent?**

A 450

B 500

C 475
600

D

Answer: A

Explanation:

Principal = Rs. 10,000 and rate of interest = 6%

=> Interest = $\frac{10,000\times6\times9}{12\times100}$

= $50\times9=Rs.\ 450$

=> Ans - (A)

54. **There are four prime numbers written in ascending order. The product of the first three is 385 and that of the last three is 1001. The first number is**

A 5

B 7

C 11

D 17

Answer: A

Explanation:
Prime factorization of :

$385 = 5\times7\times11$

$1001 = 7\times11\times13$

Thus, the 4 prime numbers are : 5,7,11,13

=> Smallest one = **5**

=> Ans - (A)

55. **A train can travel 20%faster than a car. Both start from the point A at the same time and reach point B 75 km away from A at the same time. On the way, however, the train lost about 12.5 minutes while stopping at the stations. The speed of the car is**

A 50 kmph

B 55 kmph

C 60 kmph

D 65 kmph

Answer: C

Explanation:
Let speed of car = $10x$ km/hr

=> Speed of train = $12x$ km/hr

Time taken by both to travel 75 km = $\frac{75}{10x} = \frac{75}{12x} + \frac{12.5}{60}$

=> $75(\frac{1}{60}x)=60-\frac{12.5}{75}$

=> $x=12.5=6$

∴ Speed of car = 60 km/hr

=> Ans - (C)

56. **Pintoo dealt some cards to Minto and himself from a full pack of playing cards andlaid the rest aside. Pintoo then said to Mintoo, "If you give me a certain number of your cards I will have 4 times as many cards as you have. If I give you the same numberof cards, I will have thrice as many cards as you have." How manycards did Pintoo have?**

A 31

B 32 **C**

29 **D**

30

Answer: A

Explanation:

Let number of cards with Pintoo = x and number of cards laid aside = z

=> Number of cards with Mintoo = $(52-x-z)$

Let number of cards exchanged = k

Acc. to ques, => $(x+k)=4(52-x-z-k)$

=> $x+k=208-4x-4k-4z$

=> $5x+5k+4z=208$ ----------(i)

Similarly, $(x-k)=3(52-x-z+k)$

=> $x-k=156-3x+3k-3z$

=> $4x-4k+3z=156$ ----------(ii)

By applying 3(i)-4(ii), we get : $-x+31k=0$

=> $x=31k$

Now, we know that y is a constant greater than 0, also since there are only 52 cards, we have $k = 1$

∴ Number of cards with Pintoo = $x=31$

=> Ans - (A)

57. **An express train travelled at an average speed of 100 kmph, stopping for 3 minutes after every 75 km.A local train travelled at a speed of 50 kmph, stopping for 1 minute after every 25 km. If the trains began travelling at the same time, then how many kilometres did the local train travel in the time it took the express train to travel 600 km?**

A 307.5 km

B 900 km

C 1200 km

D 1000 km

Answer: A

Explanation:

Normal time taken by express train (without stoppage) = $\frac{600}{100}$=6 hours

Number of time it stopped = $\frac{600}{75}$=8

Thus, it stopped 7 times for a total time of = 3×7=21 minutes

Now, distance travelled by local train in 6 hours and 21 minutes

= 300 km in 6 hours and 12 minutes (12 stoppages)

Thus, in the last 9 minutes, it will travel = $\frac{60}{9}$=7.5 km

∴ Total distance travelled = **307.5 km**

=> Ans - (A)

58. **For an acute angle** θ,$\sin\theta+\cos\theta$ **takes the greater value when** θ **is**

A $^\circ$ 30

B $^\circ$ 45

C $^\circ$ 60

D $^\circ$ 90

Answer: B

Explanation:

Let $f(\theta)=sin\theta+cos\theta$

=> $f'(\theta)=cos\theta-sin\theta$

Now, max value of $f(\theta)$ will be when $f'(\theta)=0$

=> $cos\theta=sin\theta$

$\because\theta$ is acute, => $\theta=45^\circ$

=> Ans - (B)

59. **HCF of 3240, 3600 and a third number is 36 and their LCM is** $24\times35\times52\times7$ **2. The third number is**

A $24\times53\times72$

B $22\times35\times72$

C $23\times35\times72$

D $25\times52\times72$

Answer: B

Explanation:
Let the third number be x. H.C.F. = 36. Prime factorization of :

$3240 = 23\times34\times5$

$3600 = 24\times32\times52$

=> $x=22\times3n\times k$, where $n\geq2$ and k is any prime number and $k\neq5$

Also, LCM is $24\times35\times52\times72$

=> $n=5$ and $k=72$

$\therefore x=22\times35\times72$

=> Ans - (B)

60. **The cost function at production x is defined as** $C(x)=3x+2$ **and sale function at A cost x is defined as** $S(x)=(A-3x)$. **Which of the following is true?**

A Min sales = $(\frac{3}{4})^{\frac{2}{3}}A$

B Min sales = $(\frac{9}{2})^{\frac{2}{3}}A$

C Max sales = $(\frac{3}{4})^{\frac{2}{3}}A$

D Max sales = $(\frac{9}{2})^{\frac{2}{3}}A$

Answer: C

61. **If x is a positive number, then which of the following fractions has the greatest value?**

x

B $(x+1)x$

C $x(x+1)$

D $(x+2)$
$(x+3)$

Answer: B

Explanation:

Let $x=10$

(A) : $10^{10}=1$

(B) : $10^{10+1}=1.1$ **[MAX]**

(C) : $11^{10}<1$

(D) : $13^{12}<1$

=> Ans - (B)

62. **Which values of x are satisfied by the inequality $2x^2+x-3<0$?**

A $-\left(\frac{3}{2}\right)<x<1$

B $-1<x<(3)^2$

C $x>1$

D $x<^{-2}$

Answer: A

Explanation:

Expression : $2x2+x-3<0$

=> $2x2-2x+3x-3<0$

=> $(2x+3)(x-1)<0$

Now product of two numbers is negative only if one is positive and other is negative.

Case I : $(2x+3)>0 \Rightarrow x>2^{-3}$

and $(x-1)<0 \Rightarrow x<1$

$\therefore {}^{-3}2<x<1$

Case II : $(2x+3)<0 \Rightarrow x<2^{-3}$

and $(x-1)>0 \Rightarrow x>1$, which is not possible.

=> Ans - (A)

63. **If the probability that A will live 15 years is $\left(\frac{7}{8}\right)$ and that B will live 15 years is $\left(\frac{9}{10}\right)$, then what is the probability that both will live after 15 years?**

A $\frac{1}{20}$

B $\frac{63}{80}$

C $\frac{1}{5}$

D None of these

Answer: B

Explanation:
Both the events are independent so if two events are independent say A and B then probability of both happening = P(A) × P(B)

P(A will live 15 more years) = $\frac{7}{8}$

P(B will live 15 more years) = $\frac{9}{10}$

P(A will live 15 more years and B will live 15 more years) = $\frac{7}{8} \times \frac{9}{10}$

$= \frac{63}{80}$

=> Ans - (B)

64. **A shopkeeper sold a TV set for Rs. 17,940, with a discount of 8% and gained 19.6%. If no discount is allowed, then whatwill be his gain per cent?**

A 25% 26.4%

B 24.8% None

C of these

D

Answer: D

Explanation:
Selling price = Rs. 17,940

Marked price after discount of 8% = $\frac{17940}{92} \times 100 = Rs.\ 19{,}500$

Also, cost price $= \frac{17940}{119.6} \times 100 = Rs.\ 15{,}000$

If no discount is allowed, => selling price = Rs. 19,500

$\therefore$ Profit % $= \frac{19500 - 15000}{15000} \times 100$

$= \frac{4500}{150} = 30\%$

=> Ans - (D)

65. **The number of tangents that can be drawn to two non-intersecting circles is**

A 4

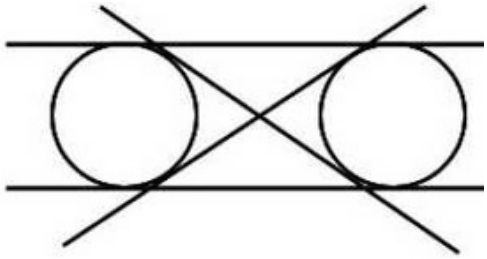
B 3

C 2

D 1

Answer: A

Explanation:
The number of tangents that can be drawn to two non-intersecting circles is **4**.



=> Ans - (A)

66. **A number is increased by 10% and then reduced by 10%. After this operation, the number**

A Does not change.

B Decreases by 1%.

C Increases by 1%.

D Increases by 0.1%.

Answer: B

Explanation:
Let number be 100

When it is increased by 10%, => new number = 110

When it is decreased by 10%, => new number = $\frac{90}{100} \times 110 = 99$

Thus, original number **decrease by 1%**.

[Method 2]

% Change = $10 + (-10) + \frac{10 \times (-10)}{100}$

= −1%

=> Ans - (B)

67. **The average of 11 numbersis 10.9. If the average of the first six numbers is 10.5 and that of the last six numbersis 11.4, then the middle number is**

A 11.5

B 11.4

C 11.3

D 11.0

Answer: A

Explanation:
Average of 11 numbers = 10.9
=> Sum of 11 numbers = 10.9×11=119.9
Similarly, sum of first six numbers = 10.5×6=63
and sum of last six numbers = 11.4×6=68.4
Thus, middle number = (63+68.4)−119.9=11.5
=> Ans - (A)

68. **A man sells an article at 5% profit. If he had bought it at 5% less and sold it for Re. 1 less, he would have gained 10%. The costprice of the article is**

A Rs. 200 **B**

Rs. 150 **C**

Rs. 250 **D**

Rs. 240

Answer: A

Explanation:
Let cost price of the article = Rs. $100x$
Selling price after 5 % profit = Rs. $105x$
Now, new cost price = Rs. $95x$
and new selling price = Rs. $(105x - 1)$
=> Profit % = $\frac{105x-1-95x}{95x} \times 100 = 10$
=> $\frac{10x-1}{95x} = \frac{1}{10}$
=> $100x-10=95x$
=> $x=\frac{10}{5}=2$
∴ Cost price = **Rs. 200**
=> Ans - (A)

69. **A starts 3 min after B for a place 4.5 km distant B, on reaching his destination, immediately returns and after walking a km meets A.if A can walk 1 km in 18 minutes, then whatis B's speed ?**

A 5 kmph **B** 4

kmph **C** 6

kmph **D** 3.5

kmph

Answer: A

Explanation:

Let B's speed be x km/hr and A's speed $= \frac{60}{10} = 18 = 3$ km/hr

Distance covered by B in 3 minutes $= \frac{x}{20}$ km

Now, time taken by A to travel 3.5 km = Time taken by B to travel 5.5 km - 3 minutes

$\Rightarrow 3.5 \times \frac{3}{10} = \frac{5.5}{x} - \frac{3}{60}$

$\Rightarrow 1.05 + 0.05 = \frac{5.5}{x}$

$\Rightarrow x = \frac{5.5}{1.1} = 5$ km/hr

=> Ans - (A)

70. **A company has 6,435 bars of soap, if the company has sold 20 per cent of its stock, then how many bars of soap did it sell?**

A 1237

B 1257 **C**

1287 **D**

1300

Answer: C

Explanation:

Number of soap bars sold $= \frac{20}{100} \times 6435$

$= 1287$

=> Ans - (C)

71. **A dairyman pays Rs. 6.4 per liter of milk. He adds water and sells the mixture at Rs. 8 per liter, thereby making 37.5% profit. The proportion of water to milk received by the customers is**

A 1:15

B 1:10

C 1:20

D 1:12

Answer: B

Explanation:

Let quantity of milk purchased be x litres and water added be y litres

Thus, cost price = Rs. $6.4x$

Selling price = Rs. $8(x+y)$

Also, profit % = 37.5 % = $\frac{3}{8}$

=> $\frac{8(x+y)-6.4x}{6.4x} = \frac{3}{8}$

=> $1.6x+8y=2.4x$

=> $8y=0.8x$

=> $\frac{y}{x}=\frac{1}{10}$

=> Ans - (B)

72. **Wheels of diameters 7 cm and 14 cm start rolling simultaneously from X and Y, which are 1980 cm apart, towards each other in opposit directions. Both of them make same number of revolutions per second. If both of them meet after 10 seconds, the speed of the smaller wheel is**

A 22 cm/sec. **B** 44 cm/sec. **C** 66 cm/sec. **D** 132 cm/sec.

Answer: C

Explanation:

Distance covered by big wheel in 1 revolution = $2\pi r$

= $2\times\frac{22}{7}\times7=44$ cm

and by small wheel = 22 cm

Since, distance $\propto$ speed

Let speed of small wheel = x cm/s, => Speed of big wheel = $2x$ cm/s

Also, relative speed of both wheels = $\frac{1980}{10}=198$ cm

=> $x+2x=198$

=> $x=\frac{198}{3}=66$ cm/s

=> Ans - (C)

73. **What is the eighth term of the sequence 1, 4, 9, 16, 25, ...?**

A 8

B 64

C 128

D 200

Answer: B

Explanation:
The given sequence is square of natural numbers, i.e (1)2,(2)2,(3)2,(4)2 and so on.

Thus, eighth term = (8)2=64

=> Ans - (B)

74. **A bicycle originally costs Rs 100 and was discounted 10%. After three months it was sold after being discounted 15%. How much was the bicycle sold for?**

A 55.5

B 95.25

C 76.5

D None of these

Answer: C

Explanation:
Purchase price of cycle $= 100 \times \frac{90}{100} = Rs.90$

After another discount of 15%, selling price $= \frac{85}{100} \times 90$

= Rs. 76.5

=> Ans - (C)

75. $(\frac{1}{2})\log_{10}25 - 2\log_{10}3 + \log_{10}18$ **equals**

A 18

B $\frac{1}{\log 10 3}$

C None of these

D

Answer: B

Explanation:

Expression[1]: (2)log1025−2log103+log1018

= (21)log10(5)2−2log103+log10(32×2)

Using, log (*a*×*b*)=log*a*+log*b* and log*ab*=*b*log*a*

= log105−2log103+2log103+log102

= log10(5×2)=log1010=1

=> Ans - (B)

76. **A bag contains Rs. 216 in the form of one rupee, 50 paise and 25 paise coins in the ratio of** 2:3:4**. The number of 50 paise coins is**

A 96

B 144

C 114

D 141

Answer: B

Explanation:

Let number of one rupee, 50 paise and 25 paise coins be 2*x*,3*x* and 4*x* respectively.

Total amount = (1×2*x*)+(0.5×3*x*)+(0.25×4*x*)=216

=> 2*x*+1.5*x*+*x*=4.5*x*=216

=> *x*=4.5216=48

∴ Number of 50 paise coins = 3×48=144

=> Ans - (B)

77. **The length of the longest rod that can be placed in a room which is 12 m long 9 m broad and 8 m high is**

A 27 m

B 19 m

C 17 m

D 13 m

Answer: C

Explanation:

Length of longest rod will be placed as a diagonal of length = $\sqrt{l^2 + b^2 + h^2}$

= $\sqrt{(12)2 + (9)2 + (8)2}$

= $\sqrt{144+81+64=}$ $\sqrt{289}$

= 17 m

=> Ans - (C)

78. **Two trains of equal length are running on parallel lines in the same direction at 46 km and 36 km per hr. The faster train passes the slower train in 36 sec. The length of eachtrain is**

A 50 m.

B 80 m. **C**

72 m. **D**

82 m.

Answer: A

Explanation:

Let length of each train = x m

Relative speed = $(46-36)\times\frac{5}{18}=\frac{50}{18}$ m/s

$\Rightarrow \frac{x+x}{36}=\frac{50}{18}$

$\Rightarrow \frac{2x}{36}=\frac{50}{18}$

$\Rightarrow x=50$ m

=> Ans - (A)

79. **The remainder when 784is divided by 342 is**

A 0

B 100

C 49

D 341

Answer: B

Explanation:

342*2 = 684

784 - 684 = 100

Hence, remainder is 100.

80. **In a 800 m race around a stadium having the circumference of 200 m, the top runner meets the last runner on the 5th minute of the race. If the top runner runs at twice the speed of the last runner, what is the time taken by the top runner to finish the race?**

A 20 min

B 15 min

C 10 min

D 5 min

Answer: C

Explanation:
Let A be the top runner and B be the last runner

Both A and B starts running at same time.

After 5 mins A and B meet and A completes 400m and B completes 200m (Ratio of speed is 2:1)

After another 5 mins A completes 800m and B completes 400m. Thus A finishes the race

=> Time taken by A = 5+5=10mins

=> Ans - (C)

Instructions [81 - 84]

These questions are based on the following table. The table shows the number of emergencies attended by 6 fire brigade substations during May - October 2002.

Sub Section	May	June	July	Aug	Sep	Oct
A	12	15	17	21	13	17
B	18	21	15	18	18	19
C	10	11	19	21	23	18
D	17	17	19	12	18	10
E	12	15	18	10	21	11
F	14	15	12	13	18	19

81. **Number of emergencies attended by the 6 substations was the samein the months of**

A May & June

B June & July

C August & September

D June & October

Answer: D

Explanation:
Number of emergencies attended by the 6 substations in :

May = 12+18+10+17+12+14 = 83

June = 15+21+11+17+15+15 = 94

July = 17+15+19+19+18+12 = 100

Aug = 21+18+21+12+10+13 = 95

Sep = 13+18+23+18+21+18 = 111

Oct = 17+19+18+10+11+19 = 94

Thus, emergencies attended were same in **June and October.**

=> Ans - (D)

82. **Which of the following substations showed a greater increase in the number of emergencies attended in August as compared to July?**

A A

B E

C D

D C

Answer: A

Explanation:
Required difference in the number of emergencies attended in August as compared to July

(A) : A = 21-17 = 4 **[MAX]**

(B) : E = 10-18 = -8

(C) : D = 12-19 = -7

(D) : C = 21-19 = 2

=> Ans - (A)

83. **Which substation attended to the maximum number of complaints in the given period?**

A A

B B

C C
F

D

Answer: B

Explanation:
Number of complaints attended by :

(A) : A = 12+15+17+21+13+17 = 95

(B) : B = 18+21+15+18+18+19 = 109 **[MAX]**

(C) : C = 10+11+19+21+23+18 = 102

(D) : F = 14+15+12+13+18+19 = 91

=> Ans - (B)

84. **Which two months aggregated over 36%of the total number of emergencies in the six-month period?**

A May and June

B July and October

C August and September

D July and September

Answer: D

Explanation:
This problem requires a bit of manual additions and data handling.
The total number of emergencies are = 83+94+100+95+111+94 = 577
Now, the question asks which of the given months account for more than 36% of all 577 emergencies i.e. for more than 208 emergencies together.
There are only 2 months which add up to more than 200: July and September.

Instructions [85 - 88]

Answer these questions based on the data given in the following table. The table shows the installment amounts for monthly repayments (in Rupees) on housing society loans for different periods.

	YEARS			
Loan	**10**	**15**	**20**	**25**
1,00,000	1250	1050	900	850
2,000,000	2500	2050	1800	1600
10,00,000	12950	10300	9000	8450
15,00,000	19400	15450	13500	12650
20,00,000	25900	20600	18000	16800

85. **How much more money would be paid on a loan of Rs. 20,00,000 taken out over 20 years compared to the same loan taken overa period of 15 years?**

A Rs. 3,00,000 **B**

Rs. 4,25,000 **C**

Rs. 5,50,000 **D**

Rs. 6,12,000

Answer: D

Explanation:
Amount to be repaid while taking a loan of Rs. 20,00,000 with o repayment period of 15 years

$= 20600 \times 15 \times 12 = Rs.\ 37,08,000$

Amount to be repaid while taking a loan of Rs. 20,00,000 with o repayment period of 20 years

$= 18000 \times 20 \times 12 = Rs.\ 43,20,000$

$\therefore$ Cumulative financial impact = $Rs.\ (43,20,000 - 37,08,000) = Rs.\ 6,12,000$

=> Ans - (D)

86. **What is the total amount repaid over 25 years on a loan of Rs. 15,00,000?**

A Rs. 22,50,000 **B**

Rs. 37,95,000 **C**

Rs. 45,30,000 **D**

Rs. 55,70,000

Answer: B

Explanation:
Amount to be repaid while taking a loan of Rs. 15,00,000 with a repayment period of 25 years

$= 12650 \times 25 \times 12 = Rs.\ 37,95,000$

=> Ans - (B)

87. **The monthly repayment on o loan of Rs. 15,00,000 over 20 years is reduced to Rs. 12500. By how much would this reduce the total amount on the loan over the full period?**

A Rs. 1,30,000 **B**

Rs. 2,40,000 **C**

Rs. 2,24,000 **D**

Rs. 1,26,000

Answer: B

Explanation:
Amount to be repaid while taking a loan of Rs. 15,00,000 with a repayment period of 20 years when EMI is Rs. 13,500

$= 13500 \times 20 \times 12 = Rs.\ 32,40,000$

Amount to be repaid while taking a loan of Rs. 15,00,000 with a repayment period of 20 years when EMI is Rs. 12,500

$= 12500 \times 20 \times 12 = Rs.\ 30,00,000$

$\therefore$ Cumulative financial impact = $Rs.\ (32,40,000 - 30,00,000) = Rs.\ 2,40,000$

=> Ans - (B)

[Method 2]

Required difference = $(13500 - 12500) \times 20 \times 12 = Rs.\ 2,40,000$

=> Ans - (B)

88. **Instead of taking a loan of Rs. 10,00,000 with o repayment period of 15 years, the society proposesto take a loan of Rs. 15,00,000 to be paid back in 10 years to provide for a generator set. What is the cumulative financial impact ?**

A Rs. 4,54,000 Rs.

B 4,74,000 Rs.

C 5,67,000 Cannot be

D assessed

Answer: B

Explanation:

Amount to be repaid while taking a loan of Rs. 10,00,000 with o repayment period of 15 years

$= 10300 \times 15 \times 12 = Rs.\ 18,54,000$

Amount to be repaid while taking a loan of Rs. 15,00,000 with o repayment period of 10 years

$= 19400 \times 10 \times 12 = Rs.\ 23,28,000$

$\therefore$ Cumulative financial impact = $Rs.\ (23,28,000 - 18,54,000) = Rs.\ 4,74,000$

=> Ans - (B)

Instructions [89 - 92]

Answer these questions based on the data given in the table below. The table shows the trends in the relative value in the market of select groups of commodities (1999 - 2003):

	YEARS				
Commodities	**1999**	**2000**	**2001**	**2002**	**2003**
Milk	95	92	86	72	76
Cereals	75	68	62	66	60
Fats and Oils	76	70	68	62	58
Gas	82	76	100	98	96
Vegetables	80	62	64	84	88
Fruits	79	74	72	66	73

89. **What is the average difference in the relative value of the six commodities in 2003 compared to 1999?**

A +8

B -5

C -6

D +4

Answer: C

Explanation:
Difference in the relative value of the six commodities in 2003 compared to 1999

$= (76-95)+(60-75)+(58-76)+(96-82)+(88-80)+(73-79)$

$= (-19)+(-15)+(-18)+(14)+(8)+(-6) = -36$

=> Required average = $\bar{6}^{36} = -6$
=> Ans - (C)

90. **Which value showed the greatest amount of change in 1999 compared to 2003?**

A Milk

B Gas

C Fats & Oils

D Vegetables

Answer: C

Explanation:
Amount of change in 1999 compared to 2003

(A) : $\frac{95-76}{76} \times 100 = 25\%$

(B) : $\frac{96-82}{96} \times 100 \approx 14.5\%$

(C) : $\frac{76-58}{58} \times 100 \approx 30\%$ **[MAX]**

(D) : $\frac{88-80}{88} \times 100 \approx 9.09\%$

=> Ans - (C)

91. **Which commodity showedthe least variatron in value over the period 1999-2003?**

A Cereals

B Gas

C Vegetables

D Fruits

Answer: D

Explanation:
The commodity which showed the least variation in value over the period 1999-2003 is the one which has the least difference in value between 1999 and 2003, which clearly is fruits : $\frac{79-73}{79} \times 100 \approx 7.5\%$
=> Ans - (D)

92. **For which commodities is there a clearly discernible trend of decreasing relative value between 1999 - 2003?**

A Cereals and Gas

B Milk, Cereals, Fats & Oils

C Milk, Gas, Fats & Oils

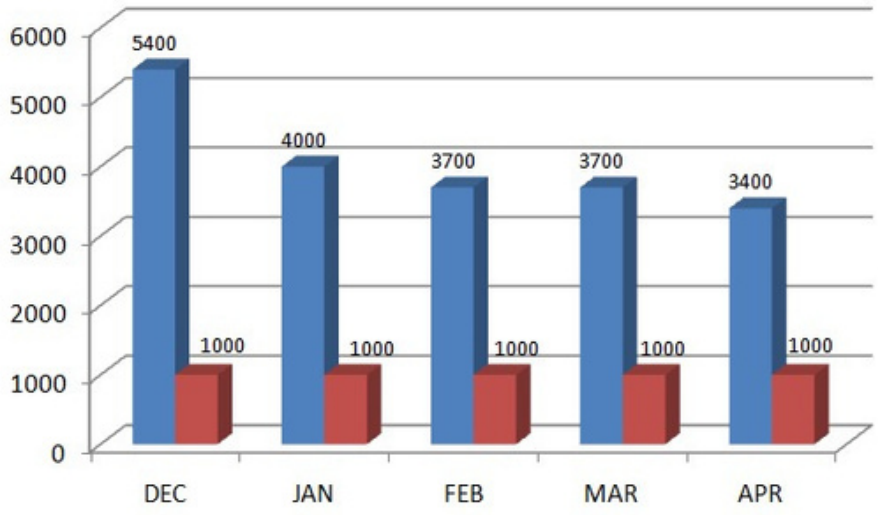
D Vegetables, Fats & Oils

Answer: B

Explanation:
From the given data values, we can see that Gas and vegetables show a clearly increasing trend from 1999 to 2003 irrespective of the fluctuations in between.
Fruits show a relatively flat trend in prices.
A very clear fall can be seen in cereals, milk, fats and oils as the values that they start with in 1999 are substantially larger than their values in 2003.

Instructions [93 - 96]

Answer these questions based on the graph given below. The graph shows the net receipts (shaded) and mortgage advances (unshaded) from December 2000 to April 2001 for a building society in Rs. lakh.



93. **In which two months were the same amountof building society mortgage advances made?**

A December & January

B January & February

C February & March

D March & April

Answer: D

94. **In which month was there the greatest excess of building society net receipts over mortgage advances?**

A December

B January

C February

D March

Answer: A

Explanation:
The ratio of net receipts over mortgage advances will be greatest in the month which has the highest net receipts (since mortgage advances are same for all), which is in the month of **December.**

=> Ans - (A)

95. **What was the ratio of the society mortgage advancesto net receipts in April 2001?**

A 1 : 8

B 1 : 6

C 1 : 3

D 1 : 4

Answer: C

Explanation:
Net receipts in April 2001 = 3400

Mortgage advances in April 2001 = 1000

=> Required ratio = $\frac{1000}{3400}$

$\approx 1 : 3$

=> Ans - (C)

96. **Assume that, by the end of May 2001, the building society net receipts and mortgage advances had fallen by 50% and 25% respectively, compared to the figures for April 2001. What would the building society turnover (obtained by adding net receipts to mortgage advances) have been for May 2001 in Rs. lakh?**

A 1,800

B 2,200

C 2,400

D 2,100

Answer: C

Explanation:

Net receipts (in Rs. lakhs) for May 2001 = $\frac{50}{100} \times 3400 = 1700$

Advances (in Rs. lakhs) for May 2001 = $\frac{75}{100} \times 1000 = 750$

Total turnover (in Rs. lakhs) = $1700 + 750 = 2450 \approx 2400$

=> Ans - (C)

Instructions [97 - 100]

Answer these questions based on the table given below. The table shows number of new female and male employees engaged by 5 employers from 1999 to 2003.

Empolyer	Gender of Employees	1999	2000	2001	2002	2003	Total
A	Female	4	4	5	10	12	35
	Male	5	6	8	12	12	43
B	Female	10	11	9	13	15	58
	Male	12	12	13	23	14	74
C	Female	67	66	74	57	89	353
	Male	13	11	10	6	9	49
D	Female	4	6	8	2	9	29
	Male	3	5	8	6	4	26
E	Female	4	5	4	3	2	18
	Male	4	5	2	6	3	20
Total		126	131	141	138	169	705

97. **What was the total number of new employees(female and male)in all the companies in 1999 & 2000?**

A 234

B 257 **C**

235 **D**

256

Answer: B

Explanation:

Total number of new employees(female and male)in all the companies in 1999 & 2000

= 126 + 131 = **257**

=> Ans - (B)

98. **What is the average number of new female employees per companyin 2001 ?**

A 25

B 30 **C**

20 **D**

18

Answer: C

Explanation:
Total number of new female employees per company in 2001

= 5+9+74+8+4 = 100

=> Required average $= \frac{100}{20} = 5$

=> Ans - (C)

99. **Of the total number of the new male employees in all the five companies in 2002, what percentage did companies B, C and D employ collectively ?**

A 66%

B 62% **C**

65% **D**

67%

Answer: A

Explanation:
Total male employees in 2002 = 12+23+6+6+6 = 53

Male employees by B, C and D in 2002 = 23+6+6 = 35

=> Required % = $\frac{35}{53} \times 100$

$\approx \frac{2}{3} \times 100 = 66\%$

=> Ans - (A)

100. **What was the ratio of the new female employees to new male employees in Company in 2000?**

A 1 :

B 6

C 6 :

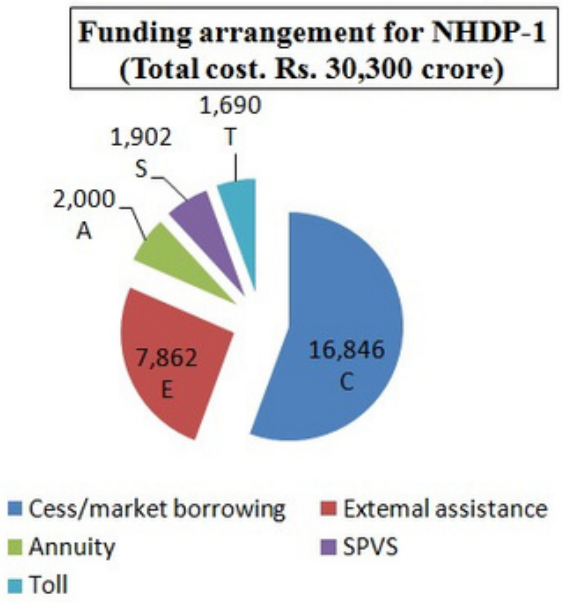
D 1

Answer: C
2 :

3

Instructions [101 - 103]

The pie chart given below shows the funding arrangements for National Highways Development Projects: Phase 1. Study the chart carefully to answer these questions.



101. **Near about 25% of the funding arrangement is through**

A Cess/Market borrowing

B External assistance

C Annuity

D SPVS

Answer: B

Explanation:

25% of funding $\frac{25}{100} \times 30{,}300$

= Rs. 7575 crore which is nearly equal to amount of **External Assistance.**

=> Ans - (B)

102. **The angle of the segment formed at the centre of the pie chart, representing Cess/Market borrowing is approximately**

A 90°

B 10 °

C 0 °

D 18 °

Answer: D

0

Explanation:

20

0

Angle of the segment formed at the centre of the pie chart, representing Cess/Market borrowing

$= \frac{30300}{16846} \times 360^\circ$

$= 200.15 \approx 200\%$

=> Ans - (D)

103. **If the toll is to be collected through an outsourced agency by allowing a maximum of 10% commission, then how much amount should be permitted to be collected by the outsourced agency, so that the project is supported with Rs. 1690 Crore?**

A Rs. 1690 Crore

B Rs. 1859 Crore

C Rs. 16900 Crore

D Inadequate data

Answer: B

Explanation:

Commission charged by the outsourced agency = 10% and cost of project = Rs. 1690 crore

=> Amount permitted to be collected = $1690 + \frac{(100 \times 1690)}{10}$

$= 1690 + 169 = 1859$ crore

=> Ans - (B)

Instructions [104 - 106]

The table below gives the details of foreign tourist arrivals and foreign exchange earnings during the period 1995-1996 to 2001-2002. Answer these questions based on the data given in the following table.

FOREIGN TOURIST ARRIVALS AND FOREIGN EXCHANGE EARNINGS

Year	Foreign tourist arrivals(in lakh)	Percent change	Estimated foreign exchange(in millions US $)	Percent change
1995-96	2190	-	2713	-
1996-97	2334	6.6	2878	6.1
1997-98	2371	1.6	2914	1.3
1998-99	2397	1.1	2993	27
1999-2000	2505	4.5	3036	1.4
2000-01	2699	7.7	3168	4.3
2001-02	2423	-10.2	2910	-8.1

104. **The maximum percentage increasein foreign tourist arrivals during the given period has been in**

A 2001-2002

B 2000-2001

C 1999-2000

D 1996-1997

Answer: B

Explanation:
Percentage increase in foreign tourist arrivals during the period :

2001-2002 = Number of tourists decreased (no need to calculate)

2000-2001 = $\frac{2699-2505}{2505} \times 100 \approx 8\%$ **[MAX]**

1998-2000 = $\frac{2505-2397}{2397} \times 100 \approx 4\%$

1996-1997 = $\frac{2334-2190}{2190} \times 100 = 6.5\%$

=> Ans - (B)

105. **The estimated foreign exchange earnings have beensteadily increasing from the period**

A 1995-1996 to 2001-2002

B 1995-1996 to 2000-2001

C 1999-2000 to 2001-2002

D None of these

Answer: B

Explanation:
The estimated foreign exchange earnings decreased from the period 2000-01 to 2001-02, thus first and third options are eliminated, hence the estimated foreign exchange earnings have been steadily increasing from the period **1995-96 to 2000-01**.

=> Ans - (B)

106. **"As a result of September 11, 2001 incidents in the United States, the tourist arrivals dropped by about 10 percent, when compared with the previous year."**

A The data givenin the table supports the above statement.

B The above statement is not supported by the data given in the table.

C Additional information is required to arrive at the above conclusion.

D None of these.

Answer: A

Explanation:
Number of tourists who arrived in 2000-01 were 2699 lakhs and those who arrived in 2001-02 were 2423

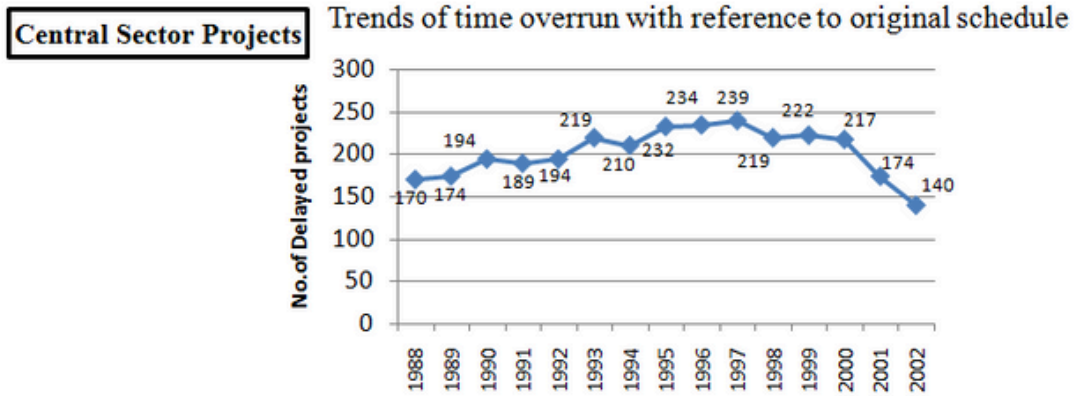
lakhs, and thus the arrival dropped by 10.2 percent.

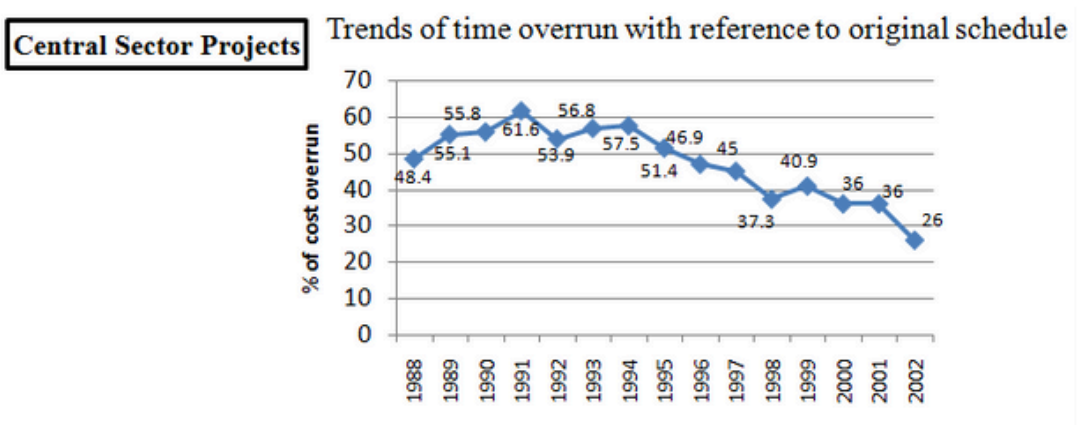
Thus, the data given in the table supports the above statement.

=> Ans - (A)

Instructions [107 - 110]

Time and cost over-runs have been a major problem affecting the implementation of Central Sector Projects. The trend of time over-runs and cost over-runs are given in the graphs below. Answer these questions based on these graphs.





107. **The highest numberof delayed projects during the given period wasin the year**

A 1991

B 1994 **C**

1997 **D**

1996

Answer: C

Explanation:

Number of delayed projects during the years :

(A) : 1991 = 189

(B) : 1994 = 210

(C) : 1997 = 239 **[MAX]**

(D) : 1996 = 234

=> Ans - (C)

108. **The highest incidents of cost over-run during the given period has been in the year**

A 1991

B 1994
1997

C Inadequate data

D

Answer: A

Explanation:
Cost over-run during the year

1991 = 61.6% **[MAX]**

1994 = 57.5%

1997 = 45%

=> Ans - (A)

109. **The number of delayed projects have been the samein the years**

A 1990 and 1992

B 1989 and 2001

C Both 1 & 2 above

D None of these

Answer: C

Explanation: Number of delayed projects in the years
:

(A) : 1990 and 1992 are 194 each

(B) : 1989 and 2001 are 174 each

Thus, projects delayed are same in both set of years.

=> Ans - (C)

110. **The percentage cost over-runs have been the samein the years 2000 and 2001. It implies that**

A The cost over-runs have been the same.

B The cost over-run in 2000 has been morethan the cost over-run in 2001.

C The cost over-run in 2000 has been less than the cost over-run is 2001.

D None of these.

Answer: A

Explanation:
The percentage cost over-runs have been the same in the years 2000 and 2001, i.e. 36%. It simply implies that the cost over-runs have been the same for both years.

=> Ans - (A)

Instructions [111 - 115]

Each question below has two statements, I and II. Mark your answer as:

111. **For an equation** $ax2+bx+c=0$**, its roots are**

I. Real and different if $b2>4ac$.

II. Imaginary and equal if $b2<4ac$.

A If statement I is True, but not the other one.

B If statement II is True, but not the other one.

C If both the statements are True.

D If neither of the statements is True.

Answer: A

Explanation:
For an equation $ax2+bx+c=0$,

the roots are : $\frac{-b\pm\sqrt{b2-4ac}}{2a}$

Now, if $b2>4ac$, roots are real and different.

If $b2=4ac$, roots are equal.

If $b2<4ac$, roots are imaginary.

Thus, only first statement is true.

=> Ans - (A)

112. **For on equation** $ax2+bx2+cx+d=0$, **if its roots are** $\alpha,\beta \text{ and } \gamma$ **then**

I. $\alpha+\beta+\gamma=\frac{c}{a}$

II. $\alpha\beta\gamma=d$

A If statement I is True, but not the other one.

B If statement II is True, but not the other one.

C If both the statements are True.

D If neither of the statements is True.

Answer: D

Explanation:

$ax^3+bx^2+cx+d=0$, if its roots are $\alpha, \beta and \gamma$ then

$\alpha + \beta + \gamma = \frac{-b}{a}$

$(\alpha\beta) + (\beta\gamma) + (\gamma\alpha) = \frac{c}{a}$

$\alpha\beta\gamma = \frac{-d}{a}$

Thus, neither of the statements is true.

=> Ans - (D)

113. **For a differential expression**

I. $\frac{d}{dx}(\sin^2(3x))=2\cos(3x)$

II. $\frac{d}{dx}(a^u)=a^u(\log a)\frac{du}{dx}$

A If statement I is True, but not the other one.

B If statement II is True, but not the other one.

C If both the statements are True.

D If neither of the statements is True.

Answer: B

Explanation:

I. $\frac{d}{dx}(\sin^2(3x))=2\sin(3x)\times 3=6\sin(3x)$

Hence, first statement is not true.

II. $\frac{d}{dx}(a^u)=a^u(\log a)\frac{du}{dx}$

Hence, second statement is true.

=> Ans - (B)

114. **If** $y=2x$**, then**

I. $\sin y=\frac{2\tan x}{1+\tan^2 x}$

II. $\cos y=\frac{2\tan x}{1-\tan^2 x}$

A If statement I is True, but not the other one.

B If statement II is True, but not the other one.

C If both the statements are True.

D If neither of the statements is True.

Answer: A

Explanation:

$sin(2\theta) = \frac{2tan\theta}{1+tan^2\theta}$

and $cos(2\theta) = \frac{1-tan2\theta}{1+tan2\theta}$

Thus, if $y = 2x$, then only first statement is true.

=> Ans - (A)

115. **IF** $z = x + iy$**, where** $i=(-1)$**, then**

I. $z = 0, \quad when x = 0, y \neq 20$

II. $If a + bi = c + di, \; then \; a=c, b=d$

A If statement I is True, but not the other one.

B If statement II is True, but not the other one.

C If both the statements are True.

D If neither of the statements is True.

Answer: B

Explanation:

It is given that $z=x+iy$, where $i=(-1)$

If $x=0$, then $z=iy$

Hence, first statement is not true.

II : $If a+bi=c+di, then a=c, b=d$

If an equation contains both real and imaginary numbers, then the real numbers are equal, and the coefficient of imaginary numbers are also equal.

Hence, second statement is true.

=> Ans - (B)

Instructions [116 - 120]

In each of these questions, two statements I and II follow a question. Mark your answer as:

116. **There are three sets** A, B **and** C**. Find** $A \cap (B \cap C)$

I. $A \cup B$ **and** $A \cup C$ **are known.**

II. $A \cap B$ **and** $A \cap C$ **are known**

A If the question can be answered by using any one statement alone, but not by using other statement alone.

B If the question can be answeredby using either of the statements alone.

C If the question can be answered by using both the statements together, but it cannot be answered by using either of the statements alone.

D If the question cannot be answered even by using both the statements together.

Answer: A

Explanation:

$A \cap (B \cap C) = (A \cap B) \cup (A \cap C)$

Thus, we need to know the value of both $(A \cap B)$ and $(A \cap C)$ to find the solution, which is given
statement II.

Thus, the question can be answered by using one statement alone, but not by using other statement alone.

=> Ans - (A)

117. **A moving train moves Y meters in t seconds. Find its acceleration.**

I. $Y = t3 - 4t2 + 16t - 2$

II. Velocity at that moment was 20 m/sec.

A If the question can be answered by using any one statement alone, but not by using other statement alone.

B If the question can be answeredby using either of the statements alone.

C If the question can be answered by using both the statements together, but it cannot be answered by using either of the statements alone.

D If the question cannot be answered even by using both the statements together.

Answer: C

Explanation:

We have been given an expression of displacement in terms of time.

Thus, differentiating this equation with respect to time once will give us an expression for velocity, and differentiating once again with respect to time will give us an expression for acceleration.

Hence,

$V = 3t2 - 8t + 16$ ..... (A) and

$A = 6t - 8$ ..... (B)

While we have obtained the expressions for velocity and acceleration, we cannot determine their absolute values at a particular time simply from the given statement 1. However, if we take into account statement 2, we have:

$20 = 3t2 - 8t + 16$ which when solved gives t = 4+2(sqrt 7)

When this value of t is put in (B), we get value of acceleration and hence, the answer can be found by using both the statements together but not by using either of them alone.

118. **Find the sum or a Geometric series 1, 3, 9, 27, 81 ..... for N terms.**

I. *Nth* **term is 729.**

II. Next term after the *Nth* **term is thrice of it.**

A If the question can be answered by using any one statement alone, but not by using other statement alone.

B If the question can be answeredby using either of the statements alone.

C If the question can be answered by using both the statements together, but it cannot be answered by using either of the statements alone.

D If the question cannot be answered even by using both the statements together.

Answer: A

Explanation:

Sum of '*n*' terms of G.P $\frac{a(r^n-1)}{r-1}$

Now, using the first statement, if we know the *nth* term, then we can find the value of *n* and h of *n* terms.

Now, the second statement states that the next term after the *Nth* term is thrice of it, which o that the common ratio *r*=3, and thus we cannot find the sum using this statement.

Hence, the question can be answered using only one statement alone.

=> Ans - (A)

119. **Find** $25C10$**.**

I. $24C14=a$

II. $24C9=b$

A If the question can be answered by using any one statement alone, but not by using other statement alone.

B If the question can be answeredby using either of the statements alone.

C If the question can be answered by using both the statements together, but it cannot be answered by using either of the statements alone.

D If the question cannot be answered even by using both the statements together.

Answer: B

120. **Meena wants to Find** $\log_{70}96$.

I. She knows the value of $\log_{96}70$

II. She knows the value of $\log_{10}70$

A If the question can be answered by using any one statement alone, but not by using other statement alone.

B If the question can be answeredby using either of the statements alone.

C If the question can be answered by using both the statements together, but it cannot be answered by using either of the statements alone.

D If the question cannot be answered even by using both the statements together.

Answer: A

Explanation:

Using statement I, we know that $\log_{70}96=k$ (say)

Now, $\log_{96}70=\frac{1}{\log_{70}96}=\frac{1}{k}$

Thus, I statement is sufficient alone.

But, we cannot get the solution using second statement alone.

Thus, the question can be answered by using only one statement alone, but not by using another statement alone.

=> Ans - (A)

Instructions [121 - 124]

Given below is an analysis of the employment scenario in the country. Study it critically to answer these questions.

Passage I:

In view of the centrality of the employment objective in the overall process of socio - economic development as also to ensure availability of work opportunities in sufficient numbers, Special/ Group On Targeting Ten Million Employment Opportunities Per year Over The Tenth Plan Period was constituted by the Planning Commission under the Chairmanship of Dr. S.P. Gupta, Member, Planning Commission. Considering the need for generating employment opportunities which are gainful, the Special Group has recommended the use of Current Daily Status for measuring employment, as this measure of employment is net of the varying degrees of underemployment experienced by those who are otherwise classified employed on usual status
basis. The group has noted the decline in the rate of growth of population, labour and work force, but an increase in the unemployment rate during 1993-94 and 1999-2000, although the overall growth performance of the economy has been better than the previous decade. In view of the declining employment elasticity of growth, observed during the period 1994-2000, the Group has recommended that over and above the employment generated in the process of present structure of growth, there is a need to

promote certain identified labour intensive activities. These sectors are agriculture and allied activities, small and medium industries, information technology, construction, tourism, financial sector, education and health, etc. With proper policy initiatives taken in these labour intensive sectors, an additional 20 million jobs will be created during the Tenth Plan. The report also identified ministry wise programmes/targets for achieving the ten million employment opportunities per year.

The Special Group recommended policies and programmes which would enable the skill levels of the labour force to match those required for the new jobs to be created during the Tenth Plan. The recommendations of the Special Group have been suitably incorporated in the employment strategy for the Tenth Five Year Plan by the Planning Commission.
Organised sector employment as on March 31, 2001 was 27.8 million out of which public sector employment stood at 19.1 million and private sector 8.7 million. The public sector accounted for about 69 percent of the total employment in the organised sector in 2001. There was a marginal decrease of 0.6 percent in employment in the organised sector in 2001 as compared to the previous year. While employments in the public sector declined by 0.9 percent in 2001 over 2000, employment in the private sector increased by 0.1 percent. Only a small percentage (8 to 9 percent) of the total workforce of the country is employed in the organised sector. While employment growth in the private organised sector significantly improved in the 1990s, the growth of employment in the public sector was negligible. Since the public sector accounts for more than two thirds of the total organised sector employment, there was slow down of the overall growth in the organised sector employment.

121. **Which one of the following is incorrect as per the findings of the special group constituted by the Planning Commission?**

A Decline in the rate of growth of population.

B Increase in the unemploymentrate during the last decade.

C Improved overall growth performance of the economy.

D Increasein the rate of growth of labour and workforce.

Answer: D

122. **Which is/are the labour intensive sectors out of the following identified for promotion by the special group?**

A Agriculture

B Information technology

C Construction

D All of the above

Answer: D

123. **Whatis the forecaster numberof jobs that will be generated during the 10" plan with proper policy initiatives?**

A 10 million

B 30 million

C 30 million

D 40 million

Answer: B

124. **Public Sector accounts for more than ..... of the total organised sector employment and only a small percentage ..... of the total workforce of the country is working in the organised sector.**

A One-third; Seven to Eight

B Two-third; Eight to Nine

C One-fourth; Six to Seven

D One-Fifth; Nine to Five

Answer: B

Instructions [125 - 129]

Read the following passage to answer these questions.

Passage II:

We are the failed generation—we who are now in our 40s and 50s. We do not have to look far to realise that our generation has failed. The India we inherited was wonderful, but the one that we have bequeathed our children is degraded in every way. We are the citizens of transition, with personal memories of our childhood when we lived in a good, simple world where laws and morals had their place. And now we have first hand experience of an India stifled by corruption and injustice, with breakdowns on every front. There is no point getting defensive about our failure. There is no point denying it either. Perhaps time has come for us to face up to reality and try and understand why we Failed. We were good and talented and grew up in a relatively safe and protected environment Then why and where did we go wrong? Perhaps we must first rewind a bit. Our grandparents were the generation of freedom fighters. They were brave and committed men and women fired with a vision of a free India. They made sacrifices, donated money and property, their youth and even lived to achieve their goal. They were incredibly disciplined. And then came our parents generation. They wanted to build a new India, a modern India where all citizens were equal. They were incredibly thrifty. They worked hard and saved money and believed the best they could give their children was a good education. And then came my generation, born in safety and security. We benefitted from a good education. Our nationalistic goals had whittled down—we only wanted to make a difference. But we did not really manage to because we were incredibly ambitious. We wanted to create a separate identity, push the frontiers of our personal capabilities and professional parameters to a new high. We took pride in being unlike the rest. Highly individualistic, we became the generation that abrogated civic responsibility. That hurt the social fabric—we wanted the best for our family, but community and country could look after itself. Sure, we inherited problems from our parents' generation. But we did not do anything to set it right. So they got worse and around us India started to crumble. We saw it, were conscious enough to protest, but

not concerned enough to step in and stem the rot. We were unconcerned because we were caught up in our own personal pursuits. We love to make a virtue of tolerance and indifference, as also permissiveness.It is indifference, when we do not care deeply enough to do something about our problems.It is not tolerance but permissiveness when we are too lazy to intervene. As we strove to prove our worth in professional pursuits, role happily left nation building to politicians and bureaucrats. We abdicated our responsibility, our personal role in shaping India's destiny. Politics and civic action soon became too dirty for us to soil our hands, our name, our reputations. Some of us who belatedly want to do something about it, now discover that the system is too atrophied, set in its ways, to let us enter. So we stand outside wringing our hands. Perhaps secretly glad that we cannot enter this murky world. After all, we have accumulated too much to lose and in any case why bother. The system is too far gone and we would be fools to sacrifice the comforts of our cocooned world. And our children, they worship money. And when it is their parents' money, they love it even more. Nowhere in the world do teenagers spend their parents money as freely and without compunction as they do here. We are to be blamed for that too because we are being permissive, not liberal. Parents are so involved in their work that they do not have time for their children. They buy children's affection with guilt-money. So kids now have cars, electronic gadgets, designer clothes. India is a fading figment of their parents' nostalgia. All they want is a job that will give them good money so that they can pursue their materialistic pursuits —preferably in America. But can you blame them? Look at the India they are living in—pollution is high, crime is endemic, brute power is law, civic amenities deplorable, justice nonexistent, Merit has no place. It is caste or connections that work. There are cases of affluence amidst unbelievable deserts of deprivation How long is India really sustainable? Can it really remain stable and peaceful amidst such grotesqueills and inequities. Often we are optimistic because we are afraid to be pessimistic. Impending scenarios scare the living daylights out of us. So we collectively believe that things will improve and gladly cite a variety of instances to prove that there are areas of growth and excellence. We want to be optimistic because we do not want to give in to despair. After all, what is life without hope?

125. **The author believes that he belongsto a failed generation because**

A India is todaystifled with poverty and corruption

B He believes he is morally responsible for not being able to hand over an unblemished India to the next generation

C He believes that his generation has not acceptedfailure gracefully

D He is pessimistic

Answer: A

126. **The author believes that the earlier generation was mainly concernedwith**

A Saving moneyfortheir children

B Changing the face of India

C Self sacrifice

D Giving their children a good education

Answer: A

127. **The authorthinks that his generation did not succeed in making a difference because**

A It overlooked nationalistic goals

B Its objectives were unrealistic to be met

C In its quest for personal excellence, it forgot its duties to the society

D It did not manageto create a personalidentity for itself

Answer: C

128. **While questioning India's sustainability, the author points out that**

A Terrorism spread by brutes is rampant

B Caste dividestill exists which over powers merit

C There are pockets of prosperity in the midst of widespread poverty

D The pollution rate is alarmingly high causing denudation

Answer: C

129. **In the opinion of the author the teenagers of today are spoilt by their parents because**

A Parents wanttheir children to have as nice a childhood as theirs

B Parents do not have time for their children so that they compensate with luxuries

C Parents becomenostalgic and indulge their children with expensive items

D Parents wantto fulfill their children's dreams of materialistic pursuits in America

Answer: B

Instructions [130 - 133]

Study the Following passage to answer these Questions:

Passage III:
Nothing is sure but death and taxes, and of course that north is north and south is south, and thus it has always been, so they say. But they'd be wrong. You can perhaps be sure about death and taxes, but you might want to reconsider the rest of it. In fact, at many times in our planet's history, north has become south and south has become north, in a process called magnetic reversal.

Paleogeologists have discovered the existence of these mysterious phenomena(in a field study known as paleomagnetism) by investigating rocks. When rocks are being formed from magmas, atoms within their crystals respond to the earth's magnetic field by "pointing" towards the magnetic north people. By age dating the rocks and nothing their magnetic alignment, scientists can determine where on earth the north pole was located at that time because as the rocks solidified, they trapped that information within them. The study of ancient lava flows has revealed that at certain periods in the earth's history magnetic north

was directly opposite its presentlocation. In fact, it has been determined that the north/south reversal has occurred on average every 500,000 years and that the last reversal took place about 700,000 years ago. Scientists call those periods of "normal" polarity (the magnetic orientation of our modern era) and “reversed” polarity (the magnetic orientation of reverse situation) by the name "magnetic chrons."

Although the fact of such reversals is clear, why and how they happen and their effects on the planet are subjects of considerable debate. Because no one knows precisely how the earth's magnetic field is produced, it becomes difficult to say how it might be reversed. Among explanations proposed are a reversal of the direction of convection currents in the liquid outer core of the earth and a collision between the earth and a meteorite or comet. And while the precise effects of a reversal are not known, there can belittle doubt that the earth would receive during the process a great deal more damaging ultraviolet radiation than it now does and that such occurrences have been correlated with the extinction of certain species in the geologic past.

130. **The main purpose of the passageis to**

A Present opposing hypotheses concerncing the earth's magnetic field and argue that one of them is adequate

B Explain what is meant by ‘normal’ polarity

C Set forth a time table for magnetic reversal

D Explain the process of magnetic reversal and how it was discovered

Answer: D

131. **'Magnetic reversal’ refers to**

A The reversal of direction in ancient lava flows

B Areversal of the direction of convection currents in the outer core of the earth

C North becoming south and south becoming north

D The atomsin rock crystal pointing towards the magnetic north pole

Answer: C

132. **According to the passage, which of the following was crucial to the discovery of magnetic reversal?**

A The rapid change from ‘normal to ‘reversal’ polarity

B Lava flows ‘pointing’ to magnetic north

C Solidification of rocks formed from magmas

D The extinction of certain species 700,000 years ago

Answer: C

133. **One can infer from the passage that**

A If the earth collides wiih a meteorite, the magnetic field will be reversed

B A magnetic reversal could present a damage to humans

C The earth's magnetic field was produced about 700,000 years ago

D In spite of past reversals, ‘normal’ polarity is now firmly established

Answer: B

Instructions [134 - 138]

In these questions, each word in capital letters is followed by four words or phrases. Choose the one which is similar in meaning to the word given in capital letters.

134. **FURLOUGH**

A Soliders holiday

B Wild growth

C Wooden plough

D Till

Answer: A

135. **PUNCTILIOUS**

A Prude

B Wasteful

C Meticulous

D Timid

Answer: C

136. **ENCOMIUM**

A Verve

B Eulogy

C Doggerel

D Force

Answer: B

137. **INVIDIOUS**

A Irritable

B Harsh

C Sinful

D Unpopular

Answer: A

138. **LACHRYMOSE**

A Terse

B Mournful

C Indecent

D Lecherous

Answer: B

Instructions [139 - 143]

In each of these Questions, a word is given in Capital letters followed by four options. Select the one which is farthest in meaning from the given word.

139. **CONSOLE**

A Balm

B Comfort

C Keyboard

D Solace

Answer: C

140. **PROLIFERATE**

A Reproduce

B Thrive

C Impel

D Burgeon

Answer: C

141. **REMOTE**

A Secluded

B Distant

C Slight

D Compunction

Answer: D

142. **IMMACULATE**

A Spotless

B Sinless

C Omnipresent

D Innocent

Answer: C

143. **OBLITERATE**

A Delete

B Demur

C Expunge

D Eliminate

Answer: B

Instructions [144 - 148]

Choose the option which contains a pair of words related to each other in the same way as the pair given in capitalletters.

144. **STABLE : ERRATIC: :**

A Beautiful : Large

B Compact : Clumsy

C Puny : Mammoth

D Huge : Untidy

Answer: B

145. **WHIP : FLAY::**

A Pigeon : Peace

B Chain : Punish

C Birth : Reward

D Switch : Chastise

Answer: B

146. **IRK : APPEASE::**

A Appreciate : Deprave

B Quibble : Clarify

C Ridicule : Decorate

D Stupefy : Debilitate

Answer: C

147. **PLAGIARIZE : BORROW::**

A Pilfer : Steal

B Explode: Ignite

C Export : Obtain

D Purify : Filter

Answer: C

148. **KING : CROWN::**

A Priest : Mitre

B Soldier : Gun

C Teacher : Chalk

D Sculptor : Chisel

Answer: A

Instructions [149 - 151]

In each of the sentences given in these questions, two parts of the sentence are left blank. Choosethe set of words for the blanksthat fits the meaning of the sentence as a whole in the best possible Way:

149. **The village headman was unlettered, but he was no fool, he could see through the ____ of the businessman's proposition and promptly ..... him down.**

A Deception —— forced

B Naivete —— turned

C Potential —— forced

D Sophistry —— turned

Answer: D

150. **The newly-opened restaurant at the District Centre ..... to the tastes of people from all walks of life and one is likely to find an ..... group there**

A Appeals - archetypal

B Panders - connoisseur

C Caters - ecletic

D Inhibits - diverse

Answer: C

151. **We must try to understand his momentary ..... for he has ..... more strain and anxiety than any among us.**

A Vision —— forgotten

B Aberration —— undergone

C Outcry —— described

D Senility ——— understood

Answer: B

Instructions [152 - 155]

In each of these questions, in the given sentences, a part of the sentenceis underlined. Beneath each sentence, four different ways of phrasing the underlined part are indicated. Choose the best alternative.

152. **Eaten in Portugal only, the Indian viewed the potato with suspicion for they assumed it had poisonous properties since only the white-skinned people consumed it.**

A Indians viewed the potato with suspicion for they

B Indians were suspicious of the potato, and they

C Potato was viewed with suspicion by Indians who

D Potato was suspicious to Indians, and it was

Answer: C

153. **Though he was more faster then his opponent on the field, his chances of winning the race was low as he lacked the killer instinct.**

A Though he was more faster than his opponentonthefield

B As he was morefaster than his opponentonthefield

C Though he was morefast from his opponent on thefield

D Though he wasfaster than his opponent on thefield

Answer: D

154. **The local library has recommended that the books put up for the used book sale should be in good condition and should have no writing in them or be underlined.**

A And should have no writing in them or be underlined.

B And should not have writing in them or not be underlined.

C And contain no writing or underlining.

D Without containing writing or underlining.

Answer: A

155. **The news of her elopment soon circulated around the small town.**

A Circulated round the small town.

B Circulated in the small town

C Was circulating across the small town.

D Wascirculating within the small town.

Answer: B

Instructions [156 - 160]

In each of these questions, each sentence has four underlined words or phrases marked A, B, C and D. Choose one word or phrase that must be changed for the sentence to be correct.

156. **He is one (A) of the shrewdest men (B) that is (C) in the (D) administration.**

A A

B B

C C

D D

Answer: C

157. **No sooner had he (A) come from Mumbai when (B) he was asked (C) to proceed to (D) Delhi.**

A A

B B

C C

D D

Answer: B

158. **Drug abuse have (A) become one of (B) our most (C) serious social problems. (D)**

A A

B B

C C

D D

Answer: A

159. **Alexander Calder, who was originally (A) interested in (B) mechanical engineering later (C) became a sculpture. (D)**

A A

B B

C C

D D

Answer: D

160. **Studying (A) the science of (B) logic is one way to (C) cultivate one's reason (D) skills.**

A A

B B

C C

D D

Answer: D

161. **Who is not a well known Indian Fashion designer?**

A Ravi Bajaj

B Rohit Bal

C Shefali Talwar

D Suneet Verma

Answer: C

162. **'Bottle neckinflation' means**

A No rise in prices despite increase in aggregate demand

B Rise in prices without increase in aggregate demand

C Decline in prices due to increase in aggregate demand

D Noneof these

Answer: B

163. **The United Nations cameinto existence in the year**

A 1945

B 1950 **C**

1946 **D**

1947

Answer: A

164. **Kalpakkam Atomic Power Plant located in**

A Rajasthan

B Orissa

C Tamil Nadu

D UP

Answer: C

165. **Whois not a well known personality in the field of advertising?**

A Alyque Padamsee

B Frank Simoes

C Kamlesh Pande

D Anurag Mathur

Answer: D

166. **Ashok Leyland is owned by the**

A Tatas Birlas

B Hindujas

C None of these

D

Answer: C

167. **World Population Day is observed on**

A July 15

B July 11

C October 8

D September 5

Answer: B

168. **Which companyusesthe adline, 'Knowing is everything'?**

A BBC World

B Star

C Sony

D Zee

Answer: A

169. **The book 'Cricket My Style' is written by**

A Sunil Gavaskar

B Sachin Tendulkar

C Kapil Dev

D Mohinder Amarnath

Answer: C

170. **Varishtha Pension Bima Yojaria has been launched by**

A National Insurance Co.

B United India Insurance Co.

C LIC of India

D Oriental Insurance Co.

Answer: C

171. **Makers of which tyres sponsor Indian racing ace Narain Karthikeyan?**

A JK

B MRF

C Dunlop

D MOdi

Answer: B

172. **The part of profit or other surpluses of a company distributed proportionately among shareholders is called**

A Preference Share

B Equily Share

C Face Value

D None of these

Answer: B

173. **Tenth Five-Year Plan covers the period**

A 2001-2006 **B**

2002-2007 **C**

2003-2008 **D**

2000-2005

Answer: B

174. **Recession in the market implies**

A Slumpin trade & industry dueto fall in demand

B Increase in trade and industry due to rise in demand

C No changein trade and industry due to stability in demand

D None of these

Answer: A

175. **In the recent past, Reliance has found the gasin**

A Mumbai off shore

B Mahanadibasin

C Krishna-Godavari basin

D Kaveri basin

Answer: C

176. **River Ganga does not pass through the State of**

A UP

B Bihar

C Haryana

D West bengal

Answer: C

177. **Which brand/company usesthe ad line "We know India better"?**

A Max New York Life Insurance

B LIC of India

C Amul

D Bajaj

Answer: B

178. **Hirakud Dam Project has been built over the river**

A Ganga

B Yamuna

C Godavari

D Mahanadi

Answer: D

179. **Kaziranga National Parkis located in**

A Bihar

B West Bengal

C UP

D None of these

Answer: D

180. **The capital of New Zealand is**

A Hamilton

B Sofia

C Logos

D Wellington

Answer: D

181. **Which is South Korea's largest car manufacturing company?**

A Hyundai

B Honda

C Suzuki

D Toyota

Answer: A

182. **Which petroleum companyhas introduced an improved quality petrol called 'Speed'?**

A Bharat Petroleum

B Indian Oil Hindustan Petroleum

C None of these

D

Answer: A

183. **To permit operations of private life insurance companies in India, Government of India revised the Insurance Regulatory and Development Authority (IRDA) Act in the year**

A 1999

B 1998 **C**

2000 **D**

2001

Answer: A

184. **Ex-officio Chairman of Rajya Sabhais the**

A Prime Minister of India

B Deputy Prime Minister of India

C Vice-President of India

D President of India

Answer: C

185. **Nandan Nilekani is associated with which company?**

A Satyam Computers

B Wipro

C Infosys

D Polaris

Answer: C

186. **Farakka Barraaeis localed in**

A Tripura

B Bihar

C West Bengal

D Jharkhand

Answer: C

187. **WLL standsfor**

A Wireless in Local Loop **B**

Walking Land Line **C**

Walking Loop Line **D**

Wireless Land Line

Answer: A

188. **Headquarters of World Trade Organisation (WTO)is located in**

ANew York

BTokyo

CGeneva

DBerlin

Answer: C

189. **NABARD stands For**

A National Bank of Agriculture and Regional Development

B National Bank for Agriculture and Rural Development

C National Bureau of Aeronautical Research and Development

D None of these

Answer: B

190. **Sania Mirza of India wonthe Girls Wimbledon Doubles Championship 2003 partnering with**

A Sunitha Roa

B Isha Lakhani

C Sanaa Bhambri

D Alisa Kleybanova

Answer: D

191. **Which is the largest tea producing country in the world?**

A Kenya

B Indonesia

C China

D India

Answer: D

192. **Suvidha Fixed Deposit scheme was launched by which bank?**

A IDBI

B ICICI

C SBI

D City Bank

Answer: A

193. **Philip Kotler is a widely known personality in the field of**

A Fine arts

B Sports

C Music

D Management

Answer: D

194. **BPOis an abbreviation for**

A Bharat Petroleum Organisation

B Business Process Outsourcing

C Business Products Outsourcing

D Bharat Pesticides Outlet

Answer: B

195. **Which of the following countries does not belong to the group of G-8 nations?**

A Itally

B Canada

C Germany

D Australia

Answer: D

196. **Hamburg Masters Hockey Trophy 2003 was won by**

A India

B Australia **C**

Germany

D Pakisthan

Answer: A

197. **In the last decade, population growth rate of which State has been the lowestin the country?**

A Kerala

B Tamil Nadu

C Andhra Pradesh

D Orissa

Answer: A

198. **K.L.M. Royal Airlines belongs to**

A Itally

B Japan

C Netherlands

D Austria

Answer: C

199. **. Who amongthe following personsis closely associated with the leading company ITC Ltd?**

A M.S. Banga

B K. Gopalkrishnan

C Yogi Deveshwar

D Deepak Satwalekar

Answer: C

200. **Which one of the following is not manufacturing mobile telephone handsets?**

A Samsung

B Nokia

C Videocon

D Sony

Answer: C