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JIPMAT 2021 OFFICIAL PAPER

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QUANTITATIVE ABILITY**Questions: 33 (+4/-1)****Total Test time: 2.5 Hrs**

1. The digit in the unit's place of the number represented by $(7^{95} - 3^{58})$ is
 (a) 0 (b) 4
 (c) 6 (d) 7
2. The HCF of $\frac{9}{10}, \frac{12}{25}, \frac{18}{35}, \frac{21}{40}$ is.
 (a) $\frac{3}{5}$ (b) $\frac{252}{5}$
 (c) $\frac{63}{700}$ (d) $\frac{3}{1400}$
3. The value of $(25.732)^2 - (15.732)^2$ is
 (a) 414.64 (b) 41.464
 (c) 4146.4 (d) 4.1464
4. A train starts full of passengers. At the first station, it drops one third of passengers and takes 280 more. At the second station, it drops one half of the new total and takes 12 more. On arriving at the third station, it is found to have 248 passengers. The number of passengers in the beginning was
 (a) 156 (b) 288
 (c) 564 (d) 608
5. The value of $\left(\frac{1}{\sqrt{9}-\sqrt{8}} - \frac{1}{\sqrt{8}-\sqrt{7}} + \frac{1}{\sqrt{7}-\sqrt{6}} - \frac{1}{\sqrt{6}-\sqrt{5}} + \frac{1}{\sqrt{5}-\sqrt{4}}\right)$ is
 (a) 0 (b) 1
 (c) $\frac{1}{5}$ (d) 5
6. In a cricket team of 11 players, the average age is 28 years. Out of these, the average ages of three groups of three players each are 25 years, 28 years and 30 years respectively. If in these groups, the captain and the youngest player are not included and the captain is eleven years older than the younger player, then the age of the captain is
 (a) 33 (b) 34
 (c) 35 (d) 5
7. A number consists of two digits whose sum is 8. If 18 is added to the number, its digits are interchanged. The number is
 (a) 26 (b) 35
 (c) 53 (d) 62
8. $\frac{4}{7}$ of a pole is in the mud. When $\frac{1}{3}$ of it is pulled out, 250 cm of the pole is still in the mud. The full length of the pole is
 (a) 750 cm (b) 1050 cm
 (c) 1350 cm (d) 437.5 cm
9. If $2^x = 3^y = 6^{-z}$, then $\left(\frac{1}{x} + \frac{1}{y} + \frac{1}{z}\right)$ is equal to
 (a) 4 (b) 2
 (c) 1 (d) 0
10. A candidate scoring 25% marks in an examination fails by 30 marks while another candidate who score 50% marks gets 20 marks more than those required to pass. The pass percentage is
 (a) 30% (b) 33%
 (c) 35% (d) 40%
11. A dishonest dealer professes to sell his goods at cost price. But he uses a false weight and thus gain $6\frac{18}{47}\%$. For a kg, he uses a weight of
 (a) 953 g (b) 947 g
 (c) 940 g (d) 960 g
12. Harish divides two sums of money among his four sons Naresh, Vipin, Bhupesh, and Yogesh. The first sum is divided in the ratio 4 : 3 : 2 : 1 and second in the ratio 5 : 6 : 7 : 8. If the second sum is twice the first, then the largest total is received by
 (a) Naresh (b) Vipin
 (c) Bhupesh (d) Yogesh

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13. A is working, and B a sleeping partner in a business. A puts in Rs.12000 and B Rs. 20000. A received 10% of the profit for managing, the rest being divided in proportion to their capitals. Out of a total profit of Rs. 9600, the money received by A will be
(a) Rs. 3240 (b) Rs. 3600
(c) Rs. 4200 (d) Rs. 4840
14. A contractor undertakes to do a piece of work in 40 days. He engages 100 men at the beginning and 100 more after 35 days and completes the work in stipulated time. If he had not engaged the additional men, how many days behind schedule would it be finished?
(a) 3 (b) 5
(c) 6 (d) 8
15. 4 men and 6 women finish a job in 8 days, while 3 men and 7 women finish it in 10 days. In how many days will 10 women finish it?
(a) 24 (b) 32
(c) 36 (d) 40
16. A pump can be operated both for filling a tank and for emptying it. The capacity of tank is 2400 m^3 . The emptying capacity of the pump is 10 m^3 per minute higher than its filling capacity. Consequently, the pump needs 8 minutes less to empty the tank as to fill it. The filling capacity of pump is
(a) $40\text{ m}^3/\text{minute}$ (b) $50\text{ m}^3/\text{minute}$
(c) $60\text{ m}^3/\text{minute}$ (d) $80\text{ m}^3/\text{minute}$
17. A boy covers a certain distance on a toy train. If the train moved 4 kmph faster, it would take 30 minutes less. If it moved 2 kmph slower, it would have taken 20 minutes more. The distance is
(a) 40 km (b) 50 km
(c) 60 km (d) 80 km
18. A train with 90 kmph crosses a bridge in 36 s. Another train 100 m shorter crosses the same bridge at 45 kmph. The time taken by the second train to cross the bridge will be
(a) 60 s (b) 64 s
(c) 68 s (d) 72 s
19. A man rows 20 km upstream and back again to the starting point in 110 minutes. If the speed of stream is 2 kmph, then the speed of rowing in still water is
(a) 20 kmph (b) 22 kmph
(c) 24 kmph (d) 28 kmph
20. A mixture of alcohol and water contains 35% alcohol by weight. If 25 g water is added to such a mixture of 100 g, then the percentage of alcohol in the mixture is
(a) 25% (b) 28%
(c) 30% (d) 32%
21. A man pays 40 times the annual rent to purchase a building. The rate % per annum he derives from his investment is
(a) 2.5% (b) 4.0%
(c) 3.33% (d) 6.67%
22. A certain sum is lent at a certain rate of compound interest. It grows to 1.44 times its value in 2 years. If the same sum is lent at simple interest at the same rate, in how many years would it double itself?
(a) 3 years (b) 4 years
(c) 5 years (d) 6 years
23. In a rhombus, the length of the two diagonals are 40m and 30m respectively. Its perimeter will be
(a) 70 m (b) 80 m
(c) 90 m (d) 100 m
24. The length of canvas 1.1 m wide required to build a conical tent of height 14m and the floor area 346.5 m^2 is
(a) 525 m (b) 490 m
(c) 665 m (d) 860 m
25. One cubic meter of iron weighs 7.800 kg. The weight of iron in a pipe of length 4 m, whose interior and exterior diameters measure 10 cm and 12 cm respectively, is nearly
(a) 118 kg (b) 108 kg
(c) 88 kg (d) 78 kg
26. In a flat race, A beats B by 15 m and C by 29 m. When B and C run over the same course together, B wins by 15 m. The length of the course is
(a) 200 m (b) 225 m
(c) 250 m (d) 275 m

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27. At what angle the hands of a clock are inclined at 15 minutes past 5 ?

- (a) $72\frac{1}{2}^\circ$ (b) $67\frac{1}{2}^\circ$
(c) 64° (d) $58\frac{1}{2}^\circ$

28. The odd term out in the series

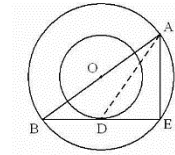
15, 16, 34, 105, 424, 2124, 12756 is

- (a) 16 (b) 34
(c) 105 (d) 2124

29. ABC is right angled triangle at C. Let BC = a, CA = b and AC = c and let p be the length of perpendicular from C on AB, then cp is equal to

- (a) ab (b) ac
(c) bc (d) a+b

30. The radius of two concentric circle are 13 cm and 8 cm. AB is a diameter of the bigger circle. BD is tangent to the smaller circle touching it at D. The length AD is



- (a) 15 cm (b) 17 cm
(c) 19 cm (d) 21 cm

31. The minimum value of $(2\sin^2\theta + 3\cos^2\theta)$ is

- (a) 0 (b) 1
(c) 2 (d) 3

32. If the m^{th} of an arithmetic progression is $\frac{1}{n}$ and n^{th} term is $\frac{1}{m}$, then $(mn)^{th}$ term of

- (a) $\frac{1}{mn}$ (b) $\frac{m}{n}$
(c) $\frac{n}{m}$ (d) 1

33. If points (t, 2t), (-2, 6) and (3, 1) are collinear, then t is equal to

- (a) $\frac{3}{4}$ (b) $\frac{4}{3}$
(c) $\frac{3}{5}$ (d) $\frac{5}{3}$



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34. In this question, a number series is given with one term missing. Choose the correct option that will continue the same pattern.

17, 19, 15, 23, 7, 39?

- (a) 18 (b) 9
(c) -25 (d) 25

35. In this question, an alphabet series is given with one term missing. Choose the correct option that will continue the same pattern.

MOQ, SUW, YAC?

- (a) DHJ (b) FIJ
(c) EGI (d) XAD

36. In this question, a letter series is given where some of the letters are missing. The missing letters are given in the order as one of the options below it. Choose the correct option.

a_c_____ba_ca_____cb

- (a) abcc (b) acba
(c) bcaa (d) bcba

37. There is a certain relation between two given numbers on one side of :: and one number is given on another side of :: . A number is to be found from the given options having the same relation with this number as the given pair.

210 : 380 :: 182 : ?

- (a) 156 (b) 240
(c) 272 (d) 342

38. There is a certain relation between two given words on one side of :: and one word is given on another side of :: . A word is to be found from the given options having the same relation with this word as the given pair.

Drill: Bore :: Sieve : ?

- (a) Thresh (b) Sift
(c) Pry (d) Rinse

39. In this question, there are four options. Three of them are alike and one is different. Find the odd one out.

- (a) February, 2021 (b) March, 2021
(c) November, 2021 (d) December, 2021

40. This question is based on the information given below:

The six faces of cube are painted in a manner that no two adjacent faces have the same colour. The three colours used in painting are red, blue and green. The cube is then cut into 36 smaller cubes in a manner that

32 cubes are of one size and the rest of a bigger size and each of the bigger cube has no red side. How many cubes only have one side coloured?

- (a) 0 (b) 4
(c) 8 (d) 16

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41. Which one word cannot be made from the word 'MIRACULOUS'?

- (a) LOCUS (b) SCAR
(c) SOLACE (d) MOLAR

42. If '+' means '+', '-' means 'x', '÷' means '+' and 'x' means '-' then $36 \times 12 + 4 \div 6 + 2 - 3$ is equal to

- (a) 2 (b) $\frac{61}{2}$
(c) 18 (d) 42

43. In this question, relationship between different elements is shown in the statements. The statements are followed by two conclusions numbered I and II.

Statement : $H > P \leq E < L = R < V$; $F \geq V$
Conclusion : I. $F > E$

II. $H > R$

Study the conclusions and give your answer as follows :

- (a) If only conclusion I is true
(b) If only conclusion II is true
(c) If both the conclusions I and II are true
(d) If neither conclusion I nor conclusion II is true

44. Study the information given below and answer the question that follow.

There are four friends A, B, C, D. One of them is a cricketer and studies chemistry and biology. A and B play football. Both football players study mathematics. D is a boxer. One football player also studies physics. The boxer studies mathematics and accounts. All the friends study two subjects each and play one game each.

How many games are played and subjects studied by the friends A, B, C, D?

- (a) 2 games and 3 subjects (b) 2 games and 4 subjects
(c) 3 games and 4 subjects (d) 3 games and 5 subjects

45. Read the following information and then answer the question given below.

- (i) Q is brother of R.
(ii) P is sister of Q (iii) T is brother of S (iv) S is daughter of R

Who are the niece of Q?

- (a) R and P (b) P and T
(c) Q and T (d) S and T

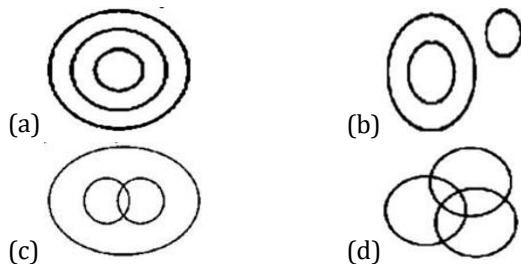
46. In a certain code, 'il be pee' means 'roses are blue', 'sik hee' means 'red flowers' and 'pee mit hee' means 'flowers are vegetables', then which word stands for 'red'?

- (a) hee (b) sik
(c) be (d) cannot be determined

47. Sandhya walks 10 m towards the south. Turning to the left, she walks 20 m and then turns to her right. After moving a distance of 20 m, she turns to the right and walks 20 m. Finally, she turns to the right and moves 10 m. In which direction is she moving

- (a) North (b) South
(c) East (d) West

48. Which of the following figures correctly represent the relation between Tall men, Black haired people, Indians



49. Chandrika is 8 ranks ahead of Jaya who ranks twenty sixth in a class of 42. What is Chandrika's rank from the last?

- (a) 9th (b) 24th
(c) 25th (d) 34th

50. X was born on March 6, 201(d) The same year Independence Day was celebrated on Friday. On which day X was born?

- (a) Wednesday (b) Thursday
(c) Friday (d) Saturday

51. In this question, find out how many such pairs of letters are there in the given word each of which has as many letters between them in the word as in the English alphabet.

CREATIVE

- (a) Four (b) Three
(c) Two (d) One

52. Study the following arrangement carefully and answer the question given below. A B 7 C D 9 Z Y * P Z M © K S 3 ↑ 5 N T @

How many such digits are there in the sequence each of which is immediately preceded as well as followed by a letter?

- (a) None (b) One
(c) Two (d) Three

53. In this question, arrange the given words in a meaningful sequence and then choose the most appropriate sequence from amongst the options provided below the question.

- A. Presentation
B. Recommendation
C. Arrival
D. Discussion
E. Introduction

- (a) C, E, A, D, B (b) C, E, D, B, A
(c) E, C, A, B, D (d) E, C, D, A, B

54. Below a question is given along with two statements numbered I and II. You have to decide whether the data provided in the statements are sufficient to answer the question.

If a and b are integers, is $(a + b)$ an odd number?

Statement I : $8 < 9 < 11$

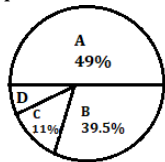
Statement II : $7 < 9 < 10$

Choose your answer from the options given below:

- (a) If the data in statement I alone are sufficient to answer the question.
(b) If the data in statement II alone are sufficient to answer the question.
(c) If the data in statement I and statement II both are necessary to answer the question
(d) If the data in statement I and statement II together

are not sufficient to answer the question.

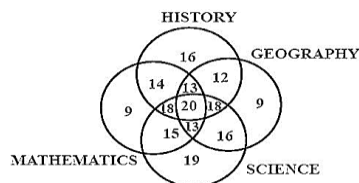
55. Study the graph and answer the question that follows: The graph indicates the cost of the production of a firm.



A = Raw material cost
 B = Packing material cost
 C = Fixed manufacturing expenses
 D = Labour cost
 The total value in rupees of all sectors is 120.0 lakh.
 If the total labour cost increases to Rs. (b) 4 lakh, what percentage increase does it represent?

- (a) 25%
- (b) 75%
- (c) 300%
- (d) 400%

56. In this question, there are two statements followed by two conclusions numbered I and II. You have to take the given statement to be true, even if it seems to be at variance with commonly known facts and then decide which of the conclusions logically follow(s) from the given statements.



Statement : No women can vote. Some women are politicians.

Conclusion : I. Male politicians can vote.
 II. Some politicians can vote. Your answer will be as follows:

- (a) If only conclusion I follows
- (b) If only conclusion II follows
- (c) If both conclusion I and II follow
- (d) If neither conclusion I nor conclusion II follows

57. In this question, a statement is given which is followed by two conclusions numbered I and II. You have to assume everything in the statement to be true, then consider the conclusions and decide which of them logically follow(s).

Statement : Fortune favours the brave.

Conclusion : I. Risks are necessary for success.

II. Cowards die many times before their death. Mark your answer as :

- (a) If only conclusion I follows
- (b) If only conclusion II follows
- (c) If both conclusion I and II follow
- (d) If neither conclusion I nor conclusion II follows

58. In this question, there are two statements labelled as Assertive (A) and Reason (R). Assertion (A) : An electric bulb makes a 'bang' when it is broken. Reason (R) : The air inside the bulb rushes out immediately on breaking. Mark your answer as follows:

- (a) Both A and R are true and R is the correct explanation of A.
- (b) Both A and R are true but R is not the correct explanation of A.
- (c) A is true but R is false.
- (d) A is false but R is true.

59. In a family, each daughter has the same number of brothers as she has sisters and each son has twice as many sisters as he has brothers. How many sons are there in the family?

- (a) 2
- (b) 3
- (c) 4
- (d) 5

60. The diagram indicates the number of students taking different subjects. Which subject was taken by the largest number of students?

- (a) Mathematics
- (b) Science
- (c) History
- (d) Geography

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61. Study the following information and answer the question.
Seven villages A, B, C, D, E, F and G are situated as follows:
E is 2 km to the west of B
F is 2 km to the north of A
C is 1 km to the west of A
D is 2 km to the south of G
G is 2 km to the east of C
D is exactly in the middle of B and E. How far is D from F (in km) as the crow flies?
- (a) $\sqrt{5}$ (b) $2\sqrt{2}$
(c) $\sqrt{17}$ (d) $\sqrt{20}$
62. In this question, choose that set of numbers from the four options, that is similar to the set (63, 49, 35)
- (a) (72, 40, 24) (b) (72, 48, 24)
(c) (64, 40, 28) (d) (81, 63, 45)
63. In this question, a group three interrelated words are given. You have to study the relationship between these words and choose another group with similar relationship from the given options.
Pink : Red : White
- (a) Orange : Yellow : Black (b) Green : Blue : Yellow
(c) Yellow : Red : Green (d) Brown : Black : Blue
64. The question consists of two words that have a certain relationship to each other, followed by four lettered pairs of words. Select the lettered pair that has the same relationship as the original pair of words.
Wind : Gale
- (a) Disgust : Infatuation (b) Storm : Sea
(c) Love : Passion (d) Disaster : Calamity
65. In this question, four numbers are given. Out of these, three are alike in a certain way and one is different. Choose the one which is different from the rest three.
- (a) 5698 (b) 7894
(c) 9865 (d) 8793
66. In this question, four groups of letters are given, out of which three are alike in a certain way while one is different. Choose the odd one.
- (a) B d E g (b) K m N p
(c) P r S u (d) T w X z

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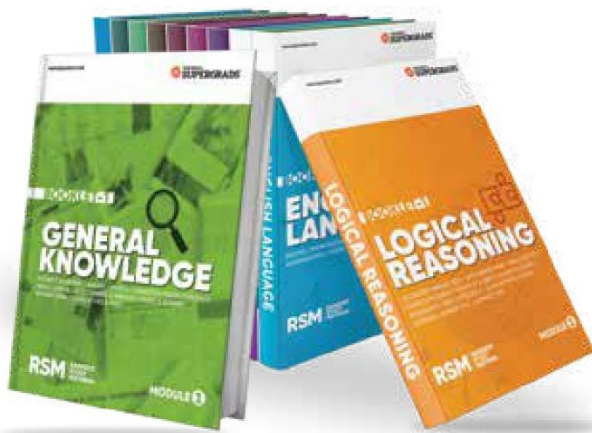
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67. **Passage:** Earth is the only planet so far know with the suitable environment for sustaining life. Man has been tampering with the ecosphere for a long time and is forced to recognize that environmental resources are scarce. Environmental problems are really social problems. They begin with people as cause and end with people as victims. **Unplanned use of resources has resulted in the depletion of fossil fuels**, pollution of air and water, deforestation which has resulted in ecological imbalance and draining away of national wealth through heavy expenditure on oil and power generation.
Depletion of fossil fuels, pollution of air and water and deforestation will never occur in case of:
- (a) improper use of resources
(b) over use of resources
(c) planned use of resources
(d) unplanned use of resources
68. Choose the word which is most nearly the same in meaning to the word 'VENERATE'.
- (a) Abuse (b) Accuse
(c) Defame (d) Respect
69. Choose the word which is opposite in meaning to the word 'AUDACIOUS'
- (a) Cowardly (b) Manifest
(c) Obvious (d) Venture
70. Fill in the blanks by the proper preposition in the sentence.
What is the time _____ your watch?
- (a) by (b) in
(c) on (d) with
71. Fill in the blanks by the same proper word from the given option in both _____ the sentences.
A. The manager is not _____ for his position.
B. In a _____ of anger, the teacher turned him out of the class.
- (a) capable (b) fit
(c) qualified (d) true
72. In this question, out of the four options choose the one which can be substituted for the sentence. One who feels at home in every country
- (a) Citizen (b) Cosmopolitan
(c) Denizen (d) Metropolitan
73. In this question, four options are given for the idiom underlined in the sentence. Choose the one which best expresses the meaning of the idiom.
For his alleged involvement in espionage, he is under a cloud these days.
- (a) enjoying favourable luck
(b) experiencing cloudy weather
(c) under observation
(d) under suspicion
74. The following phrase is followed by four options. One of the options best describes its meaning. Select the correct option.
A thing of little or no importance
- (a) trifle (b) twinkling
(c) useless (d) Vague
75. Select the word which is correctly spelt.
- (a) VIOLANCE (b) VIOLENCE
(c) VOILANCE (d) VOILENCE
76. In this question, a sentence has been given in Active voice. From the given options, choose the one which best expresses the given statement in Passive voice.
The cat drank all the milk.
- (a) All the milk had been drunk by the cat
(b) All the milk has been drunk by the cat
(c) All the milk was drank by the cat
(d) All the milk was drunk by the cat

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77. In this question, a sentence has been given in Direct form. Out of the four options, select the one which best expresses the same sentence in Indirect form.
He said, "I must go at once".
- (a) He asked to go at once.
(b) He said that he had gone at once.
(c) He said that he had to go at once.
(d) He told if he had to go at once.
78. From the given options, identify the tense used in the sentence "Welcome to the ceremony".
- (a) Past indefinite tense (b) Past perfect tense
(c) Present Indefinite tense (d) Present perfect tense
79. In this question, six words are given which are denoted by I, II, III, IV, V and VI. By using all the six words, each only once, you have to frame a meaningful and grammatically correct sentence. The correct order of the words is your answer, to be chosen by you from the given options.
I. it; II. wanted; III. not; IV. you; V. is; VI. what
- (a) V, I, III, VI, IV, II (b) VI, IV, II, V, I, III
(c) VI, V, II, I, III, IV (d) VI, V, III, IV, I, II


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80. In this question, a pair of words is given with certain relationship followed by four pairs of words. Choose the pair that best expresses a relationship similar to that expressed in the original pair.
MAN : HUMANITY
- (a) Drop : Ocean (b) Flower : Fragrance
(c) Frame : Picture (d) Scholar : Books
81. In this question, a sentence has been split into four parts denoted as P, Q, R and S. These parts are jumbled up. Rearrange the jumbled parts to make a meaningful sentence.

P. far beyond that any minority communalism can
Q. that in a democratic setup like India,
R. and this for the simple reason
S. majority communalism can acquire power

- (a) Q R S P (b) R Q P S
(c) R Q S P (d) S R P Q
82. Certain parts in the following sentence are underlined. One of the parts has an error. Identify that part from the given options.
She is not one of those who is so foolish.
- (a) one of (b) She is not
(c) so foolish (d) who is
83. In this question, there are two sentences I and II, each having a blank, followed by four words. Select only one word which fills both the blanks.
- I. The company has agreed in _____ to our suggestion.
II. The equipment works on the _____ of Archimedes.
- (a) basis (b) general
(c) principle (d) View
84. **Direction:** Read the following passage and answer the question that follows.
Passage: There are many types of protein molecules in the body, and each type is specific to its function. For example, proteins such as keratin and collagen give strength and elasticity to hair, as well as to skin and tendons; haemoglobin and myoglobin are the oxygenbinding proteins of the blood and the muscle respectively; and ovalbumin, the principal protein off egg white is responsible for setting and foaming properties of eggs. A particularly important group of proteins know as enzymes, direct all the body cells to produce chemical reactions. These reactions provide the basis of every type of cell activity, including growth, repair, the production of energy and the excretion of waste products.
Proteins are classified according to
- (a) the number of molecules
(b) the part of the body they are found in
(c) their functions
(d) their names
85. In this question, each option has a pair of words. Each pair consists of words which are more or less similar in meaning (synonyms). However, one pair of words may be wrong. Select the pair which is wrong.
- (a) Danger : Peril (b) Indulge : Deny
(c) Infringe : Break (d) Luxury : Pleasure

86. In this question, word pairs consist of words which are opposite in meaning to each other (antonyms). Select the pair which consist of words which are not opposite in meaning.
- (a) Excitable : Calm (b) Exquisite : Delicate
(c) Numb : Active (d) Obnoxious : Free
87. Fill in the blanks by the proper preposition in the sentence
I have not seen him _____ a long time.
- (a) by (b) for
(c) from (d) Since
88. Fill in the blanks by proper word in the sentence.
He was frightened_____.
- (a) for being killed (b) from being killed
(c) of being killed (d) to be killed
89. In this question, Out of the four options choose the one which can be substituted for the sentence. A general pardon granted by the Government to political offenders
- (a) amnesty (b) excuse
(c) honesty (d) pardon
90. In the following sentence, an idiom is underlined and is followed by four options of the words. Select from the options, the one which is nearest to the underlined idiom.
He was all at sea when he began his new job.
- (a) happy (b) puzzled
(c) sad (d) Triumphant
91. In the following sentence, a phrase is underlined and is followed by four options of the words. Select from the options of the words. Select from the options, the one which is nearest in meaning to the underlined phrase.
Those who work by fits and starts seldom show good results.
- (a) disinterestedly (b) irregularly
(c) rarely (d) Regularly
92. In this question, select the word which is incorrectly spelt.
- (a) CURRICULER (b) DIAGNOSIS
(c) DIFFICULTIES (d) ESSENTIALLY
93. In the question, a sentence has been given in Active voice. Out of the four options, select the one which best expresses the same sentence in Passive voice.
Who wrote it?
- (a) By who will it be written?
(b) By who would it be written?
(c) By whom might it be written?
(d) By whom was it written?
94. In this question, a sentence has been given in Indirect form. Out of the four options suggested, select the one which best expresses the same sentence in Direct form.
He says that he is very sorry.
- (a) He said, "He is very sorry".
(b) He said, "He was very sorry".
(c) He says, "I am very sorry".
(d) He told me, "I felt sorry".
95. From the given options, identify the tense used in the sentence "Everyone shall be reaching by tomorrow."
- (a) Future continuous tense
(b) Future Indefinite tense
(c) Future perfect continuous
(d) Present continuous tense
96. In this question, six words are given which are denoted by I, II, III, IV, V and VI. By using all six words, each only once, you have to frame a meaningful and grammatically correct sentence. The correct order of the words is your answer, to be chosen by you from the given options.
I. development; II. are; III. routes; IV. there; V. of; VI. three
- (a) III, V, I II, IV, VI (b) III, V, VI, II, I, IV
(c) IV, II, VI, III, V, I (d) VI, II, IV, III, V, I
97. In this question, a related pair of words is followed by four pair of words. Select the pair that best expresses a relationship similar to that expressed in the original pair.
LIQUEFY : PETRIFY
- (a) Blend : Separate (b) Cash : Invest
(c) Melt : Freeze (d) Soften : Frighten
98. In this question, a sentence has been split into four parts denoted as P, Q, R and S. These parts are jumbled up. Rearrange the jumbled parts to make a meaningful sentence.
P. among ordinary people to see health as a
Q. is that there is an increasing tendency
R. right and responsibility
S. the only hopeful sign in such a situation
- (a) P R S Q (b) R Q S P
(c) S Q P R (d) S Q R P
99. Certain parts in the following sentence are underlined. One of the parts has an error. Identity that part from the given options.

Mr. Gupta, our Chairman, accompanied by his secretary have arrived at the office.

- (a) accompanied (b) at the office
(c) have (d) his secretary

100. In this question, there are two sentences I and II, each having a blank, followed by four words, Select only one word which fills both the blanks.

- I. The child sat _____ through the long sermon.
II. We have _____ to receive the documents.
- (a) out (b) quiet
(c) quietly (d) Still

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ANSWER KEY AND EXPLANATIONS

- (b)** Unit digit in $7^{95} = \text{Unit digit in } [(7^4)^{23} \times 7^3]$
 = Unit digit in $[(\text{Unit digit in } (2401))^{23} \times (343)]$
 = Unit digit in $(1^{23} \times 343)$
 Unit digit in (343)
 = 3
 Unit digit in $3^{58} = \text{Unit digit in } [(3^4)^{14} \times 3^2]$
 = Unit digit in $[(\text{Unit digit in } (81))^{14} \times 3^2]$
 = Unit digit in $[(1)^{14} \times 3^2]$
 = Unit digit in (1×9)
 = Unit digit in (9)
 = 9
 Unit digit in $(7^{95} - 3^{58}) = \text{Unit digit in } (343-9) =$
 Unit digit in $(334) = 4.$
 So, Option B is the answer.
- (a)** H.C.F of fractions = $\frac{\text{H.C.F of numerator}}{\text{L.C.M of denominator}}$
 $= \frac{\text{H.C.F (9,12,18,21)}}{\text{L.C.M (10,25,35,40)}}$
 Factors of 9 = 3×3
 Factors of 12 = $3 \times 2 \times 2$
 Factors of 18 = $3 \times 3 \times 2$
 Factors of 21 = 3×7
 Common factor = 3
 $\therefore \text{H.C.F} = 3$
 Factors of 10 = 5×2
 Factors of 25 = 5×5
 Factors of 35 = 5×7
 Factors of 40 = $5 \times 2 \times 2 \times 2$
 L.C.M = 1400
 $\text{H.C.F} = \frac{3}{1400}$
- (a)** Given, $(25.732)^2 - (15.732)^2$
 Using $a^2 - b^2 = (a + b)(a - b)$, we get
 = $(25.732 + 15.732)(25.732 - 15.732)$
 = 41.464×10
 = 414.64
- (b)** Let no of passengers in the beginning be x
 After first station no. of passengers = $(x - \frac{x}{3}) +$
 $280 = \frac{2x}{3} + 280$
 after second station no. of passengers = $\frac{1}{2(\frac{2x}{3} + 280)} +$
 12
 $\frac{1}{2(\frac{2x}{3} + 280)} + 12 = 248$
 $\frac{2x}{3} + 280 = 2 \times 236$
 $\frac{2x}{3} = 192$
 $X = 288$
- (d)**

$$\begin{aligned} & \frac{1}{\sqrt{9}-\sqrt{8}} - \frac{1}{\sqrt{8}-\sqrt{7}} + \frac{1}{\sqrt{7}-\sqrt{6}} - \frac{1}{\sqrt{6}-\sqrt{5}} + \frac{1}{\sqrt{5}-\sqrt{4}} \\ &= \frac{(\sqrt{9} + \sqrt{8})}{(\sqrt{9} - \sqrt{8})(\sqrt{9} + \sqrt{8})} - \frac{(\sqrt{8} + \sqrt{7})}{(\sqrt{8} - \sqrt{7})(\sqrt{8} + \sqrt{7})} \\ &+ \frac{(\sqrt{7} + \sqrt{6})}{(\sqrt{7} - \sqrt{6})(\sqrt{7} + \sqrt{6})} - \frac{(\sqrt{6} + \sqrt{5})}{(\sqrt{6} - \sqrt{5})(\sqrt{6} + \sqrt{5})} \\ &+ \frac{(\sqrt{5} + \sqrt{4})}{(\sqrt{5} - \sqrt{4})(\sqrt{5} + \sqrt{4})} \\ &= \frac{(\sqrt{9} + \sqrt{8})}{(9 - 8)} - \frac{(\sqrt{8} + \sqrt{7})}{(8 - 7)} + \frac{(\sqrt{7} + \sqrt{6})}{(7 - 6)} \\ &- \frac{(\sqrt{6} + \sqrt{5})}{(6 - 5)} + \frac{\sqrt{5} + \sqrt{4}}{(5 - 4)} \\ &= \sqrt{9} + \sqrt{8} - \sqrt{8} - \sqrt{7} + \sqrt{7} + \sqrt{6} - \sqrt{6} - \sqrt{5} + \sqrt{5} + \sqrt{4} \\ &= \sqrt{9} + \sqrt{4} \\ &= 3 + 2 \\ &= 5 \end{aligned}$$


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- (c)** Sum of ages of the captain and the youngest player
 = $[(28 \times 11) - (25 \times 3) + (28 \times 3) + (30 \times 3)]$ years
 = $(308 - 249)$ years
 = 59 years
 Let the age of the youngest player be x years.
 Then, age of the captain = $(x + 11)$ years
 $\therefore x + (x + 11) = 59$
 $\Rightarrow 2x = 48$
 $\Rightarrow x = 24$

So, the age of captain is

$$\begin{aligned} &= (x + 11) \\ &= (24 + 11) \\ &= 35 \text{ years} \end{aligned}$$

7. **(b)** Let one digit of the number be x , then its ten's digits will be $(8-x)$.

$$\begin{aligned} \text{So, given number} &= 10(8-x) + x \\ &= 80 - 10x + x \\ &= 80 - 9x \end{aligned}$$

Now if digits are reversed, then Number obtained

$$\begin{aligned} &= 10x + (8 - x) \\ &= 10x + 8 - x \\ &= 9x + 8 \end{aligned}$$

According to question

$$(80 - 9x) + 18 = 9x + 8$$

$$98 - 9x = 9x + 8$$

$$90 = 18x$$

$$x = 5$$

$$\Rightarrow \text{given number} = 80 - 9x$$

$$= 80 - 9 \times 5$$

$$= 80 - 45$$

$$= 35$$

\therefore the number is 35

8. **(b)** Let us assume length of pole is L .

$$\text{Length of the pole in Mud is} = L \times \frac{4}{7} = \frac{4L}{7}$$

$$\text{Length of the Pole which is pulled out} = L \times \frac{1}{3} = \frac{L}{3}$$

Length of the pole is still in mud = Length of the pole in Mud - Length of the Pole which is pulled out

$$\text{Length of the pole is still in mud} = \frac{4L}{7} - \frac{L}{3}$$

According to question,

$$\text{Length of the pole is still in mud} = 250$$

$$\frac{4L}{7} - \frac{L}{3} = 250$$

$$\frac{(4L \times 3 - L \times 7)}{7} \times 3 = 250$$

$$12L - 7L = 250 \times 21$$

$$5L = 250 \times 21$$

$$L = 250 \times \frac{21}{5}$$

$$L = 50 \times 21$$

$$L = 1050$$

9. **(d)** Let us assume $2^x = 3^y = 6^{-z} = a$

$$\text{now } 2^x = a$$

$$a^{\frac{1}{x}} = 2$$

$$\text{Similarly, } a^{\frac{1}{y}} = 3$$

$$\text{and } a^{\frac{1}{-z}} = 6$$

Now we start by simplifying $a^{\frac{1}{-z}} = 6$

$$a^{-z} = 3 \times 2$$

$$\text{but } a^{\frac{1}{x}} = 2 \text{ and } a^{\frac{1}{y}} = 3$$

$$\text{Therefore, } a^{\frac{1}{-z}} = a^{\frac{1}{x}} \times a^{\frac{1}{y}}$$

$$a^{\frac{1}{-z}} = a^{\frac{1}{x} + \frac{1}{y}}$$

As the base on both sides are same we compare powers and equate them

$$\frac{1}{-z} = \frac{1}{x} + \frac{1}{y}$$

$$\frac{1}{x} + \frac{1}{y} + \frac{1}{z} = 0$$

10. **(d)** Let the maximum marks be ' x '.

Then, according to the question.

$$(25 \% \text{ of } x) + 30 = (50 \% \text{ of } x) - 20$$

$$\Rightarrow \frac{x}{4} + 30 = \frac{x}{2} - 20$$

$$\Rightarrow \left(\frac{x}{4}\right) - \left(\frac{x}{2}\right) = -20 - 30$$

$$\Rightarrow \frac{(x - 2x)}{4} = -50$$

$$\Rightarrow -\frac{x}{4} = -50$$

$$\Rightarrow -x = -200$$

$$\Rightarrow x = 200$$

So, the maximum marks are 200.

$$\text{Minimum passing marks are} = \frac{x}{4} + 30$$

$$= \frac{200}{4} + 30$$

$$= 50 + 30$$

$$= 80 \text{ marks}$$

Minimum passing marks are 80.

$$\text{Passing \%} = \left(\frac{80}{200}\right) 100\% = 40\%$$

11. **(c)** Let the error be W gms.

$$\text{Then, } [W / (1000 - W)] \times 300 = \frac{300}{47}$$

$$\Rightarrow W / (1000 - W) = 3 / 47$$

$$47 \times W = 3000 - 3 \times W$$

$$\Rightarrow W = 60$$

So, he uses a weight = $(1000 - 60)$ gm = 940 gms for 1 kg.

12. **(a)** First sum divide into :

$$4 : 3 : 2 : 1$$

$$= 10$$

$$\text{Naresh : Vipin : Bhupesh : Yogesh}$$

$$\text{Second sum divide in} = 5 : 6 : 7 : 8 = 26$$

$$\text{Second Sum} = 2 \times \text{first}$$

$$(4 : 3 : 2 : 1) = 10 \times 13 = 130 \times 1 = 130$$

$$(5 : 6 : 7 : 8) = 26 \times 5 = 130 \times 2 = 260$$

$$\text{Largest total} = \frac{130}{10} \times 4 = 52 = \text{naresh}$$

$$= \frac{260}{26} \times 5 = 50 = \text{Naresh}$$

$$= \text{total} = 52 + 50 = 102$$

Hence, Largest total is received by Naresh

13. (c) For management A receive = Rs. 960
 Balance Amount = Rs. (9600 - 960) = Rs. 8640
 Ratio of their investment = 12000 : 20000 = 3 : 5

∴ A's share = Rs. 8640 x (3/8) = Rs. 3240
 So, A receive = Rs. (3240 + 960) = Rs. 4200



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14. (b) According to question, we have
 $[(100 \times 35) + (200 \times 5)]$ men can finish the work in 1 day.
 4500 men can finish the work in 1 day.
 100 men can finish work = $\frac{4500}{100} = 45$ days
 This is 45 - 40 = 5 days behind schedule.

15. (d) Let work done by 1 man in a day = x
 Work done by 1 woman in a day = y
 $4x + 6y = \frac{1}{8}$
 $3x + 7y = \frac{1}{10}$
 Solving above equations, we get $x = \frac{11}{400}$ and $y = \frac{1}{400}$
 Work of 10 women = $10 \left(\frac{1}{400}\right) = \frac{1}{40}$

So 10 women will complete the work in 40 days.

16. (b) Let the filled capacity of the tank $x \text{ m}^3 / \text{Minute}$
 Then emptied capacity of the tank = $(x + 10) \text{ m}^3 / \text{Minute}$
 $\therefore \frac{2400}{x} - \frac{2400}{x+10} = 8$
 $= 2400 \left(\frac{10}{x(x+10)}\right) = 8$
 $= x(x + 10) = 3000$
 $x = 50 \text{ m}^3 / \text{Minute}$

17. (c) let V be the speed and T be the time taken to cover the distance.
 $(V + 4) \left(T - \frac{1}{2}\right) = (V - 2) \left(T + \frac{1}{3}\right)$
 On solving, we get
 $V = 20 \text{ km/hr}$ and $T = 3 \text{ hours}$.
 The distance = $VT = 60 \text{ km}$.

18. (b) Let the length of the bridge be x metres and length of the first train at 90 km/hr be y metres
 Then $(x + y) = \left[\left(90 \times \frac{5}{18}\right) \times 36\right] \text{ m} = 900 \text{ m}$
 The second train crosses the bridge by covering distance of $[x + (y - 100)] \text{ m}$ at the rate of 45 km/hr
 $12.5 \text{ m/sec} \cdot 800 \text{ m} \text{ at } 12.5 \text{ m/s} \therefore x + y = 900 \text{ m}$

Time taken by the second train to cross the bridge = $\frac{800}{12.5} \text{ sec} = 64 \text{ seconds}$

19. (b) Speedy Mun = kmph
 Down Stream Speed = $R + 2 \text{ kmph}$
 Up Stream Speed = $R - 2 \text{ kmph}$
 $\frac{20}{x+2} + \frac{20}{x-2} = \frac{110}{60}$
 $\frac{1}{x+2} + \frac{1}{x-2} = \frac{11}{120}$
 $\frac{2x}{x^2-4} = \frac{11}{120}$

By Option Method

Option (b) 22kmph

$$\frac{44}{484-4} = \frac{11}{120}$$

$$\frac{11}{120} = \frac{11}{120}$$

$$= 22 \text{ kmph}$$

20. (b) Quantity of alcohol in the mixture = $100 \times \frac{35}{100} = 35 \text{ g}$
 water = 65 g
 25g water added then mixture becomes = $100 + 25 = 125 \text{ g}$
 New percentage of alcohol in the mixture = $\frac{35}{125} \times 100\% = 28\%$

21. (a) $\text{Rate}\% = \frac{100}{\text{number of times the annual rent}}$
 $= \frac{100}{40} = 2.5\%$

22. (c) let the sum is x and compound interest rate is y %, then $x \times y \times \frac{y}{100} \times 100 = 1.44x$ or $y^2 = 14400$ or $y = 120$ it means the sum will become 120 % in one year so interest rate = 20 %, so 5 years are required.

23. (d) Let ABCD be the rhombus.
 Given AC = 30m
 BD = 40m
 Diagonals of a rhombus are perpendicular bisectors of each other.

$$OB = \frac{1}{2}BD = \frac{1}{2} \times 40 = 20 \text{ m}$$

$$OC = \frac{1}{2AC} = \frac{1}{2} \times 30 = 15m$$

OCB is a right triangle.

$$BC_2 = OC_2 + OB_2 \quad [\text{Pythagoras theorem}]$$

$$BC_2 = 15_2 + 20_2$$

$$BC_2 = 225 + 400$$

$$BC_2 = 625$$

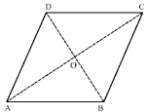
Taking square root on both sides

$$BC = 25m$$

So side of a rhombus, a = 25m.

$$\text{Perimeter} = 4a = 4 \times 25 = 100m$$

Hence the perimeter of the rhombus is 100m.




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24. (a) Let r = radius of the base.

$$\text{Give area} = 346.5$$

$$\pi \times r^2 = 346.5$$

$$r^2 = 346.5 \times \frac{7}{22} = \frac{441}{4}$$

$$r = \frac{21}{2}$$

$$l = \sqrt{r^2 + h^2} = \sqrt{\frac{441}{4} + 14^2}$$

$$l = \frac{35}{2}m$$

The area of canvas = surface area of the cone = $\pi rl =$

$$\pi \times \frac{21}{2} \times \frac{35}{2} m^2 = \frac{33 \times 33}{2} m^2$$

Given length of canvas = 1.1 m

Let Width = x

$$\text{Area of canvas} = 1.1 x$$

$$\text{So, } 1.1 x = \frac{33 \times 33}{2}$$

$$x = \frac{33 \times 33}{2 \times 1.1} = 525 m$$

25. (b) The weight of the iron pipe is 107.86 kg "

Given, interior and exterior diameters of the pipe are 10 cm and 12 cm respectively.

$$\text{Then interior radius} = \frac{10}{2} \text{ cm} = 5 \text{ cm}$$

$$\text{and exterior radius} = \frac{12}{2} \text{ cm} = 6 \text{ cm}$$

Therefore, the total surface area of the pipe

$$= \pi (6^2 - 5^2) cm^2$$

$$= \pi (36 - 25) cm^2$$

$$= \left(\frac{22}{7}\right) \times 11 cm^2$$

$$= \frac{242}{7} cm^2$$

$$= \frac{242}{70000} m^2$$

$$= \frac{121}{35000} m^2$$

Then the volume of the pipe

$$= \text{total surface area} \times \text{length of the pipe}$$

$$= \frac{121}{35000} \times 4 m^3$$

$$= \frac{121}{8750} m^3$$

Therefore, the weight of the iron pipe

$$= \text{volume} \times \text{weight per cubic metre}$$

$$= \frac{121}{8750} \times 7800 kg$$

$$= 107.86 kg$$

26. (b) Let say Race D m

A run D m

B runs D-15 m

C runs D-29 m

B runs D-15 m > C runs D-29 m

$$\Rightarrow B \text{ runs } 1m \Rightarrow C \text{ runs } \frac{(D-29)}{9D-15} m$$

$$\Rightarrow B \text{ runs } Dm \Rightarrow C \text{ runs } D(D-29)/(D-15) m$$

B wins by 15 meters $\Rightarrow C \text{ runs} = D-15 m$

Equate C run

$$D-15 = D(D-29)/(D-15)$$

$$\Rightarrow D^2 - 30D + 225 = D^2 - 29D$$

$$\Rightarrow D = 225$$

$$\text{Length} = 225 m$$

27. (b) Time = 15 minutes past 5

$$\text{Angle} = \theta = \left| \frac{60 \times \text{hour} - 11 \times \text{minute}}{2} \right|$$

$$\text{And another angle} = (360^\circ - \theta)^\circ$$

$$\therefore \theta = \left| \frac{60 \times 5 - 11 \times 15}{2} \right|$$

$$= \left| \frac{300 - 165}{2} \right|^\circ$$

$$= \left(\frac{135}{2}\right)^\circ$$

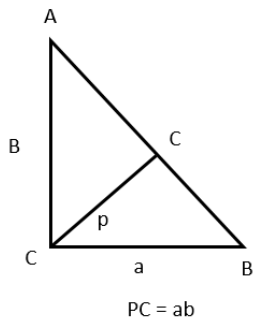
$$= 67.5$$

And another angle = $(360 - \theta)^\circ = (360 - 67.5)^\circ = 292.5^\circ$

Hence, $67 \frac{1}{2}^\circ$ is the correct answer.

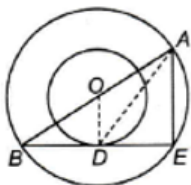
28. (d) 2nd term = (1st term) $\times 1 + 1 = 15 \times 1 + 1 = 16$.
 3rd term = (2nd term) $\times 2 + 2 = 16 \times 2 + 2 = 34$
 4th term = (3rd term) $\times 3 + 3 = 34 \times 3 + 3 = 105$.
 5th term = (4th term) $\times 4 + 4 = 105 \times 4 + 4 = 424$
 6th term = (5th term) $\times 5 + 5 = 424 \times 5 + 5 = 2125$
 6th term should be 2125 instead of 2124.

29. (a)



Let $CD \perp AB$. Then, $CD = p$
 \therefore Area of $\triangle ABC = \frac{1}{2}(\text{base} \times \text{Height})$
 $= \frac{1}{2}(AB \times CD) = \frac{1}{2}cp$
 Also, of $\triangle ABC = \frac{1}{2}(BC \times AC) = \frac{1}{2}ab$
 $\therefore \frac{1}{2}cp = \frac{1}{2}ab$
 $= cp = ab$

30. (c) Produce BD to meet the bigger circle at E. Join AE. Then
 $\angle AEB = 90^\circ$ [Angle in a semicircle]
 $OD \perp BE$
 [BE is tangent to the smaller circle at D and OD is its radius]
 $BD = DE$ [BE is a chord of the circle and $OD \perp BE$]
 $OD \parallel AE$ [$\angle AEB = \angle ODB = 90^\circ$]
 In triangle AEB O and D are mid-points of AB and BE.
 Therefore, by mid-Point theorem, we have



$OD = \frac{1}{2}AE$
 $= AE = 2 \times 8 = 16 \text{ CM}$
 In $\triangle ODB$, we have
 $OB^2 = OD^2 + BD^2$ (By Pythagoras theorem)

$= 169 = 8^2 + BD^2$
 $BD^2 = 169 - 64 = 105$
 $BD = \sqrt{105} \text{ CM}$
 $DE = \sqrt{105} \text{ CM}$ ($\because BD = DE$)
 In $\triangle AED$. We have,
 $= AD^2 = AE^2 + ED^2$ (By Pythagoras theorem)
 $= AD^2 = 16^2 + (\sqrt{105})^2$
 $= 256 + 105 = 361$
 $= AD = 19 \text{ cm}$

31. (c) Given, $2 \sin^2 \theta + 3 \cos^2 \theta$
 $= 2 - 2 \cos^2 \theta + 3 \cos^2 \theta$
 $= 2 + \cos^2 \theta$
 Since we know that $-1 \leq \cos \theta \leq 1$ then $0 \leq \cos^2 \theta \leq 1$,
 So, minimum value of $\cos^2 \theta = 0$
 Hence, minimum value of $2 \sin^2 \theta + 3 \cos^2 \theta = 2$
32. (d) Let a be the first term and d be the common difference.
 m^{th} term of an A.P is $\frac{1}{m}$.
 $a_m = a + (m - 1)d$
 $= a + md - d = \frac{1}{m}$ (i)
 n^{th} terms of an A.P is $\frac{1}{n}$
 $= a_n = a + (n - 1)d$
 $= a + nd - d = \frac{1}{n}$ (ii)
 Subtract (ii) from (i), we get
 $d = \frac{1}{mn}$
 Put $d = \frac{1}{mn}$ in equation (i), we get
 $a = \frac{1}{mn}$
 To find mn^{th} term.
 $a_{mn} = a + (mn - 1)d = \frac{1}{mn} + (mn - 1)\frac{1}{mn} = 1$
33. (b) If the points are collinear the slope will be same
 $\therefore \frac{2t - 6}{t + 2} = \frac{6 - 1}{-2 - 3}$
 $= 15t = 20$
 $= t = \frac{4}{3}$

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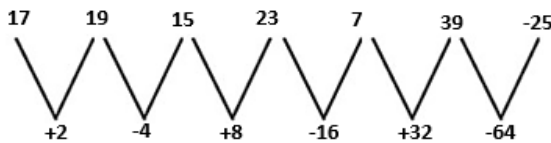
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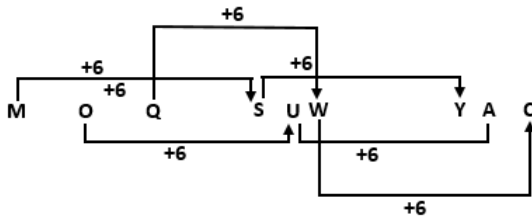
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34. (c) is the correct answer



-25

35. (c) is the correct answer



Ist letter of each word increased by 6 Letter

36. (d) a b c c b a b ca a cb

37. (d) $210 \rightarrow (15)^2 - 15$

$3807 \rightarrow (20)^2 - 20$

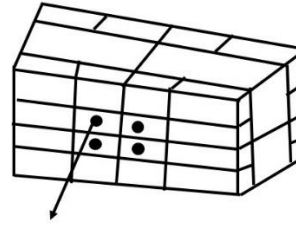
Similarly 182 :

$(14)^2 - 14$ $(19)^2 - 19 = 342$

38. (b) Second denotes the function performed by the first sift.

39. (d) February, March, November are the same 1st month in 2021 while December is not.
December

40. (c) Total Cube



One side colored cubes are only from small size identical cubes &

Only from 2 surfaces as shown in the figure.

41. (c) SOLACE cannot be made bcz of "E"

42. (d) $\Rightarrow 36 \times 12 + 4 \div 6 + 2 - 3 =$

$\Rightarrow 36 - 12 \div 4 + 6 \div 2 \times 3 =$

$\Rightarrow 36 - 3 + 3 \times 3 =$

$\Rightarrow 36 - 3 + 9 =$

$\Rightarrow 36 + 6$

$\Rightarrow 42$

43. (a) $H > P \leq E < L = R < V \leq F$

(I) $F > E$: -True

(II) $H > R$: - Not true because opposite symbol are available between H & R in the statement.

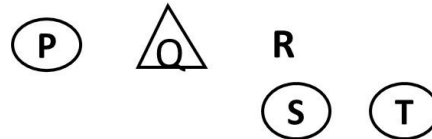
44. (d) is the correct answer

	GAME	SUBJECT
A	Football	Maths
B	Football	Maths
C	Cricket	Chemistry, Biology
D	Boxer	Maths, Account

Football player \rightarrow physics

45. (d) Male $\rightarrow \Delta$

Female $\rightarrow 0$



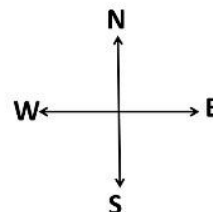
46. (b) il be pee \rightarrow roses are blue

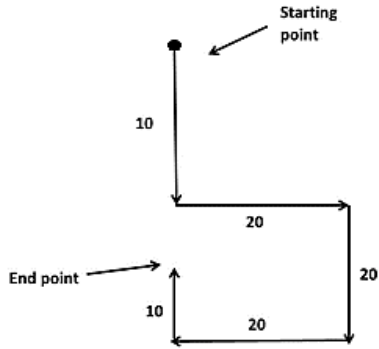
Sik hee \rightarrow red Flowers

Pee mit hee \rightarrow flowers are vegetables

\rightarrow Flowers are common in 2nd & 3rd line so code of flowers will be "hee" so code of red mist be sik, = Sik

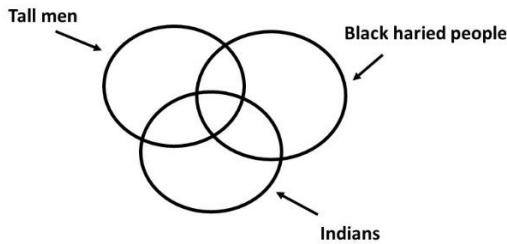
47. (a) is the correct answer



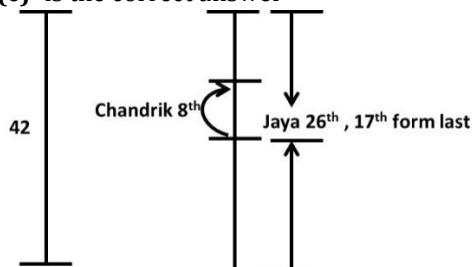


Now she is moving in North direction.

48. (d) is the correct answer

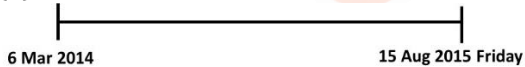


49. (c) is the correct answer



From the last chandrika is $(17+8)=25^{th}$

50. (b) is the correct answer



March April May June July Aug
 $= 25 + 30 + 31 + 30 + 31 + 15$
 $= \frac{162}{7} = 1 \text{ Remainder}$

So, Friday-1=Thursday

51. (b) C R E A T I V E

- 1. CE
- 2. AE
- 3. TV

52. (c) 1. B7C

1. D9Z

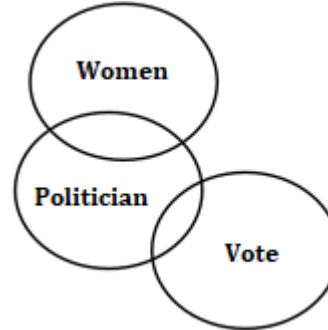
53. (a) Arrival → Introduction → Presentation → Discussion → Recommendation = CEADB

54. (d) Statement I → $8 < a < 11$, so "a will be 9, 10
 II → $7 < B < 10$. SO "b' Will Be 8 or 9

If the data in statement I and statement II together are not sufficient to answer the question.

55. (c) $100\% \rightarrow 120 \text{ Lakh.}$
 $\Rightarrow D = 0.5\%$
 $\Rightarrow 100\% \rightarrow 120$
 $\Rightarrow 1\% \rightarrow \frac{120}{100} = \frac{6}{5}$
 $\Rightarrow 0.5\% \rightarrow \frac{6}{5} \times \frac{1}{2} = \frac{3}{5} \text{ Lakh.} = 60,000 \text{ Rs.}$
 $\Rightarrow \text{It is increased to RS 2.4 lakh}$
 $\Rightarrow \% \text{ increase} = \frac{1,80,000}{60,000} \times 100\% = 300\%$

56. (b) is the correct answer



Con (I) ⇒ Male is not available in the statement so it is wrong

Con (II) ⇒ Some politicians can vote.

It neither I nor II conclusion follows.

57. (a) According to the statement only those who tackle situations bravely achieve success. So (I) follows. However II is vague with regard to the given statement and so does not follow.

Only conclusion I follows

58. (c) A is true but R is false because There is a partial Vaccum in the electric bulb.

A is true but R is false.

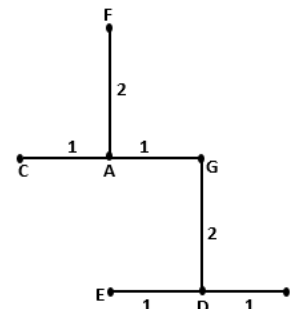
59. (b) is the correct answer



60. (c) 124

$16+14+13+12+20+18+18+13=124$ in history

61. (c) is the correct answer





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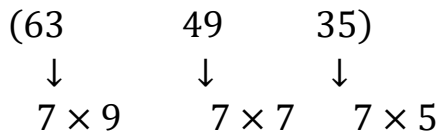
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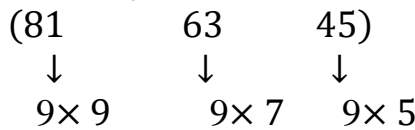


$$FD = \sqrt{4^2 + 1^2} = \sqrt{17}$$

62. (d) is the correct answer



Similarly



= 81, 63, 45

63. (b) First is a colour obtained by the combinations of other two colours.

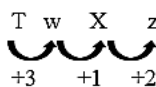
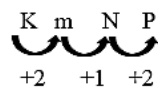
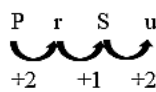
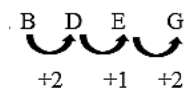
Green: Blue: yellow

64. (c) Second is a more intense From the first
Love: Passion

65. (d) Sum of digit are same except 8793

- 5 + 6 + 9 + 8 = 28
 - 7 + 8 + 9 + 4 = 28
 - 9 + 8 + 6 + 5 = 28
 - 8 + 7 + 9 + 3 = 27
- = 8793

66. (d) is the correct answer



= TwXz

67. (c) Hence Answer c
68. (d) Venerate – regard with respect
Abuse – use something for a bad purpose
Accuse – charge someone with an offence or crime
Defame – damage the good reputation of someone
Respect – a feeling of deep admiration for someone
69. (a) Audacious – bold, daring
Cowardly – lacking courage
Manifest – clear or obvious to the eye
Obvious – easily perceived or understood, self – evident, apparent
Venture – a risky or daring journey
70. (a) Explanation-he correct answer is 'by'. 'by' is the most appropriate preposition to fill in the blank as 'by your watch' has the idiomatic meaning of "according to".
71. (b) Capable – having the ability
Fit – suitable
Fit of anger – display a very bad temper
Qualified – officially recognized as being trained to perform a particular job
72. (b) Citizen – national, native
Cosmopolitan – having an international sophistication
Denizen – inhabitant, resident of a place
Metropolitan – relating to or denoting a large city
73. (d) Under a cloud – under suspicion
74. (a) Trifle-a thing of little value or importance.
Twinkling-shining with a gleam that changes from bright to faint
Useless-not fulfilling or not expected to achieve the intended purpose or desired outcome, /having no ability or skill in a specified activity or area
Vague- not clear, ambiguous.

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75. (b) Hence Answer b
76. (d) Expl- Obj+ was / were+v3+ subj (of the main sentence)
77. (c) Exp- 'must' is change to 'had to' in indirect speech with V1 form.
78. (c) Explanation- We can easily eliminate all past tenses and perfect tenses.
79. (a) Correct Answer is-Is it not what you wanted?
In these kinds of questions, we always start with helping verbs. Basic elimination with help of the given options can help find the correct answer.
80. (b) -Man is supposed to spread humanity and so is flower is supposed to spread fragrance.
81. (c) And this for the simple reason that in a democratic setup like India, majority communalism can acquire power far beyond that any minority communalism can.
R and Q are a pair and P should be the closing statement here.
82. (d) She is not one of those so foolish. 'Who is' is superfluous here.
Subordinating conjunctions (Who, whom) are words or phrases that introduce dependent clauses in a sentence. But, the above sentence is not a dependent clauses. (not introducing new clause either)
83. (c) Principle – a fundamental law
To agree in principle – to accept the general terms or conditions of a deal
84. (c) Hence answer c
85. (b) Indulge – to allow yourself to do something for pleasure

Deny – to refuse

Infringe – to break a rule

86. (b) – responding too readily to something new or stimulating

Calm – tranquil, quiet, serene

Exquisite – extremely beautiful

Delicate – exquisite, fragile

Numb – deprived of power of physical sensation

Active – energetic, mobile

Obnoxious – extremely unpleasant

Free – at liberty

87. (b) - Preposition 'For' -POT- period of time and Since-point of time.

Exam- For two hours, years, and since Monday, Since 1980 etc.

88. (c) Explanation- It's a passive sentence so being will be used and frightened is mostly followed by "of".

89. (a) Amnesty – An official pardon for the people who have been convicted of political offences

Excuse – a reason or explanation given to justify a fault or offence

Pardon – forgiveness

90. (b) Explanation- All at sea-perplexed, puzzled, baffled, bemused

91. (b) Explanation- Fits and starts-irregularly, sporadically, erratically.

92. (a) It should be-CURRICULAR instead of – curriculer.

93. (d) Passive structure-Objective case of who is whom.
By whom + be verb + object + verb 3rd form+?

94. (c) -The tenses of direct speech do not change if the reporting verb is in future tense or present tense. So, c is the answer.(Also, The third person of direct speech doesn't change.)

95. (a) Will be / Shall be is used in future continuous tense. Hence, a is answer.

96. (c) There are three routes of development.

Explanation-Starting sentence will be IV followed by II. So, C is the only choice.

97. (c) LIQUEFY – make or become liquid

Petrify – change into a stony substance

Blend – to mix; Separate – unconnected, distinct

Melt – liquefy; Freeze – turn into ice or another solid

Soften – make or become soft; frighten – scare, alarm

98. (c) In the given question, P cannot be the starting statement and SQ is a pair and so is QR. So C seems a better option.

The only hopeful sign in such a situation is that there is an increasing tendency among ordinary people to see health as a right and responsibility

99. (c) Expressions such as coupled with, as well as, along with, together with, not to mention, and others do not act as coordinating conjunctions. Therefore, when you use these expressions to join one singular subject of a sentence with another noun or pronoun,

you do not form a plural subject. The verb should appear in the singular.

100. (d) Still – motionless; even now, yet
Quiet – silent, making little or no noise
Quietly – silently
Sit out – not take part in a particular event or activity



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