**PAPER – II**
GENERAL APTITUDE TEST

1. In answering a quiz, 'no' counts –1, 'yes' counts +1 and 'don't know' counts 0 (zero). What is the average value of 5 no's, 15 yes's and 5 don't know's ?
   (a) 0.04   (b) 0.4   (c) 4.0   (d) 40

2. Choose the one from the following which is different from the other according to some rule ?
   Copper, Zinc, Brass, Iron
   (a) Zinc   (b) Copper   (c) Iron   (d) Brass

3. Which word can be formed from the letters of the following word ?
   VENTURESOME
   (a) ROSTRUM   (b) TRAVERSER   (c) SERMON   (d) SEVENTEEN

4. F is the brother of A. C is the daughter of A. K is the sister of F. G is the brother of C. Who is the uncle of G ?
   (a) A   (b) C   (c) F   (d) K

5. The angle between the minute hand and the hour hand of a clock when the time is 4:20 is
   (a) 5°   (b) 10°   (c) 20°   (d) 0°

6. The area of the largest circle which can be drawn inside a rectangle with sides 18 cms and 14 cms, is
   (a) 49 cm^2 (b) 154 cm^2 (c) 378 cm^2 (d) 1078 cm^2

7. In a Queue, A is eighteenth from the front while B is sixteenth from the end. If C is twenty-fifth from the front and is exactly in the middle of A and B, then how many persons are there in the Queue ?
   (a) 47   (b) 46   (c) 45   (d) 48

8. A man in a train notices that he can count 21 telephone posts in one minute. If every two adjacent posts are 50 metres apart, at what speed is the train moving ?
   (a) 55 km/hr   (b) 57 km/hr   (c) 60 km/hr   (d) 63 km/hr

9. If in a certain code 'DOWN' is written as '3 @ 9 #' and 'NAME' is written as '# 6 % 5', how is 'MODE' written in that code ?
   (a) % 6 5 3   (b) % @ 3 #   (c) 6 % 5 3   (d) % @ 3 5

10. Two positions of a dice are shown below. Identify the number at the bottom when the number at the top is '3'.
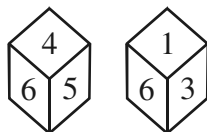
   (a) 2   (b) 4   (c) 5   (d) None of these

11. The following chart shows the percentage of expenditure incurred in agriculture, transport and other sectors of economy in a certain year. If the total expenditure in agriculture is 150 crore, then expenditure in transport is
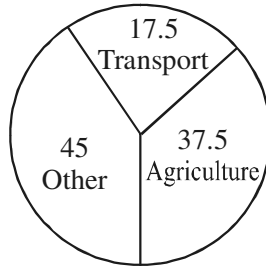
(a)   70 crore   (b)   60 crore   (c)   40 crore   (d)   120 crore

12. The following table gives the number of persons with different incomes in a country in a certain year

| Income (in thousand units)	0-1	1-2	2-3	3-5
No. of persons (in lakhs)	13	90	81	117

What is the average income per head (in thousand units) ?

(a)   26.9   (b)   2.69   (c)   16.9   (d)   3.96

13. An inspector rejects 0.08% of the metres as defective. How many will be examined to reject 2 metres ?

(a)   1500   (b)   2000   (c)   2500   (d)   3500

14. The ratio of the volume of a cube to that of the biggest sphere which will fit inside the cube is

(a) $4 : \pi$ (b) $4 : 3\pi$ (c) $2 : \pi$ (d) $6 : \pi$

15. Which of the following is <u>NOT</u> associated with non-verbal communication ?

(a)   Body language   (b)   Conversation
(c)   Facial expression   (d)   Symbol

16. One, who believes that all things and events in life are predetermined, is a/an

(a)   fatalist   (b)   puritan   (c)   egoist   (d)   tyrant

17. If 8th December, 2007 was Saturday, which day of the week was 8th December, 2006 ?

(a)   Saturday   (b)   Friday   (c)   Monday   (d)   Tuesday

18. Which of the following diagrams best indicates the relation among Profit, Dividend and Bonus ?

(a)   (b)   (c)   (d)

19. What is the ratio of the areas of inscribed and circumscribed circles of a square ?

(a) $1 : 2$
(b) $\sqrt{2} : 1$
(c) $\sqrt{2} : \sqrt{3}$
(d) $\sqrt{3} : 1$

20. If $x + y + z = 13$, then what is the maximum value of $(x - 2)(y + 1)(z - 3)$?

(a) 25
(b) 30
(c) 54
(d) 27

21. Kittu is in between Mohan and Sohan. Raju is to the left of Sohan and Shyam is to the right of Mohan. If Sohan is sitting to the left of Mohan and all are sitting facing North, then who is on the extreme right ?

(a) Kittu
(b) Mohan
(c) Sohan
(d) Shyam

22. A man walks 15 m towards South from a fixed point. From there he goes 12 m. towards North and then 4 m towards West. How far and in which direction is he from the fixed point ?

(a) 3 m South
(b) 7 m South-West
(c) 5 m South-West
(d) 5 m South-East

23. Pointing to a woman in a photograph, a man says, "her mother's mother is the mother of my father." How is the man related to the woman in photograph ?

(a) Uncle
(b) Maternal cousin
(c) Grand son
(d) None of these

24. What is the total number of triangles in the figure given below ?
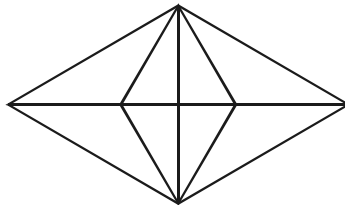
(a) 16
(b) 18
(c) 24
(d) None of these

25. The sum of seven consecutive natural numbers is 1617. How many of these are prime numbers ?

(a) 1
(b) 2
(c) 3
(d) 4

26. If $\dfrac{p}{q} = \dfrac{3}{11}$, then $\dfrac{22\,p - 34\,q}{33\,p - 3q}$ is equal to

(a) $- 16/3$
(b) $- 18/3$
(c) $- 15/3$
(d) $- 14/3$

27. In an imaginary language, the digits 0, 1, 2, 3, 4, 5, 6, 7, 8, 9 are substituted by a, b, c, d, e, f, g, h, i, j. If 10 is written as ba, then the value of $[dc \times f - (bf - d) \times d]$ is equal to

(a) bcf
(b) bce
(c) bea
(d) bba

28. How many times 2 will appear in the prime factorization of the product 1×2×3×4×....×50 ?

(a) 47
(b) 48
(c) 50
(d) None of these

29. Six persons P, Q, R, S, T and U are sitting in a circle facing one another. P is sitting in front of Q; Q is sitting to the right of T and left of R; P is sitting to the left of U and right of S. Who is sitting opposite to R ?
    (a) U   (b) T
    (c) R   (d) Cannot be determined.

30. **Statements :** All books are leaves. Some leaves are jungles. No jungle is a box.
    Conclusions : I.   Some jungles are books.
                     II. No book is a box.
                     III. Some leaves are boxes
    (a) Only I follows (b) Only II follows (c) Only III follows (d) None follows

31. If the following words are arranged in alphabetical order, which word will come in the middle ?
    Electric, Elector, Elect, Election, Electrode
    (a) Elector   (b) Electric   (c) Election   (d) Electrode

32. A man is performing yoga with his head down and legs up. His face is towards the west. In which direction will his left hand be ?
    (a) East   (b) West   (c) North   (d) South

33. A batsman in his 20th innings makes a score of 110 and thereby increases his average by 4. What is his average after 20th innings ?
    (a) 30   (b) 34   (c) 36   (d) 43

34. How many meaningful English words can be formed by using the letters of the word 'ALEP' ?
    (a) 1   (b) 2   (c) 3   (d) More than 3

35. A is the brother of B. C is the brother of A.
    To establish relationship between B and C, which of the following information(s) is(are) required ?
    (i) Gender of C   (ii) Gender of B
    (a) Either (i) or (ii)   (b) Both (i) and (ii)
    (c) Only (i)   (d) Only (ii)

36. Arrange the following words in a logical and meaningful order :
    1. Poverty   2. Population   3. Death   4. Unemployment   5. Diseases
    (a) 2, 1, 4, 3, 5   (b) 2, 4, 1, 5, 3   (c) 1, 4, 2, 5, 3   (d) 1, 2, 3, 4, 5

37. Which among the following :
    1. ×, =, ÷   2. =, ÷, ×   3. =, ×, ÷   4. ÷, =, ×

    Appropriately replaces ⊛, ⊕ and ⊙ respectively in 90 ⊛ 6 ⊕ 8 ⊙ 2 ?
    (a) 1   (b) 2   (c) 3   (d) 4

38. Two pipes can fill a tank in 10 hours and 12 hours respectively while the third pipe empties the tank in 20 hours. If all the three pipes operate simultaneously, in how much time will the tank be filled ?
(a) 7 hours 30 minutes   (b) 7 hours
(c) 6 hours 30 minutes   (d) 2 hours

39. The difference between yearly simple interest and compound interest reckoned half yearly on ₹ 1,200 for one year at 10% per annum is
(a) ₹ 2.50   (b) ₹ 3.00   (c) ₹ 4.00   (d) ₹ 6.00

40. A motorboat whose speed in still water is 15 km/hr, goes 30 km downstream and comes back in 4 hrs and 30 minutes. The speed of the stream (in km/hr) is
(a) 10   (b) 6   (c) 5   (d) 4

41. Aarti is older than Saumya. Muskan is elder to Aarti but younger than Kashish. Kashish is older than Saumya. Saumya is younger than Muskan. Gargi is the eldest. Who is the youngest ?
(a) Saumya   (b) Kashish   (c) Aarti   (d) Muskan

The pie-chart given below shows the distribution of land in a state under various food crops. Study the chart and answer the question numbers **42** to **45**.
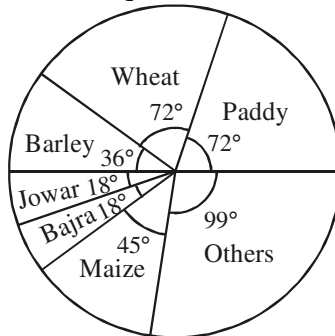
42. Which combination of crops represents the 50% of the total area of land under food crops ?
(a) Wheat, Barley and Jowar   (b) Paddy, Wheat and Jowar
(c) Paddy, Wheat and Barley   (d) Bajra, Maize and Paddy

43. If the total area under Jowar was 1.5 million acres, then what is the area (in million acres) under Paddy ?
(a) 4.5   (b) 6.0   (c) 7.5   (d) 9.0

44. If the production of Wheat is six times that of Barley, then what is the ratio between the yield per acre of Wheat and Barley ?
(a) 2 : 1   (b) 2 : 3   (c) 3 : 2   (d) 3 : 1

45. If the total area under crops goes up by 25% and the area under Wheat production goes up by 12.5% of the current area, what will be the angle pertaining to Wheat crop in the new pie-chart ?
(a) 76.8°   (b) 72°   (c) 64.8°   (d) 62.4°

46. The number of rectangles/squares in the rectangle

is

(a) 18 (b) 17 (c) 16 (d) None of these

47. The digit at unit place of 17^{17} is

(a) 1 (b) 3 (c) 7 (d) 9

48. The digit '3' can be written in 3 ways as follows :

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

(order of addition of numbers is not important)

According to the above, in how many ways 5 can be written using digits less than or equal to 5 ?

(a) 8 (b) 7 (c) 6 (d) 5

49. 'Zero' is

(a) an even integer (b) an odd integer
(c) neither even nor odd (d) even and odd both

50. Two words are given : NOT and TONE. These words represent some numbers, if we add them, we get the number 9000 i.e.

$$
\begin{array}{r}
N\ O\ T \\
+\ T\ O\ N\ E \\
\hline
9\ 0\ 0\ 0
\end{array}
$$

Which number will be represented by the word NET ?

(a) 264 (b) 673 (c) 246 (d) 628

Directions for answering question numbers from 51 to 56.

The following questions consist of two statements : one as 'Assertion (A)' and the other as 'Reason (R)'. Examine these carefully and select the correct answer from the codes given below :

I. Both (A) and (R) are true and (R) is the correct explanation of (A).
II. Both (A) and (R) are true, but (R) is not the correct explanation of (A).
III. (A) is true, but (R) is false.
IV. (A) is false, but (R) is true.

51. **Assertion (A) :** Economic justice is concerned with giving all the members of society a fair share.

Reason (R) : The possible criteria of distribution are equity, equality and need.

(a) I (b) II (c) III (d) IV

52. **Assertion (A) :** 'Grapes are sour' attitude is an example of defense mechanism in psychology.

   Reason (R) : Rationalisation can be used to avoid admitting disappointment.

   (a) IV   (b) III   (c) II   (d) I

53. **Assertion (A) :** India is world's second most populous country.

   Reason (R) : The problem of unemployment is increasing with the increase in population in India.

   (a) I   (b) II   (c) III   (d) IV

54. **Assertion (A) :** There is no difference between 'policy making' and 'decision making'.

   Reason (R) : Policy refers to the formulation of a particular plan or course of action by the government or an organization.

   (a) I   (b) II   (c) III   (d) IV

55. **Assertion (A) :** The training in the competition period aims at achieving and maintaining top form.

   Reason (R) : Top form once achieved can last for a prolonged period of time.

   (a) I   (b) II   (c) III   (d) IV

56. **Assertion (A) :** The rate of migration from the hilly areas of Uttarakhand has increased after it was formed in the year 2000.

   Reason (R) : Migration leads to abandonment of villages which causes degradation of land.

   (a) I   (b) II   (c) III   (d) IV

Answer question numbers **57** to **59** based on the data :

The following data shows the sales of books (in thousands) in five branches of a publishing house in two years 2014 and 2015 :

			Branches →		
Year ↓	**B_1**	**B_2**	**B_3**	**B_4**	**B_5**
2014	68	87	90	63	52
2015	72	73	100	77	78

57. What is the average sales of books (in thousands) of the publishing house through these branches in the year 2014 ?

   (a) 70   (b) 72   (c) 75   (d) 80

58. In which branch of the publishing house, the difference between the sales of books (in thousands) in two years, is maximum ?

   (a) B_2 (b) B_3 (c) B_4 (d) B_5

59. Total sales of the branch B_3 for both years is what percent of total sales of all the branches for both the years ?

   (a) 25%   (b) 24%   (c) 22%   (d) 20%

60. You are in a bus. The bus reaches your stop but still you have not purchased the ticket because of heavy rush. What will you do ?
    (a) Jump out quickly to avoid embarrassment.
    (b) Call the conductor, give him the money and get the ticket.
    (c) Hand the money to someone sitting nearby to give it to the conductor.
    (d) Give the money to the driver.

61. Free notebooks were distributed equally among children. The number of notebooks each child got was one-eighth of the number of children. Had the number of children been half, each child would have got 16 notebooks each. How many notebooks were distributed in total ?
    (a) 32   (b) 128   (c) 512   (d) 256

62. You are Superintendent of Police of an area. You are going for a very urgent work. On way to your work, you come across a person who is grievously injured. What will you do ?
    (a) Leave him and proceed to your destination.
    (b) Carry the injured person to the hospital.
    (c) Order one of your subordinates to come and take the person to the hospital.
    (d) Hire a taxi, send him to the hospital and then proceed to your distination.

63. **Statements :** All scientists are fools.
                        All fools are illiterate.
    Conclusions : I.   All scientists are illiterate.
                   II.   All illiterates are scientists.
                   III.   All illiterates are fools.
                   IV.   Some illiterates would be scientists.
    (a) Only I and IV follow.   (b) Only II follows.
    (c) Only III and IV follow.   (d) Only IV follows.

64. A told B, 'Yesterday I met the only brother of the daughters of my paternal grand mother.' Whom did A meet ?
    (a) Cousin   (b) Brother   (c) Nephew   (d) Father

65. **Statement :** "Use 'Riya' cold cream for fair complexion" – An advertisement.
    Assumptions : I.   People like to use cream for fair complexion.
                   II.   People are easily fooled.
                   III.   People respond to advertisements.
    (a) Only I is implicit.   (b) Only I and II are implicit.
    (c) Only I and III are implicit.   (d) None of the above.

66. **Statement :** Children are influenced more by their teachers now-a-days.
    Assumptions : I.   Children consider their teachers as their models.
                   II.   Children's most of the time is spent in schools.
    (a) Only I is implicit.   (b) Only II is implicit.
    (c) Both I and II are implicit.   (d) None of these.

67. The nearest coming year, which will be a perfect square is
    (a) 2018   (b) 2020   (c) 2025   (d) 2032

68. The number of multiples of 7 from 123 to 321 is
    (a) 25   (b) 26   (c) 27   (d) 28

69. The average of 10 numbers was found to be 15. Later it was found that one number 36 was wrongly copied as 26. Correct average is
    (a) 20   (b) 18   (c) 16   (d) 14

Note : Read the following passage carefully and answer the questions (From **70** to **72**) given below :

What was his great power over the mind and heart of man due to ? Even we realise that his dominating passion was truth. That truth led him to proclaim without ceasing that good ends can never be attained by evil methods, that the end itself is distorted if the method pursued is bad. That truth led him to confess publicly whenever he thought he had made a mistake – Himalayan errors he called some of his own mistakes. That truth led him to fight evil and untruth wherever he found them, regardless of the consequences, that truth made the service of the poor and the dispossessed the passion of his life; for where there is inequality and discrimination and suppression, there is injustice and evil and untruth. And thus he became the beloved of all those who have suffered from social and political evils, and the great representative of humanity as it should be. Because of that truth in him where he sat became a temple and where he trod was hallowed ground.

70. "Himalayan errors" in the passage stands for
- (a)   errors that cannot be corrected
- (b)   serious errors
- (c)   minor errors
- (d)   None of the above

71. What makes the person described in the passage a great representative of humanity ?
- (a)   He never made mistakes.
- (b)   While fighting evil, he always thought of consequences.
- (c)   He made the service of the poor and dispossessed his passion of life.
- (d)   He was indifferent to social and political evils.

72. According to the great man, described in the passage which one of the following is not true, if evil methods are adopted ?
- (a)   The good ends will never be attained.
- (b)   There is a strong connection between ends and means.
- (c)   The ends get distorted.
- (d)   Evil methods can help to achieve good ends.

73. What is the antonym of "complicate" ?
- (a)   Analyse
- (b)   Easy
- (c)   Simplify
- (d)   Complex

74. Out of the given alternatives, choose the one that can be substituted for the phrase – 'study of the origin and history of words' :
- (a)   Anthropology
- (b)   Morphology
- (c)   Linguistics
- (d)   Etymology

75. Which one of the given alternatives best expresses the underlined part of the sentence ? Nothing can be done when the whole system is paralysed by <u>inertia</u>.
- (a)   Corruption
- (b)   Weakness
- (c)   Politics
- (d)   Sluggishness

76. Out of the given alternatives, choose the one that correctly describes the meaning of the underlined phrase :
The love of his wife <u>Bore him up</u> in the midst of all his problems.
- (a)   sustained
- (b)   decided
- (c)   humbled
- (d)   None of these

90. If A + B = 2C and C + D = 2A, then

   (a)   A + C = 2D   (b)   A + C = B + D

   (c)   A + D = B + C   (d)   A + C = 2B

91. If $a = \sqrt{3} + 1$, then value of $a^4 + \dfrac{16}{a^4}$ is

   (a)   53   (b)   54   (c)   55   (d)   56

92. How many numbers between 950 and 1050 leave a remainder of 6 when divided by 7, 8 and 14 ?

   (a)   1   (b)   3   (c)   4   (d)   None of these

93. The number of prime factors in $6^{18} \times 7^{11} \times 9^{13}$ is

   (a)   73   (b)   74   (c)   75   (d)   76

94. In a certain code language 'PARENTS' is written as 'RCTGPVU'. How will 'CHILDREN' be written in the same code language ?

   (a)   EFJKCPCM   (b)   EJKNFTGP   (c)   DGJKCQDO   (d)   MDGFKSNB

95. Choose the set of numbers among the following sets, which is similar to the set (12, 20, 60) ?

   (8, 12, 24), (15, 12, 90), (7, 11, 75), (6, 16, 90)

   (a)   (8, 12, 24)   (b)   (15, 12, 90)   (c)   (7, 11, 75)   (d)   (6, 16, 90)

96. Find the missing term in the following series :

   C1L, F4O, I9R, L16U, ?

   (a)   N25X   (b)   O25X   (c)   N25Y   (d)   N20Z

97. Find the missing term (?) in the following series :

   1, 1, 3, 9, 6, 36, 10, 100,   ?,   225

   (a)   12   (b)   13   (c)   14   (d)   15

98. Find the missing number in the following series :

   3624, 4363, 3644, 4563, 3664, ?

   (a)   4363   (b)   4563   (c)   4763   (d)   4263

99. Which number will replace the question mark (?) in the following :

7	11	13
17	19	23
29	31	?

   (a)   30   (b)   33   (c)   37   (d)   35

100. If   84 ⊕ 72 = 45

        63 ⊕ 41 = 33

   then the value of 94 ⊕ 82 is

   (a)   56   (b)   59   (c)   45   (d)   65