

# FIITJEE COMMON TEST

## PHASE - 1

### Mental Ability Test (MAT)

QP CODE:

Time: 2 Hrs.

Maximum Marks: 100

Please read the instructions carefully.

#### INSTRUCTIONS

**A: General :**

1. Immediately fill in the particulars on this page of the Test Booklet with Blue/Black Ball point pen.
2. Use **Blue/Black Ball Point Pen only** for writing particulars on **Side-1** and **Side-2** of the Answer Sheet. **Use of pencil is strictly prohibited.**
3. Darken the appropriate bubbles with **Blue/Black Ball Point Pen** only.
4. Blank papers, clipboards, log tables, slide rules, calculators, cellular phones, pagers and electronic gadgets in any form are not allowed.
5. The answer sheet, a machine-gradable Objective Response Sheet (ORS) is provided separately.
6. Do not Tamper/mutilate the **ORS** or this booklet.
7. No additional sheets will be provided for rough work
8. On completion of this test, the candidate must hand over the Answer Sheet to the Invigilator on duty in the Room/Hall. **However, the candidates are allowed to take away this Test Booklet with them.**

**B: Questions paper format and Marking Scheme :**

1. The question paper consists of *100 questions*.
2. For each question you will be **awarded 1 marks** if you darken the bubble corresponding to the correct answer and zero mark if no bubbles is darkened. **No Negative Mark will be awarded.**

Enrollment No. :  Batch : \_\_\_\_\_

Name : \_\_\_\_\_

Candidate's Signature \_\_\_\_\_ Invigilator's Signature: \_\_\_\_\_

1. Arrange the given words in alphabetical order and choose the one that comes first.  
(A) Cloud (B) Middle  
(C) Grunt (D) Chain
2. Consider the letters of the alphabet written in the order from left to right i.e., from A to Z. The letter which is fourth to the left of the letter, which is fifth to the right of F is  
(A) C (B) W  
(C) E (D) G
3. Consider the letters of the alphabet written in the order from left to right i.e., from A to Z. The letter which is 6<sup>th</sup> to the left of the letter which is 8<sup>th</sup> to the right of P is  
(A) E (B) D  
(C) S (D) R
4. How many c's are there in between two consonants in the following series ?  
c a b c d c d c e c f c o c i c j c k c c k  
(A) 4 (B) 5  
(C) 6 (D) 11
5. In the following question, a word has been given, followed by four other words. One of which can be formed by using the letters from the given word. Find that word.  
ENVIRONMENT  
(A) EMINENT (B) ENTRANCE  
(C) ENTERTAIN (D) MOVEMENT
6. Letters of the word given below have been jumbled up and you are required to construct the word. Each letter has been numbered and word is followed by four options. Choose the option which gives the correct order of the letters as indicated by the numbers to form meaningful word.  
A L I R E M C  
1 2 3 4 5 6 7  
(A) 6 3 4 1 7 2 5 (B) 6 5 1 4 7 3 2  
(C) 7 4 5 1 6 3 2 (D) 7 5 4 1 6 2 3
7. How many Pairs of letters are there in the word 'DICTIONARY' which have as many letters between them in the word as in the alphabet?  
(A) One (B) Two  
(C) Three (D) Five
8. In a telephone Directory, which of the following names will appear at the third position from beginning?  
(A) Randhir (B) Randesh  
(C) Rama (D) Raamed
9. The number of letters between each succeeding pair skip in a decreasing order from five down to one. Identify the set following this rule.  
(A) MSXBEG (B) AGKPSU  
(C) KPUZCE (D) OTZDGI
10. In the word 'PARADISE' how many pairs of letters are there which have as many letters between them in the word as in the English alphabet?  
(A) Two (B) Three  
(C) Four (D) One

11. In each question, a series of letters satisfying a certain pattern are given. Identify the pattern and then find the letter/letters that will come in place of the blank space.  
BDFH, EHKJ,..... , KPUN, NTZP  
(A) HLPK (B) HLOL (C) HLPL (D) HLQI
12. In each question, a series of letters satisfying a certain pattern are given. Identify the pattern and then find the letter/letters that will come in place of the blank space.  
UXWT, TZTX, RCPC, OGKI, .....  
(A) KLEP (B) KLFP (C) KMEP (D) KLGp
13. In each question, a series of letters satisfying a certain pattern are given. Identify the pattern and then find the letter/letters that will come in place of the blank space.  
BDFH, CBID, DZLZ, EXOV, .....  
(A) FVRS (B) FVQR (C) FVRR (D) FURR
14. In each question, a series of letters satisfying a certain pattern are given. Identify the pattern and then find the letter/letters that will come in place of the blank space.  
A2B, B8D, D24F, G56H, K110J,.....  
(A) P192L (B) M156L (C) P208M (D) L216R
15. In each question, a series of letters satisfying a certain pattern are given. Identify the pattern and then find the letter/letters that will come in place of the blank space.  
B1A, D8E, F27I, ....., J125Q  
(A) H81M (B) H64M (C) H64L (D) H64K
16. What should come in place of blank space ?  
2, 4, 16, 256,.....  
(A) 512 (B) 1024 (C) 65536 (D) 2048
17. What should come in place of blank space ?  
1, 2, 5, 10, 17, 26, 37,.....  
(A) 39 (B) 47 (C) 50 (D) 53
18. What should come in place of blank space ?  
1, 6, 21, 66, 201.....  
(A) 606 (B) 303 (C) 404 (D) 503
19. What should come in place of blank space ?  
3, 4, 7, 16, 43, 124,.....  
(A) 372 (B) 367 (C) 376 (D) 384
20. What should come in place of blank space ?  
3, 5, 9, 15, 23, 33,.....  
(A) 39 (B) 45 (C) 43 (D) 41
21. Ramakant walks northwards. After sometime, he turns to his right & after going a little further he turns to his left. Finally, after walking a distance of one kilometer, he turns to his left again. In which direction is he moving now?  
(A) North (B) South  
(C) East (D) West
22. One morning Udai and Vishal were talking to each other face to face at a crossing. If Vishal's shadow was exactly to the left of Udai, which direction was Udai facing?  
(A) East (B) West  
(C) North (D) South
23. Y is in the East of X which is in the North of Z. If P is in the South of Z, then in which direction of Y, is P?  
(A) North (B) South

(C) South – East

(D) None of these

24. A man walks 5 km toward south and then turns to the right. After walking 3 km he turns to the left and walks 5 km. Now in which direction is he from the starting place?  
 (A) West (B) South  
 (C) North – East (D) South – West
25. If South-East becomes North, North-East becomes West and so on. What will West become?  
 (A) North – East (B) North – West  
 (C) South – East (D) South – West
26. A boy rode his bicycle Northward, then turned left and rode 1 km and again turned left and rode 2 km. He found himself 1 km west of his starting point. How far did he ride northward initially?  
 (A) 1 km (B) 2 km  
 (C) 3 km (D) 5 km
27. A girl is facing north. She turns  $180^\circ$  in the anti clockwise direction and then  $225^\circ$  in the clockwise direction. Which direction is she facing now?  
 (A) West (B) North east  
 (C) South west (D) East
28. A, B, C, D, E, F, G, H and I are nine houses. C is 2 km east of B. A is 1 km north of B and H is 2 km south of A. G is 1 km west of H while D is 3 km east of G and F is 2 km north of G. I is situated just in middle of B and C while E is just in middle of H and D.  
 Distance between E and G is  
 (A) 1km (B) 1.5km  
 (C) 2km (D) 5km
29. A, B, C, D, E, F, G, H and I are nine houses. C is 2 km east of B. A is 1 km north of B and H is 2 km south of A. G is 1 km west of H while D is 3 km east of G and F is 2 km north of G. I is situated just in middle of B and C while E is just in middle of H and D.  
 Distance between E and I is  
 (A) 1km (B) 2km  
 (C) 3km (D) 4km
30. A, B, C, D, E, F, G, H and I are nine houses. C is 2 km east of B. A is 1 km north of B and H is 2 km south of A. G is 1 km west of H while D is 3 km east of G and F is 2 km north of G. I is situated just in middle of B and C while E is just in middle of H and D.  
 Distance between A and F is  
 (A) 1km (B) 1.41km  
 (C) 2km (D) 3km
31. P+Q means P is mother of Q, P- Q means P is father of Q, P/ Q means P is sister of Q, P\*Q means P is wife of Q, P%Q means P is son of Q  
 Which of the following shows that J is son-in-law of I?  
 (A) N\*I-L- K/M%J (B) N\*I-L+K/M%J (C) I-L+K/M+N%J (D) N\*I-L- K/M+J
32. If A+ B means A is the father of B If A $\times$  B means A is the sister of B If A\$ B means A is the wife of B If A% B means A is the mother of B If A $\div$ B means A is the son of B  
 What should come in place of question mark (?), to establish that J is the brother of T in the expression?  
 J $\div$ P% H ? T % L  
 (A)  $\times$  (B)  $\div$  (C) \$ (D) Either  $\div$  or  $\times$
33. If A+ B means A is the father of B If A $\times$  B means A is the sister of B If A\$ B means A is the wife of B If A% B means A is the mother of B If A $\div$ B means A is the son of B  
 Which among the given expression indicate that M is the daughter of D?  
 (A) L % R \$ D + T $\times$ M (B) L + R \$ D + M  $\times$  T (C) L % R % D + T  $\div$  M (D) D + L \$ R + M $\times$ T

34. If A+ B means A is the father of B If A× B means A is the sister of B If A\$ B means A is the wife of B If A% B means A is the mother of B If A÷B means A is the son of B  
Which among the following options is true if the expression 'I + T % J × L ÷ K' is definitely true?  
(A) L is the daughter of T  
(B) K is the son-in-law of I  
(C) I is the grandmother of L  
(D) T is the father of J
35. If A+ B means A is the father of B If A× B means A is the sister of B If A\$ B means A is the wife of B If A% B means A is the mother of B If A÷B means A is the son of B  
Which among the following expression is true if Y is the son of X is definitely false?  
(A)  $W \% L \times T \times Y \div X$  (B)  $W + L \times T \times Y \div X$  (C)  $X + L \times T \times Y \div W$  (D)  $W \$ X + L + Y + T$
36. If A+ B means A is the father of B If A× B means A is the sister of B If A\$ B means A is the wife of B If A% B means A is the mother of B If A÷B means A is the son of B  
What should come in place of question mark (?), to establish that T is the sister-in-law of Q in the expression?  $R \% T \times P ? Q + V$   
(A) ÷ (B) % (C) × (D) \$
37. Pointing to Varman, Madhav said, "I am the only son of one of the sons of his father." How is Varman related to Madhav ?  
(A) Nephew (B) Uncle (C) Father or Uncle (D) Father
38. I am only son for my parents. The man in picture is my Father's son. Who is he ?  
(A) Himself (B) Father (C) Brother (D) None of these
39. Pointing to a woman, Rohit said, "Her granddaughter is the only daughter of my brother." How is the woman related to Rohit ?  
(A) Sister (B) Grandmother (C) Wife (D) Mother
40. Pointing towards a man, a woman said, "His mother is the only daughter of my mother." How is the woman related to the man ?  
(A) Mother (B) Grandmother (C) Sister (D) Daughter
41. I went to Delhi @ speed of 200 km/hr but suddenly I returned to the same place @ speed of 600 km/hr. What is my average speed ?  
(A) 300 km/hr (B) 400 km/hr (C) 366.66 km/hr (D) None of these
42. There were five sections in MAT paper. The average score of pooja in first 3 sections was 83 and the average in the last 3 sections was 97 and the average of all the sections (i.e., while paper) was 92, then her score in the third section was :  
(A) 85 (B) 92 (C) 88 (D) None of these
43. Amit travels 30 minutes at the speed of 25 km/hr. Further he travel 20 minutes at the speed of 40 km/hr. Find his average speed.  
(A) 25 km/hr (B) 30 km/hr (C) 31 km/hr (D) None of these
44. The average age of boys in class is 16.66, while the average age of girls is 18.75. Thus the average age of all the 40 students of the class is 17.5. If the difference between the no. of boys and girls is 8, then the number of girls in the class is :  
(A) 12 (B) 16 (C) 18 (D) Data insufficient
45. The average age of 36 student in a group is 14 year, when a teacher's age is included to it, the average age increases by one. What is the teacher's age in years ?  
(A) 31 (B) 51  
(C) 36 (D) Cannot be determined
46. The average of ten numbers is 7. If each number is multiplied by 12, then the average of the new set of numbers is :

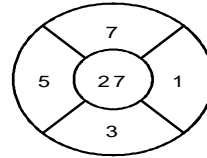
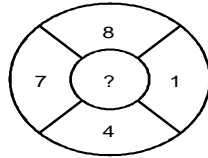
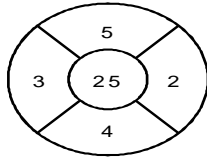
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- (A) 7 (B) 82 (C) 19 (D) 84
47. The average of 2, 7, 6 and x is 5 and the average of 18, 1, 6, x and y is 10. What is the value of y ?  
(A) 5 (B) 20 (C) 10 (D) 30
48. In the first 10 overs of a cricket game, the run rate was only 3.2. What should be the run rate in the remaining 40 overs to reach the target of 282 runs ?  
(A) 6.25 (B) 6.75 (C) 6.5 (D) 7
49. A team of 8 persons joins in a shooting completion. The best marksman scored 85 points. If he had scored 92 points, the average score for the team would have been 84. The number of points, the team scored was:  
(A) 588 (B) 665 (C) 645 (D) 672
50. If the mean of a, b, c is M and  $ab + bc + ca = 0$ , then the mean of  $a^2, b^2, c^2$  is :  
(A)  $M^2$  (B)  $6M^2$  (C)  $3M^2$  (D)  $9M^2$
51. 42 women can do a piece of work in 18 days. How many women would be required do the same work in 21 days?  
(A) 36 (B) 24  
(C) 30 (D) 44
52. Worker A takes 8 hours to do a job. Worker B takes 10 hours to do the same job. How long should it take both A and B, working together but independently, to do the same job?  
(A)  $3\frac{5}{9}$  hrs (B)  $7\frac{4}{5}$  hrs  
(C)  $4\frac{4}{9}$  hrs (D)  $6\frac{7}{5}$  hrs
53. A and B together can complete a piece of work in 4 days. If A alone can complete the same work in 12 days, in how many days can B alone complete that work?  
(A) 8 days (B) 6 days  
(C) 7 days (D) 5 days
54. A is twice as good a workman as B and together they finish a piece of work in 18 days. In how many days will A alone finish the work?  
(A) 27 days (B) 29 days  
(C) 31 days (D) 33 days
55. A can do a certain job in 12 days. B is 60% more efficient than A. How many days does B alone take to do the same job?  
(A)  $5\frac{1}{2}$  days (B)  $7\frac{1}{2}$  days  
(C)  $6\frac{1}{2}$  days (D)  $4\frac{1}{2}$  days
56. A, B and C can do a piece of work in 20, 30 and 60 days respectively. In how many days can A do the work if he is assisted by B and C on every third day?  
(A) 12 days (B) 15 days  
(C) 16 days (D) 18 days
57. If 6 men and 8 boys can do a piece of work in 10 days while 26 men and 48 boys can do the same in 2 days, the time taken by 15 men and 20 boys in doing the same type of work will be:  
(A) 4 days (B) 5 days  
(C) 6 days (D) 7 days

58. 6 men can do a piece of work in 10 days. If a woman works half as fast as a man, in how many days can 10 women complete the work?  
(A) 24 (B) 6  
(C) 18 (D) 12
59. A can do a piece of work in 20 days and B can do the same work in 30 days. They finished the work with the help of C in 8 days. If they earned a total of Rs 5550, then what is the share of C?  
(A) Rs 1800 (B) Rs 1850  
(C) Rs 1900 (D) Rs 1950
60. If P can produce 60 cakes in 9 days and Q can produce 70 cakes in 21 days, how many days do they take to produce 100 cakes together?  
(A) 8 days (B) 9 days  
(C) 10 days (D) 11 days
61. In a certain code language, if 'CONTROL' = 104 and 'QUESTION' = 128, then what is the value of the word 'INSTITUTION'?  
(A) 170 (B) 176  
(C) 196 (D) 181
62. In a certain code language, '123' means 'Green is Red', '24' means 'Red colour', and '326' means 'Green and Red', then what is the code for 'Colour is Green'?  
(A) 146 (B) 632  
(C) 134 (D) 462
63. If ZIP = 198 and ZAP = 138, then how will you code P?  
(A) 1 (B) 3  
(C) 8 (D) 9
64. If 'knr lin hcn' stands for 'everything is fine'; 'nso ons lin' stands for 'there is something' and 'ksa nso wno' stands for 'Ask something now'; What would '*there*' stand for ?  
(A) lin (B) nso  
(C) ons (D) kse
65. If 'GIRL' is written as 'FJQM' in a certain code, then how would 'BOY' be written in that same code?  
(A) CPX (B) APX  
(C) APZ (D) CPZ
66. If in a certain language 'MIRACLE' is coded as 'NKUEHRL', then how 'GAMBLE' be written in that same language?  
(A) JDOCMF (B) CLEMNK  
(C) HCPFQK (D) AELGMN
67. If in a certain code language, 'BROWSER' is written as 'RESWORB', then how 'TEACHER' is coded in that same language?  
(A) REHCEAT (B) REHCAET  
(C) REHCTEA (D) AHRCTEA
68. In a certain code language, if the word MAJESTY is coded as NZKDTSZ, then which is coded as HKJLQRF in that language?  
(A) GLORIFY (B) GLISTEN  
(C) GLOWING (D) GLIMPSE

69. If in the English alphabet 'A' is written as '62' B is written as '52' and so on. How should 'K' be written?  
 (A) 81 (B) 61  
 (C) 71 (D) 51
70. In a certain code 'REPORT' is written as 'SDONQU'. How is 'PERSON' written in that code?  
 (A) QDQRNP (B) QDQRNM  
 (C) ODQRNP (D) None of these
71. Ashok spends  $\frac{1}{8}$  of the money for mangoes and  $\frac{1}{7}$  of the remaining money for sweets. With the leftover money he goes to a bakery and spends  $\frac{1}{6}$  of the money to buy bread for his father, and with the remaining money he spends  $\frac{1}{5}$  and buys flowers for his sister and from the amount left over he buys a cricket ball by spending  $\frac{1}{4}$  of the amount. Now he is left with Rs. 48. How much money did Ashok have in beginning ?  
 (A) Rs. 125 (B) Rs. 80 (C) Rs. 100 (D) Rs. 128
72. A certain number of camels and an equal number of men are going somewhere. Half of the owners are on the back of their camels, while the remaining ones are walking along leading their camels. If the number of legs walking on the ground is 70, how many camels are there ?  
 (A) 12 (B) 14 (C) 16 (D) 10
73. Two poles X and Y each of 16 cm high are placed parallel to each other on a plain ground. Frog A is positioned at the top of pole X, whereas frog B is positioned at the ground level near the pole Y. Frog A comes 2 cm down the pole X during the daytime and goes up 1 cm during the night every day, whereas frog B goes up 2 cm up the pole Y during the day and slips down 1 cm during the night every day. After how many days will the two frogs be at the same height about the ground level ?  
 (A) 7 (B) 8 (C)  $7\frac{1}{2}$  (D)  $6\frac{1}{2}$
74. Ashok working in a bank can claim Rs. 15 for each kilometer which he travels by taxi and Rs. 5 for each kilometer when he goes in his own car. If Ashok claims Rs. 500 in 1 week for travelling 80 km, how many km did he travel by taxi ?  
 (A) 20 km (B) 15 km (C) 30 km (D) 10 km
75. A group of 1200 persons consisting of professors and students joined for new Year celebrations. For every 15 students there is one professor. What is the total number of professors participated in the party ?  
 (A) 85 (B) 80 (C) 75 (D) 65
76. In a bundle of 154 shirts, there are three less white shirts than red shirts, and five more white shirts than green shirts. How many red shirts are there ?  
 (A) 52 (B) 50 (C) 55 (D) 47
77. A monkey ate 100 idlis in 5 days, each day eating six more than the previous day. How many did it eat on the last day ?  
 (A) 23 (B) 26 (C) 35 (D) 32
78. A worker is paid Rs. 100 per day for attending office and fined Rs. 50 on the day of his absence. If in a month of 30 days he earns Rs. 2400, how many days was he absent ?  
 (A) 12 (B) 6 (C) 8 (D) 4
79. In a box of 100 milk chocolates, there are four times as many 5 stars and five times as many Dairy milk as there are Amul chocolates. If the cost of each Amul, 5 star and dairy milk are in the ratio of 2 : 3 : 4, what could be the cost of box of chocolates ?  
 (A) Rs. 340 (B) Rs. 260 (C) Rs. 200 (D) Rs. 400
80. A glass half full of milk weighs 700 gm. When it is empty, it weighs 300 gm. How much will it weigh when  $\frac{3}{5}$  of it is full of milk ?  
 (A) 1420 gm (B) 1120 gm (C) 780 gm (D) 760 gm

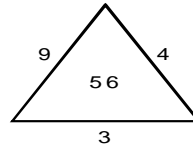
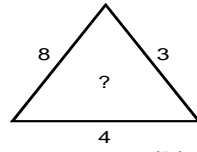
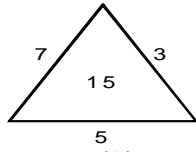


81. Insert the missing number



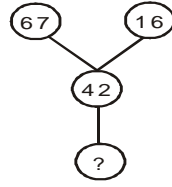
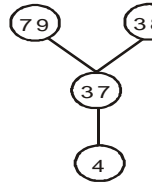
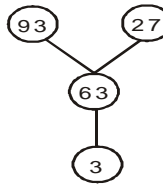
- (A) 28 (B) 40 (C) 39 (D) 42

82. Insert the missing number



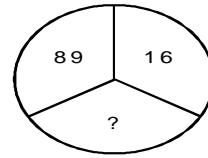
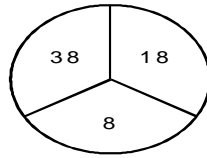
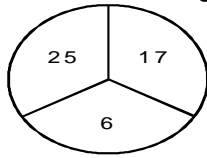
- (A) 39 (B) 45 (C) 35 (D) 48

83. Insert the missing number



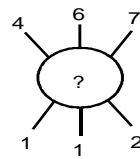
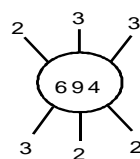
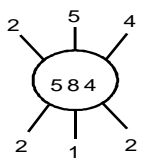
- (A) 5 (B) 6 (C) 8 (D) 9

84. Insert the missing number



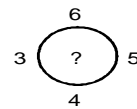
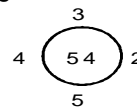
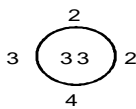
- (A) 19 (B) 17 (C) 15 (D) 13

85. Insert the missing number



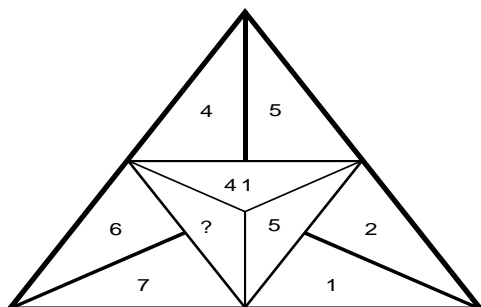
- (A) 937 (B) 824 (C) 769 (D) 678

86. Insert the missing number



- (A) 94 (B) 86 (C) 82 (D) 78

87. Insert the missing number



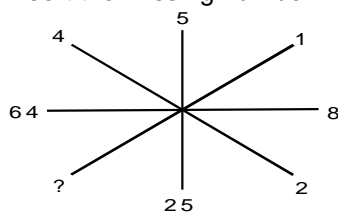
(A) 16

(B) 9

(C) 85

(D) 112

88. Insert the missing number



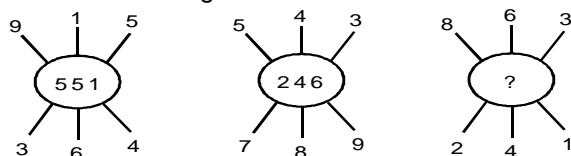
(A) 1

(B) 2

(C) 3

(D) 4

89. Insert the missing number



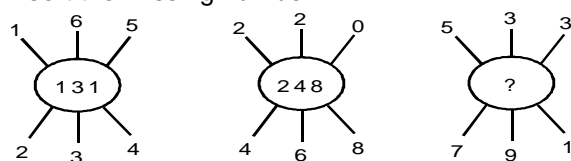
(A) 262

(B) 622

(C) 631

(D) 824

90. Insert the missing number



(A) 320

(B) 274

(C) 262

(D) 132

91. A man in a train notices that he can count 21 telephone posts in one minute. If they are known to be 50 metres apart, then at what speed is the train travelling?  
 (A) 55 km/hr (B) 57 km/hr  
 (C) 60 km/hr (D) 63 km/hr
92. A man can row upstream at 8 kmph and downstream at 13 kmph. The speed of the stream is:  
 (A) 2.5 km/hr (B) 4.2 km/hr  
 (C) 5 km/hr (D) 10.5 km/hr
93. A man takes twice as long to row a distance against the stream as to row the same distance in favour of the stream. The ratio of the speed of the boat (in still water) and the stream is:  
 (A) 2:1 (B) 3:1  
 (C) 3:2 (D) 4:3
94. Ganesh and Suresh are running along a circular track of length 300 m. If the speeds of Ganesh and Suresh are 6 m/sec and 12 m/sec respectively, how many rounds more than Ganesh will Suresh complete in 1 hour?  
 (A) 36 (B) 108  
 (C) 144 (D) 72
95. Two stations A and B are 110 kms apart on a straight line. One train starts from A at 7 AM and travels towards B at 20 km/hr. speed. Another train starts from B at 8 AM and travels towards A at 25 km/hr. speed. At what time will they meet?  
 (A) 9 AM (B) 10 AM  
 (C) 11 AM (D) 12 AM

96. Walking  $\frac{6}{7}$  th of his usual speed, a man is 12 minutes too late. The usual time taken by him to cover that distance is:  
(A) 1 hour (B) 1 hr 12 min  
(C) 1 hr 15 min (D) 1 hr 20 min
97. Two cyclists start from the same place in opposite directions. One goes towards north at 18 kmph and the other goes towards south at 20 kmph. What time will they take to be 47.5 km apart?  
(A)  $1\frac{1}{4}$  hrs (B)  $2\frac{1}{4}$  hrs  
(C) 2 hrs 23 min (D)  $2\frac{1}{2}$  hrs
98. Two trains start from P and Q respectively at the same time and travel towards each other at a speed of 50 km/hr and 40 km/hr respectively. By the time they meet, the first train has traveled 100 km more than the second. The distance between P and Q is:  
(A) 500 km (B) 630 km  
(C) 660 km (D) 900 km
99. Mrs. Robins started half an hour later than usual for the market place. But by increasing her speed to  $\frac{3}{2}$  times her usual speed she reached 10 minutes earlier than usual. What is her usual time for this journey?  
(A) 2 hours (B) 1 hour  
(C) 45 minutes (D) 1 hour 15 minutes
100. Three cyclists with respective speeds of 8 m/sec, 10 m/sec and 12 m/sec are cycling around a circular track of length 120 metres. If they are cycling in the same direction, after how many seconds do all the three meet for the first time?  
(A) 60 (B) 30  
(C) 40 (D) 20

# ANSWERS

1.	D	2.	D	3.	D	4.	B
5.	A	6.	A	7.	C	8.	B
9.	A	10.	B	11.	C	12.	A
13.	C	14.	A	15.	B	16.	C
17.	C	18.	A	19.	B	20.	B
21.	D	22.	C	23.	D	24.	D
25.	C	26.	B	27.	B	28.	C
29.	A	30.	A	31.	B	32.	A
33.	B	34.	B	35.	D	36.	D
37.	C	38.	A	39.	D	40.	A
41.	A	42.	D	43.	C	44.	B
45.	B	46.	D	47.	B	48.	A
49.	B	50.	C	51.	A	52.	C
53.	B	54.	A	55.	B	56.	B
57.	A	58.	D	59.	B	60.	C
61.	D	62.	C	63.	C	64.	C
65.	B	66.	C	67.	B	68.	D
69.	B	70.	D	71.	D	72.	B
73.	D	74.	D	75.	C	76.	C
77.	D	78.	D	79.	A	80.	C
81.	B	82.	A	83.	D	84.	C
85.	D	86.	B	87.	C	88.	A
89.	B	90.	C	91.	C	92.	A
93.	B	94.	D	95.	B	96.	B
97.	A	98.	D	99.	A	100.	A