DO NOT OPEN THIS TEST BOOKLET UNTIL YOU ARE TOLD TO DO SO

T.B.C. : STS-K-TPT
Serial No.:

Test Booklet Series

B

TEST BOOKLET

Subject : Test 14 – CSAT
Question Paper

Time Allowed : Two Hours **Maximum Marks : 200**

INSTRUCTIONS

1.IMMEDIATELY AFTER THE COMMENCEMENT OF THE EXAMINATION, YOU SHOULD CHECK THAT THIS TEST BOOKLET DOES NOT HAVE ANY UNPRINTED OR TORN OR MISSING PAGES OR ITEMS, ETC. IF SO, GOT IT REPLACED BY A COMPLETE TEST BOOKLET.

2. Please note that it is the candidate's responsibility to encode and fill in the Roll Number and Test Booklet Series A, B, C or D carefully and without any omission or discrepancy at the appropriate places in the OMR Answer Sheet. Any omission/discrepancy will render the Answer Sheet liable for rejection.

3. You have to enter your Roll Number on the Test Booklet in the Box provided alongside. DO NOT write anything else on the Test Booklet.

4. This Test Booklet contains 100/80 items (questions). Each item is printed in English. Each item comprises of four responses (answers). You will select the response which you want to mark on the Answer Sheet. In case you feel that there is more than one correct response, mark the response which you consider the best. In any case, choose ONLY ONE response for each item.

5. You have to mark all your responses ONLY on the separate Answer Sheet provided. See directions in the Answer Sheet.

6. All items carry equal marks

7. Before you proceed to mark in the Answer Sheet the response to various items in the Test Booklet, you have to fill in some particulars in the Answer Sheet as per instructions sent to you with your Admission Certificate.

8. After you have completed filling in all your responses on the Answer Sheet and the examination has concluded, you should hand over to the Invigilator only the Answer Sheet. You are permitted to take away with you the Test Booklet.

9. Sheets for rough work are appended in the Test Booklet at the end.

10. **Penalty for wrong answers:**

THERE WILL BE PENALTY FOR WRONG ANSWERS MARKED BY A CANDIDATE IN THE OBJECTIVE TYPE QUESTION PAPERS

(i) There are four alternatives for the answer to every question. For each question for which a wrong answer has been given by the candidate, **one third** if the marks assigned to that question will be deducted as penalty.

(ii) If a candidate gives more than one answer, it will be treated as a wrong answer even if one of the given answers happens to be correct and there will be same penalty as above to that question.

(iii) If a question is left blank, i.e., no answer is given by the candidate, there will be no penalty for that question.

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1. The sum of two numbers is 84 and their HCF is 12. How many such pairs are possible?

A) 2
B) 3
C) 4
D) 5

2. A number when divided by 899 gives remainder 63. What will be the remainder when the same number is divided by 29?

A) 5
B) 6
C) 7
D) 8

3. The least number which when divided by 12, 15, and 20 leaves the same remainder 7 is:

A) 67
B) 127
C) 247
D) 307

4. The product of two consecutive odd numbers is 255. The smaller number is:

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

5. A number consists of three digits. The sum of digits is 12. If the digits are reversed, the number is increased by 297. The original number is:

A) 336
B) 435
C) 546
D) 618

6. The sum of first 50 odd numbers is equal to:

A) 1250
B) 2500
C) 1000
D) 2500

7. The difference between the squares of two consecutive integers is always:

A) Odd
B) Even
C) Prime
D) Composite

8. If the sum of digits of a number is divisible by 9, then the number itself is divisible by

A) 3 only
B) 6 only
C) 9
D) 18

9. The least number which when divided by 35, 45, and 55 leaves remainder 18 in each case is:

A) 3447
B) 3465
C) 3483
D) 3543

10. The sum of digits of a two-digit number is 9. If the digits are reversed, the number is increased by 27. The original number is:

A) 36
B) 45
C) 54
D) 63

11.If a number is expressed as $3^4 \times 2^3$, what is the total number of factors?

A) 12
B) 15
C) 20
D) 16

12. If 3A = 4B = 6C, then A:B:C is:

A) 2:3:4
B) 4:3:2
C) 6:4:3
D) 3:4:6

13. A sum of ₹720 is divided among A, B, C in ratio 2:3:4. The share of C is:

A) ₹240
B) ₹320
C) ₹360
D) ₹400

14. The ratio of speeds of two trains is 3:5. They cover the same distance. If the slower takes 40 minutes, the faster takes:

A) 24 min
B) 25 min
C) 30 min
D) 32 min

15. The ratio of income to expenditure of a person is 7:5. If savings are ₹600 income is:

A) ₹2100
B) ₹2400
C) ₹2800
D) ₹3000

16. If A:B=2:3 and B:C=4:5, then A:B:C is:

A) 8:12:15
B) 2:4:5
C) 6:9:10
D) 4:6:5

17. The ratio of milk to water in a mixture is 7:5. If 6 liters of water is added, ratio becomes 7:8. Quantity of milk is:

A) 21
B) 28
C) 35
D) 14

18. The LCM of two co-prime numbers is 143. If one of the numbers is 13, find the other number

A)12
B) 11
C) 24
D) 32

19. A and B together have ₹1210. If A's money is 4/7 of B's, then A's share is:

A) ₹440
B) ₹484
C) ₹550
D) ₹726

20 .The ratio of present ages of father and son is 7:3. After 6 years, ratio becomes 8:4. Present age of son is:

A) 15
B) 18
C) 21
D) 24

21. Three bells ring together at intervals of 12, 15, and 20 minutes. If they start ringing together at 8:00 AM, at what time will they next ring together?

A) 9:00AM
B) 10:00AM
C) 11:00AM
D) 12:00 Noon

22. Four bells ring at intervals of 6, 8, 10, and 12 minutes. If they all ring together at 7:00 AM, after how many minutes will they ring together again?

A) 120
B) 240
C) 360
D) 480

23. The HCF of two numbers is 18 and their LCM is 108. If one number is greater than the other by 18, find the numbers.

A) 36 and 54
B) 72 and 90
C) 45 and 63
D) 54 and 72

24. The least number which when divided by 24, 36, and 54 leaves remainder 15 in each case is:

A) 195
B) 255
C) 375
D) 231

25. Three traffic lights at a crossing change their signals every 48 seconds, 72 seconds, and 108 seconds respectively. If they all change at the same time at 8:00:00 AM, after how much time will they next change together?

A) 6 minutes
B) 7 minutes 12 seconds
C) 8 minutes 24 seconds
D) 9 minutes

26. Three bells ring at intervals of 9, 12, and 15 minutes. If they start together at 6:00 AM, how many times will they ring together in 12 hours (excluding the first time)?

A) 1
B) 2
C) 3
D) 4

27. The HCF of two numbers is 23 and their LCM is 1449. If one number is 69, find the other.

A) 207
B) 299
C) 483
D) 529

28. Three pieces of cloth of lengths 84 m, 108 m, and 132 m are to be cut into equal length pieces of maximum possible size. What will be the length of each piece?

A) 6 m
B) 8 m
C) 12 m
D) 18 m

29. Three numbers are 96, 144, and 168. They are to be divided into groups of equal size such that each group has the maximum possible number of items. What will be the number of items in each group?

A) 12
B) 24
C) 36
D) 48

30. Three bells ring at intervals of 18 minutes, 24 minutes, and 30 minutes respectively. If they ring together at 6:00 AM, how many times will they ring together again in the next 12 hours?

A) 1
B) 2
C) 3
D) 4

31. The average age of 40 students in a class is 15 years. If the teacher's age is included, the average increases by 0.5 years. What is the teacher's age?

A) 35.5 years
B) 38.5 years
C) 39.5 years
D) 41.5 years

32. The average of 20 numbers is 45. Later it was found that one number was wrongly taken as 85 instead of 58. Find the correct average.

A) 43.65
B) 44.35
C) 44.85
D) 45.15

33. The average marks of 50 students in a class is 72. The average marks of boys is 75 and that of girls is 70. Find the number of boys in the class.

A) 20
B) 25
C) 30
D) 35

34. The average weight of 30 students is 50 kg. If the weight of the teacher is included, the average increases by 2 kg. Find the teacher's weight.

A) 110 kg
B) 112 kg
C) 115 kg
D) 120 kg

35. The average of five consecutive odd numbers is 53. Find the largest number.

A) 55
B) 57
C) 59
D) 61

36. A student scored 40% marks in an exam and failed by 20 marks. Another student scored 50% marks and got 30 marks more than the pass marks. Find the maximum marks of the exam.

A) 400
B) 450
C) 500
D) 600

37. A man spends 40% of his income on food, 25% on rent, and 15% on other expenses. He saves ₹900 per month. Find his monthly income.

A) ₹3000
B) ₹3600
C) ₹4000
D) ₹4500

38. The price of a commodity is increased by 20%. By what percent must the consumption be reduced so that the expenditure remains unchanged?

A) 16.66%
B) 20%
C) 25%
D) 33.33%

39. A fruit seller buys bananas at ₹10 a dozen and sells them at ₹3 for 2 bananas. Find his gain percentage

A) 20%
B) 30%
C) 60%
D) 80%

40. A man's salary is first increased by 20% and then decreased by 20%. What is the net percentage change in his salary?
A) 0%
B) 4% decrease
C) 4% increase
D) 8% decrease

41. A shopkeeper marks his goods 40% above cost price and allows a discount of 20%. Find his profit percentage.
A) 12%
B) 16%
C) 20%
D) 25%

42. A man sells an article at a gain of 20%. If he had bought it at 20% less and sold it for ₹48 less, his gain would have been 25%. Find the cost price of the article.
A) ₹240
B) ₹300
C) ₹360
D) ₹400

43. A trader sells two articles at ₹450 each. On one he gains 20% and on the other he loses 20%. Find his overall gain or loss percentage.
A) 4% gain
B) 4% loss
C) No gain, no loss
D) 2% loss

44. A man purchased 120 pens at ₹10 each. He sold 1/3rd of them at 10% loss, 1/4th at cost price, and the rest at 20% profit. Find his overall profit percentage.
A) 5%
B) 6%
C) 7%
D) 8%

45. A person borrowed ₹5000 at 12% compound interest per annum. He repaid ₹1800 at the end of each year for 3 years. Find the balance left unpaid after 3 years.
A) ₹850
B) ₹900
C) ₹940
D) ₹1100

46. The difference between compound interest and simple interest on ₹5000 at 10% per annum for 2 years is:
A) ₹50
B) ₹100
C) ₹150
D) ₹200

47. A sum of money doubles itself in 5 years at compound interest. In how many years will it become 8 times?
A) 10
B) 15
C) 20
D) 25

48. A sum of ₹8000 is lent at compound interest. It amounts to ₹9261 in 1 year and 2 months. Find the rate of interest per annum.
A) 10%
B) 12%
C) 15%
D) 20%

49. A person invests ₹10,000 at 12% compound interest compounded annually. Find the compound interest after 3 years.
A) ₹4050
B) ₹4520
C) ₹4820
D) ₹5000

50. A sum of money becomes ₹1331 in 3 years at compound interest. Find the principal if the rate of interest is 10% p.a
A) ₹1000
B) ₹1100
C) ₹1200
D) ₹1250

51. A sum of money amounts to ₹1260 in 2 years and ₹1440 in 5 years at simple interest. What is the principal?
A) ₹1080
B) ₹1100
C) ₹1140
D) ₹1200

52. At what rate did a bank grant a loan of ₹10000 if it received ₹10950 after six months?
A) 15%
B) 16%
C) 19%
D) 18%

53. How many years will a sum of money take to double itself at 15% per annum ?

A) 6
B) $5\frac{6}{8}$
C) $6\frac{2}{3}$
D) 7

54. A cylindrical tank of radius 6 m contains water up to a height of 8 m. A solid cone of radius 3 m and height 9 m is completely immersed in the tank with its base horizontal. What is the rise in water level?

A) 0.75 m
B) 1 m
C) 1.5 m
D) 2 m

55. A cone has slant height 13 cm and base radius 5 cm. A smaller cone is cut off from the top by a plane parallel to the base, reducing the height by half. The volume of the frustum is:

A) 275 cm^3
B) 350 cm^3
C) 400 cm^3
D) 450 cm^3

56. A cube of side 10 cm is cut into 1000 smaller cubes. The ratio of the total surface area of smaller cubes to that of the original cube is:

A) 5:1
B) 10:1
C) 15:1
D) 20:1

57. A hemispherical bowl of radius 9 cm is filled with water. How many cylindrical glasses of radius 3 cm and height 6 cm can be filled?

A) 7
B) 8
C) 9
D) 10

58. A solid sphere of radius 6 cm is melted into smaller spheres of radius 2 cm. The number of smaller spheres formed is:

A) 18
B) 27
C) 36
D) 54

59. A hollow cylindrical pipe has external diameter 20 cm, internal diameter 16 cm, and length 35 cm. The volume of metal used is:

A) 3960 cm^3
B) 4200 cm^3
C) 4400 cm^3
D) 4620 cm^3

60. A solid consists of a hemisphere surmounted on a cylinder. Radius = 7 cm, height of cylinder = 10 cm. The total surface area of the solid is:

A) 770 cm^2
B) 792 cm^2
C) 814 cm^2
D) 900 cm^2

61. (Syllogism) Statements: All cats are animals. Some animals are dogs.
Conclusions:

1.Some cats are dogs.
2.Some dogs are animals.

Options

A) Only 1 follows
B) Only 2 follows
C) Both follow
D) Neither follows

62. (Blood Relation) Pointing to a man, Rina said: “He is the son of my grandfather’s only son.” How is the man related to Rina?

A) Brother
B) Cousin
C) Uncle
D) Father

63. (Direction Sense) A man walks 5 km north, then 3 km east, then 5 km south. How far is he from the starting point?

A) 2 km
B) 3 km
C) 4 km
D) 5 km

64. (Coding-Decoding) In a certain code, TREE = VTGG. What will LEAF be?

A) NGCH
B) MFBG
C) NFBG
D) MFCH

65. (Seating Arrangement) Five people A, B, C, D, E sit in a row. A is left of B, C is right of D, E is between A and D. Who is in the middle?

A) A
B) B
C) C
D) E

66. (Analogy) Book : Reading :: Knife : ?

A) Cutting
B) Writing
C) Eating
D) Sharpening

67. (Series Completion) 2, 6, 12, 20, ?

A) 28
B) 30
C) 32
D) 34

68. (Puzzle) Three friends P, Q, R have different professions: doctor, teacher, engineer.

P is not a doctor.
Q is not a teacher.
R is an engineer.

Who is the doctor?

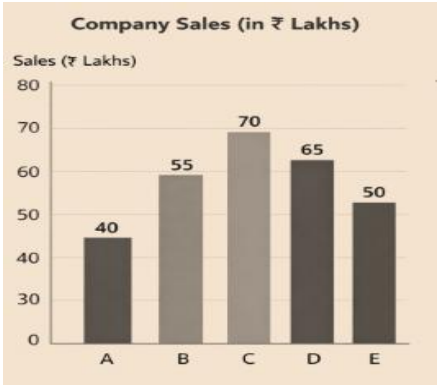
A) P
B) Q
C) R
D) Cannot be determined

69. (Statement & Assumption) Statement: "Use seat belts while driving to reduce accidents."
Assumption:
1.Seat belts reduce accidents.
2.People do not use seat belts regularly.

A) Only 1 is implicit
B) Only 2 is implicit
C) Both are implicit
D) Neither is implicit

70. (Data Sufficiency) Question:
What is the age of Rahul?
Statements:
1.Rahul is 5 years younger than his brother.
2.His brother is 20 years old.

A) Statement 1 alone is sufficient
B) Statement 2 alone is sufficient
C) Both together are sufficient
D) Neither is sufficient



71. What is the average sales of all five companies?

A) ₹52 L
B) ₹54 L
C) ₹56 L
D) ₹58 L

72. Which company's sales are 30% more than Company A?

A) Company B
B) Company C
C) Company D
D) Company E

73. By what percent is Company C's sales greater than Company E's?

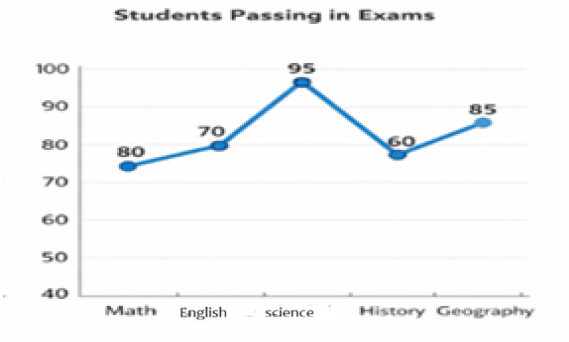
A) 30%
B) 35%
C) 40%
D) 45%

74. If Company D's sales increase by 20%, what will be its new sales?

A) ₹75 L
B) ₹78 L
C) ₹80 L
D) ₹82 L

75. What is the ratio of sales of Company B to Company C?

A) 11:14
B) 10:13
C) 12:15
D) 13:17



76. What is the total number of students passing across all subjects?

A) 380
B) 390
C) 400
D) 410

77. Which subject has approximately 25% fewer students passing than Science

A) Math
B) English
C) History
D) Geography

78. By what percent is Math higher than English?

A) 10%
B) 12.5%
C) 14.3%
D) 15%

79. If 10 more students pass in History, what is the new average number of students passing per subject?

A) 78
B) 79
C) 80
D) 81

80. What is the ratio of students passing in Science to those in History?

A) 3:2
B) 5:3
C) 19:12
D) 17:11