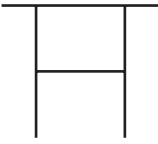
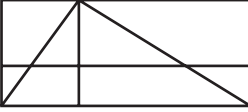


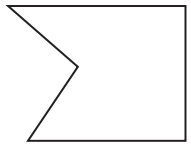
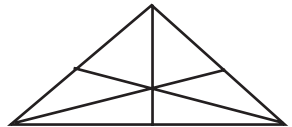
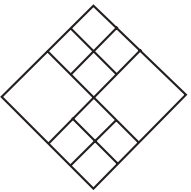
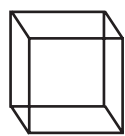
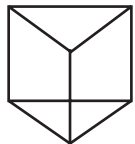
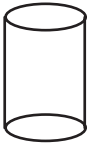
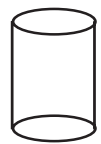
V(EM) ADTM

CENTRE FOR PEDAGOGICAL STUDIES IN MATHEMATICS (CPSM)
ACHIEVEMENT-CUM-DIAGNOSTIC TEST IN MATHEMATICS-2022

INSTRUCTION: Write your Name, Class, Roll No. etc. in the answersheet. Select the correct answer out of (a), (b), (c) and (d) of particular item and blaken the specific rectangle ■ with H.B. pencil denoting the correct answer. For example, if (c) is the correct answer to Q. No. X: blacken like this: Q. No. X: Rough work is to be done on separate paper. Marks will be deducted for wrong answer. Don't waste time for answering a question which appears difficult to you, better try the next question.

- Which of the following curves is closed?
(a) S (b) C (c) G (d) D
- The measure of one acute angle of an isosceles right angled triangle is
(a) 60° (b) 45° (c) 30° (d) 25°
- The length of three line segments are given in which case we can construct a triangle?
(a) 2 cm, 3 cm, 5 cm (b) 3 cm, 4 cm, 5 cm
(c) 2 cm, 6 cm, 3 cm (d) 2 cm, 2 cm, 4 cm
- Number of right angles in the adjoining figure is 
(a) 8 (b) 4
(c) 6 (d) 10
- Number of rectangle in the adjoining figure is 
(a) 4 (b) 8
(c) 9 (d) 10
- Number of line segments in the adjoining figure

Class-V-(1)

- (a) 3 (b) 6
(c) 4 (d) 5
- In the adjoining figure a triangle has three medians intersecting at a point. The number of triangles in the figure is 
(a) 6 (b) 7 (c) 12 (d) 13
- The number of surfaces of a pentagonal prism is 
(a) 6 (b) 10 (c) 7 (d) 5
- The number of squares in the adjoining figure is 
(a) 11 (b) 12
(c) 13 (d) 16
- Observe the following capital letters of the English alphabets
E, F, H, K, L, M, N, T, Y, Z
In how many of the above capital letters we can have at least one right angle?
(a) 5 (b) 6 (c) 7 (d) 4
- Which one of the given solids has six surfaces?
(a)  (b)  (c)  (d) 
- The number of plane surfaces of a solid sphere is—
(a) 3 (b) 2 (c) 1 (d) 0
- Number of diagonals of a hexagon is

Class-V-(2)

of your class answered "yes", how many of those polled were "undecided"?

- (a) 20 (b) 24 (c) 30 (d) 10

30. The average of a set of four numbers is 5. if the number zero is included to the set then the new average of the set is

- (a) 5 (b) 4 (c) 0 (d) $5\frac{1}{5}$

31. There are four prime numbers written in ascending order. The product of the first three is 385 and that of the last three is 1001. The greatest among these is

- (a) 11 (b) 13 (c) 17 (d) 15

32. The tenth term of the series 2, 3, 5, 7, 11, 13, ... is

- (a) 28 (b) 31 (c) 27 (d) 29

33. If $16 * 2 = 16$, $12 * 6 = 36$ and $6 * 1 = 3$ then $4 * 4 =$

- (a) 2 (b) 16 (c) 8 (d) 12

34. One term of the following number series is wrong, find out the wrong term

2, 5, 11, 23, 45, 95, ..., ...

- (a) 45 (b) 95 (c) 11 (d) 5

35. A book and a school bag together cost Rs. 680; if the book costs Rs. 80 more than the school bag then the cost of the book is

- (a) Rs. 280 (b) Rs. 380 (c) Rs. 300 (d) Rs. 220

36. What should be added to $\left(\frac{1}{2} + \frac{1}{3} + \frac{1}{5}\right)$ to get 3.

- (a) $\frac{90}{31}$ (b) $\frac{3}{31}$ (c) $\frac{1}{30}$ (d) $\frac{59}{30}$

37. 20 litres of a mixture contains syrup and water in the ratio 5 : 3; if 4 litres of syrup is added to this mixture. The ratio of syrup and water will be

- (a) 11 : 5 (b) 2 : 1 (c) 11 : 6 (d) 10 : 9

38. Sanku cycles from Darsole to Silda, a distance 21 km in 1 hr 40 minutes. The road from Darsole is level for 13 km and then it is uphill to Silda. If the average speed of Sanku on level road is 15 km/hr, find his average uphill speed.

- (a) 12 km/hr (b) 5 km/hr (c) 8 km/hr (d) 10 km/hr

39. Apu joined a college on 6th August, 2011 and left it on 8th March, 2014. How long did he study in that college?

- (a) 2 yrs. 6 months 22 days

- (b) 2 yrs 5 months 22 days

- (c) 2 yrs 4 months 12 days

- (d) none of these

40. In a cricket match India scored 300 runs. 126 runs were scored by Sachin Tendulkar only. Find the percentage of runs scored by Sachin Tendulkar only.

- (a) 40 % (b) 37.8% (c) 45 % (d) 42 %

41. One-third of 1206 is what percent of 134?

- (a) 300%

- (b) 30 %

- (c) 3 %

- (d) None of these

42. $\frac{112}{\sqrt{196}} \div \frac{12}{\sqrt{576}} \times \frac{\sqrt{256}}{8} =$

- (a) 16

- (b) 4

- (c) 12

- (d) 32

43. Express $\frac{17}{10}$ as a percentage

- (a) 17 %

- (b) 170%

- (c) 0.17%

- (d) 1.7 %

44. By what number should $\frac{2}{5}$ be multiplied so that the product may be $\frac{1}{3^3}$?

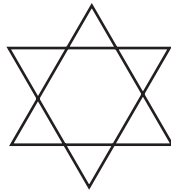
- (a) 25 (b) $\frac{25}{3}$ (c) $\frac{5}{3}$ (d) $\frac{50}{9}$
45. Express 50 cm in kilometer.
 (a) 0.0005 km (b) 0.00005 km
 (c) 0.005 km (d) 0.0025 km
46. $5 - 5 \left(1 \frac{1}{5} - \frac{3}{5} \right) \div \left\{ 3 - 2 \div \left(2 - \frac{2}{5} \right) \right\} =$
 (a) 1 (b) $\frac{2}{7}$ (c) 3 (d) $3 \frac{2}{7}$
47. The average of the prime numbers between 60 and 70 is
 (a) $64 \frac{1}{3}$ (b) 65 (c) $64 \frac{1}{2}$ (d) 64
48. A train started from Kolkata at 5 : 30 am on Tuesday and reached Delhi on Wednesday at 8 : 50 pm. Find the total time taken by the train from Kolkata to Delhi.
 (a) 38 hrs 30 mins (b) 39 hrs 20 mins
 (c) 39 hrs 30 mins (d) 40 hrs.
49. Umasankar distributed Rs. 2601 among a number of students. He gave every student as many rupees as there were the students. Find the number of students.
 (a) 51 (b) 52 (c) 49 (d) 510
50. If two persons can do a piece of work in 7 days then how many persons will be required to finish the same work in one day.
 (a) 7 (b) 28 (c) 14 (d) 21
51. What least number by which 7200 must be divided to make it a perfect square?
 (a) 8 (b) 18 (c) 2 (d) 3
52. Which one of $16 \frac{2}{3}\%$, $\frac{2}{15}$, 0.18 and 1.666... is largest?
 (a) $16 \frac{2}{3}\%$ (b) $\frac{2}{15}$ (c) 0.18 (d) 1.666...

Class-V-(7)

53. The mean of first 8 odd numbers is
 (a) 8 (b) 6.4 (c) 7 (d) 9
54. Which of the following is equivalent to 6.08?
 (a) 6.08% (b) 60.8% (c) 6080% (d) 608%
55. Find 120% of 500.
 (a) 660 (b) 60 (c) 600 (d) 6000
56. Which one of the following statements is wrong?
 (a) We can not divide any number by zero.
 (b) Every number other than zero is a factor of itself.
 (c) Zero is a multiple of every number
 (d) Zero is a prime number
57. How many least number of distinct points determine a unique straight line.
 (a) one (b) two (c) three (d) infinite
58. The unit digit of the number $(1076)^{976}$ is
 (a) 4 (b) 6 (c) 9 (d) 8
59. The sum of two numbers is 15 and their HCF is 5; the numbers are
 (a) 5, 10 (b) 10, 15 (c) 0, 15 (d) 7, 8
60. A triangular prism has
 (a) 4 vertices and 6 edges
 (b) 6 vertices and 9 edges
 (c) 6 vertices and 6 edges
 (d) 9 vertices and 6 edges
61. Which one of the following statements is wrong?
 (a) The product of two prime number is a prime number.
 (b) The product of two composite number is a composite number

Class-V-(8)

- (c) There is only one whole number which is neither prime nor composite
 (d) Every number other than 1 has at least two factors.
62. Which one of the following statements is wrong?
 (a) Two prime numbers are always co-prime.
 (b) A prime number and a composite numbers are always co-prime.
 (c) Two composite numbers can be coprime.
 (d) Sometimes two even numbers may be co-prime.
63. The unit digit of $216 \times 336 - 115 \times 15$ is
 (a) 0 (b) 1 (c) 2 (d) 6
64. $10 \times 6 - [5 + \{10 - (12 \div 6)\}3] =$
 (a) 0 (b) 21 (c) 31 (d) 30
65. Express 1155 as the product of prime numbers.
 (a) $7 \times 11 \times 15$ (b) $3 \times 5 \times 7 \times 11$
 (c) $3 \times 5 \times 7 \times 13$ (d) $5 \times 11 \times 13$
66. The number of triangles in the adjoining figure is
 (a) 8 (b) 6
 (c) 12 (d) 10
67. Express 24 cm as a percentage of 2.5 metre?
 (a) 96% (b) 24% (c) 0.96%
 (d) 9.6%
68. Find the cost of fencing the rectangular park of sides 26 m and 24 m, if it costs Rs. 50 per metre for fencing.
 (a) Rs. 2500 (b) Rs. 500
 (c) Rs. 5000 (d) Rs. 7500



69. How many rays can you draw starting from a point.
 (a) 1 (b) 2 (c) 3 (d) many
70. Find the time 4 hours 39 minutes before 8 : 45 pm.
 (a) 4 : 06 pm (b) 3 : 06 pm (c) 5 : 06 pm (d) 5 : 06 pm
71. Dali walked 3000 m in the morning and 2 km in the evening. What is the total distance covered by Dali in km?
 (a) 4 km (b) 6 km (c) 5 km (d) 3002 km
72. A number when divided by 125 leaves a remainder 75; if the same number is divided by 25 the remainder will be
 (a) 5 (b) 10 (c) 15 (d) 0
73. The sixth term of the series, 1, 5, 13, 25, 41, ..., ... is
 (a) 61 (b) 51 (c) 71 (d) 73
74. How many tables each costing Rs. 1812 can be bought for Rs. 19932?
 (a) 12 (b) 11 (c) 16 (d) 13
75. Kajal bought a balloon for Rs. 5 and sold it for Rs. 6. Her gain percent is
 (a) 1% (b) 25% (c) 20% (d) 10%
76. There are 20 numbers. The average of first four is 25, the average of next 6 is 20 and the average of last 10 is 14. The average of all the numbers is
 (a) 36 (b) 18 (c) 19 (d) 20
77. Rs. 832 was divided between A and B in the ratio 5 : 3, then B's share is
 (a) Rs. 52 (b) Rs. 520 (c) Rs. 104 (d) Rs. 312
78. The product of two numbers is 150 and their HCF is 5, the LCM of the numbers
 (a) 25 (b) 30 (c) 15 (d) 60

79. In a spelling test given to 30 students, $\frac{5}{6}$ of the students gave correct answer. How many students made one or more mistakes?
(a) 10 (b) 5 (c) 1 (d) 3
80. My car travels 12 km for every litre of fuel. A litre for Rs. 704.25?
(a) 72 km (b) 54 km (c) 108 km (d) 216 km
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