SECTION 1
(Mental Maths Calculation)

1. $\frac{7}{25}$ = _____

(a) 0.140 (b) 0.280
(c) 0.128 (d) 0.144

2. 32 × 25 × 9 = _____

(a) 7280 (b) 7570
(c) 7200 (d) 7460

3. Average of 36, 52, 47, 38, 29, 56 is _____

(a) 43 (b) 41
(c) 45 (d) 39

4. The L.C.M. of two number is 24. If one of the number is 8 then the other number is _____

(a) 6 (b) 4
(c) 7 (d) 16

5. 1008^2 = _____

(a) 1016016 (b) 1016064
(c) 1064016 (d) 1064064

6. 874^2 = _____

(a) 752376 (b) 729376
(c) 763876 (d) 738876

7. $\sqrt{0.0144}$ = _____

(a) 1.2 (b) 0.012
(c) 0.00012 (d) 0.12

8. The bridge A is 3.728 km and bridge B is 2.57 km long. Find difference between their lengths.

(a) 1.752 km (b) 0.862 km
(c) 1.158 km (d) 0.792 km

9. $\square$ % of 80 = 56

(a) 50 (b) 60
(c) 90 (d) 70

10. How do you write $\frac{3}{25}$ as percentage.

(a) 24% (b) 18%
(c) 12% (d) 21%

11. What is a cube of 21

(a) 8641 (b) 9161
(c) 8901 (d) 9261

12. 187 + 83 = 30 × $\square$

(a) 9 (b) 10
(c) 7 (d) 8

13. By what length 41.3 km is longer than $37\frac{1}{2}$ km

(a) 2.8 km (b) 3.8 km
(c) 3.2 km (d) 2.2 km

14. Which of these numbers is multiple of 18 & 24 both

(a) 72 (b) 48
(c) 96 (d) 36

15. $30 \times 2\frac{1}{3} = \square$

(a) 60 (b) 90
(c) 70 (d) 80

16. $9^3 - 9^2 = \square$

(a) 648 (b) 598
(c) 708 (d) 628

17. The sum of two integers is 3 If one is –8, find the other.

(a) –5 (b) 11
(c) –11 (d) 5

18. If x = 3, y = 4
$(-y)^x + (x)^y = \square$

(a) 17 (b) –17
(c) – 37 (d) 37

19. Which decimal number is the same as $\frac{5}{4}$

(a) 0.75 (b) 2.5
(c) 0.25 (d) 1.25

20. A man buys a radio for ₹ 300 and sells it at profit of 30%. He sold the radio for _____

(a) 390 (b) 900
(c) 480 (d) 520

21. The sum of 7.9, 21.4 and 43.7 is

(a) 71.1 (b) 81.1
(c) 70 (d) 72

22. 288 km/h = _____ m/s

(a) 70 (b) 60
(c) 80 (d) 90

23. (32) + (–7) × (5) × (4) =

(a) –98 (b) 98
(c) –108 (d) 108

24. 24 : 3 :: x : 2
Value of x is _____

(a) 16 (b) 14
(c) 12 (d) 18

25. When a number is reduced by 5 it becomes 80% of itself. Find the number

(a) 24 (b) 25
(c) 20 (d) 18

26. If $\frac{3}{7}$ of 14 + 15% of 60 = x + 9 then x = _____

(a) 4 (b) 5
(c) 3 (d) 6

27. Which of the following number is greater than $\frac{1}{3}$?

(a) 0.037 (b) 0.298
(c) 0.401 (d) 0.304

28. $\frac{2}{5} + \frac{4}{100}$ = _____

(a) 0.04 (b) 0.44
(c) 0.24 (d) 0.4

29. 88 – $\square$ = 102

(a) 190 (b) 200
(c) 14 (d) – 14

30. 6 times of 28 – 4 times of 32

(a) 40 (b) 10
(c) 30 (d) 20

31. $\frac{8}{\sqrt{10} - \sqrt{2}}$ =

(a) $\left(\sqrt{10} - \sqrt{2}\right)^2$ (b) $8\left(\sqrt{10} + \sqrt{2}\right)$
(c) $\sqrt{10} + \sqrt{2}$ (d)None

32. If a + b = 9, $a^2 + b^2 = 35$ find a × b

(a) 23 (b) 24
(c) 25 (d) 26

33. $\frac{1}{4}$ of 216 – $\frac{1}{3}$ of 129 =

(a) 13 (b) 11
(c) 12 (d) 14

34. In how much time will ₹ 24 becomes ₹ 27 at 6¼% p.a.

(a) 2 years (b) 1½ years
(c) 1 year (d) 2½ years

35. $\frac{2}{3}$ x + 7 = 11, x = $\square$

(a) 4 (b) 9
(c) 6 (d) 12

36. What is a percentage change from 40,000 to 4,000

(a) 100% decrease (b) 10% increase
(c) 110 % increase (d) 90% decrease

37. A number 50 is divided into two parts in the ratio 3:2. Find the product of the numbers

(a) 300 (b) 600
(c) 500 (d) 400

38. 12.5% of 48 = 2 × $\square$

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

39. Area of square is 576 sq.m. Its perimeter is _____

(a) 92 m (b) 88 m
(c) 104 m (d) 96 m

40. Cirumference of circle = πd. Find the circumference when π = 3.14 and d =7 cm

(a) 22.38 cm (b) 20.68 cm
(c) 21.98 cm (d) 22.08 cm

SECTION 2
(Mental Maths Concepts)

41. What is a distance travelled in 20 min at 54 km/hr ?

(a) 27 km (b) 18 km
(c) 24 km (d) 16 km

42. Which of these numbers is equivalent to $\frac{7}{9}$?

(a) $\frac{28}{36}$ (b) $\frac{36}{28}$
(c) $\frac{28}{32}$ (d) $\frac{32}{28}$

43. 30 tins of sweetcorn are bought for ₹ 150 and sold at ₹ 7 per tin. Find profit after selling all the tins.

(a) 60% (b) 20%
(c) 40% (d) 30%

44. A boy's walking pace measures 50 cm each. How many meter has he walked after taking 40 paces.

(a) 20 cm (b) 20 m
(c) 200 m (d) 200 cm

45. An angle is one fifth of its supplement find its measure

(a) 18° (b) 36°
(c) 72° (d) 54°

46. Half of a number is added to 22 then the sum is 34. The number is ☐

(a) 18 (b) 20
(c) 22 (d) 24

47. An article costing ₹ 450 is reduced by $\frac{1}{15}$ for cash payment, The cash down price is _____

(a) 30 (b) 60
(c) 420 (d) 390

48. The area of rectangular hall is 40m². Its length is 10 m find its perimeter

(a) 28 m (b) 4 m
(c) 14 m (d) 18 m

49. Ratio of Radii of two circles is 2:3. Their circumference's ratio is _____

(a) 4:9 (b) 8:27
(c) 2:3 (d) 3:2

50. Two sums of money are in the ratio 3:4, If the second sum is 92, the first sum is _____

(a) 75 (b) 69
(c) 66 (d) 72

51. In $\frac{a}{8} + \frac{a}{2} = 15$, the value of a is _____

(a) 24 (b) 36
(c) 18 (d) 28

52. In a Δ ABC AB + BC = 10 cm BC + CA = 11 cm, CA + AB = 15 cm. The perimeter of Δ ABC is _____

(a) 19 (b) 18
(c) 16 (d) 17

53. A sum of three consecutive odd numbers is 129, find the smallest of them.

(a) 39 (b) 43
(c) 45 (d) 41

54. $\left(m^{\frac{1}{2}} \times m^{\frac{1}{4}}\right)^8 = m^{\square}$

(a) 8 (b) 2
(c) 16 (d) 6

55. $18 - [7 - \{2 - (5 - 4 - 3)\}] =$

(a) 12 (b) 13
(c) 15 (d) 8

56. Value of x in $\frac{x}{2} + 5 = 7$

(a) 2 (b) 6
(c) 4 (d) 8

57. In what time a sum will become double of itself at 25% p.a. simple interest.

(a) 4 years (b) 3 years
(c) 5 years (d) 8 years

58. The three even consecutive integers whose sum is 222. The smallest of them is ___

(a) 74 (b) 72
(c) 76 (d) 70

59. 4 taps can fill a tank in 3 hrs. How much time will be required for 6 taps to fill the tank.

(a) 1.5 hrs (b) 1 hr
(c) 2 hrs (d) 2.5 hrs

60. Find the vertex angle of an isosceles triangle if its base angle is 68°

(a) 33° (b) 44°
(c) 11° (d) 22°

SECTION 3 (Mental Maths Challenge)

61. A students has to secure 45% marks to pass. He got 71 marks and failed by 19 marks Find the maximum marks.

(a) 200 (b) 300 (c) 400 (d) 500

62. ₹ 4000 are distributed among A, B and C in the ratio of 1:3:4 the difference between the shares of A and C is _____

(a) ₹ 1000 (b) ₹ 1200 (c) ₹ 1500 (d) ₹ 1600

63. $\frac{1}{4}$ of flagpole is black, $\frac{1}{2}$ of it is white and the remaining 4 m is painted yellow. Find the length of flag pole.

(a) 12 m (b) 16 m (c) 18 m (d) 20 m

64. There were only two candidates who participated in an election. One contestant got 72% votes and was elected by a margin of 132 votes. The total number of votes were _____

(a) 300 (b) 400 (c) 500 (d) 600

65. 7 is added to a number and the sum is multiplied by 4, If 18 is subtracted from the product and the difference is divided by 6, the result is equal to 5. Find the number.

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

66. If a : b = 4 : 7 then a – b : a + b =

(a) $\frac{3}{11}$ (b) $-\frac{3}{11}$ (c) $\frac{3}{10}$ (d) $\frac{6}{10}$

67. The difference between circumference and radius of a circle is 18.5 m. The circumference of that circle is _____

(a) 35 m (b) 32 m (c) 22 m (d) 21 m

68. The difference between the length and breadth of a rectangle is 2 m. If the perimeter is 128 m, then the area is _____

(a) 1080 m² (b) 1040 m² (c) 1023 m² (d) 1032 m²

69. What is the missing term in the following product

$(3a^2 - 4)\quad (7a^2 + 5) = 21a^4 + \square - 20$

(a) $13a^2$ (b) $-13a^2$ (c) $13a^4$ (d) $-13a^4$

70. Simplify $\sqrt{125} - \sqrt{45} + \sqrt{80} - \sqrt{20}$

(a) $4\sqrt{5}$ (b) $5\sqrt{5}$ (c) $6\sqrt{5}$ (d) none of this

71. Simplify $(216)^{-\frac{2}{3}} \div (49)^{-\frac{1}{2}}$

(a) $\frac{63}{4}$ (b) $\frac{16}{5}$ (c) $\frac{36}{7}$ (d) $\frac{5}{4}$

72. Simplified value of

$3\frac{1}{5} + 3\frac{1}{8} \times 2\frac{2}{5} - \frac{1}{2} \div 2$ is $\square$

(a) $\frac{129}{20}$ (b) $\frac{213}{20}$ (c) $\frac{187}{20}$ (d) $\frac{209}{20}$

73. 20 years ago, when my parents got married, their average age was 25 years, now the average age of my family consisting of my parent & me only is 36 years. My present age is _____

(a) 16 years (b) 17 years (c) 19 years (d) 18 years

74. A number of apples are distributed among A, B and C in the ratio 2:3:5. If A gets 8 apples, then total number of apples is

(a) 40 (b) 36 (c) 42 (d) 38

75. A person travelled $\frac{2}{7}$th of the distance by train, $\frac{1}{5}$th by bus and remaining 36 km by boat. The total distance travelled by him was _____ km.

(a) 64 km (b) 68 km (c) 70 km (d) 72 km