

SECTION 1
(Mental Maths Calculation)

1. $\frac{6}{25} = \underline{\hspace{2cm}}$
 (a) 0.204 (b) 0.124
 (c) 0.24 (d) 0.58
2. $135 \times 44 \times 9 = \underline{\hspace{2cm}}$
 (a) 53460 (b) 58290
 (c) 54230 (d) 56280
3. Average of 38, 40, 42, 44, 46 is $\underline{\hspace{2cm}}$
 (a) 38 (b) 42
 (c) 40 (d) 44
4. The L.C.M. of two number is 9. If one of the number is 3 then the other number is $\underline{\hspace{2cm}}$
 (a) 8 (b) 7
 (c) 9 (d) 6
5. $1007^2 = \underline{\hspace{2cm}}$
 (a) 1014049 (b) 1014099
 (c) 1401449 (d) 114049
6. $979^2 = \underline{\hspace{2cm}}$
 (a) 959481 (b) 920391
 (c) 979171 (d) 958441
7. $\sqrt{0.0196} = \underline{\hspace{2cm}}$
 (a) 14 (b) 0.14
 (c) 1.4 (d) 0.014
8. The bridge A is 0.532 km and bridge B is 1.59 km long. Find difference between their lengths.
 (a) 0.058 km (b) 1.058 km
 (c) 1.738 km (d) 1.28 km
9. $\square\%$ of 90 = 36
 (a) 30 (b) 50
 (c) 20 (d) 40
10. How do you write $\frac{7}{20}$ as percentage.
 (a) 40% (b) 25%
 (c) 35% (d) 40%
11. What is a cube of 12
 (a) 1658 (b) 1728
 (c) 1448 (d) 1528
12. $297 + 103 = 80 \times \square$
 (a) 4 (b) 3
 (c) 2 (d) 5
13. By what length 50.6 km is longer than $45\frac{1}{2}$ km
 (a) 4.9 km (b) 4.6 km
 (c) 5.1 km (d) 5.4 km
14. Which of these numbers is multiple of 12 & 15 both 36, 75, 120, 30
 (a) 36 (b) 120
 (c) 75 (d) 30

- 15.** $30 \times 2\frac{2}{5} = \square$
 (a) 48 (b) 72
 (c) 36 (d) 96
- 16.** $8^3 - 8^2 = \square$
 (a) 438 (b) 458
 (c) 428 (d) 448
- 17.** The sum of two integers is -8
 If one is 4, find the other.
 (a) -12 (b) 12
 (c) 4 (d) -4
- 18.** If $x = 3, y = 2$
 $(-y)^x + (x)^y = \square$
 (a) 17 (b) -1
 (c) -17 (d) 1
- 19.** Which decimal number is
 the same as $\frac{3}{5}$
 (a) 0.6 (b) 0.4
 (c) 0.75 (d) 0.54
- 20.** A man buys a radio for ₹ 550
 and sells it at profit of 30%.
 He sold the radio for _____
 (a) ₹ 715 (b) ₹ 725
 (c) ₹ 705 (d) ₹ 815
- 21.** The sum of 1.9, 14.5 and
 74.795 is
 (a) 92.205 (b) 91.515
 (c) 91.195 (d) 9.195
- 22.** $108 \text{ km/h} = \text{_____ m/s}$
 (a) 40 m/s (b) 30 m/s
 (c) 20 m/s (d) 50 m/s
- 23.** $(-14) + (-4) \times (2) \times (-4) =$
 (a) 16 (b) 12
 (c) 18 (d) 20
- 24.** $12 : 4 :: x : 1$
 Value of x is _____
 (a) 3 (b) 2
 (c) 1 (d) 4
- 25.** When a number is reduced
 by 7 it becomes 80% of
 itself. Find the number
 (a) 40 (b) 25
 (c) 32 (d) 35
- 26.** If $\frac{6}{7}$ of $56 + 15\%$ of $100 =$
 $x + 39$ then $x = \text{_____}$
 (a) 14 (b) 28
 (c) 20 (d) 24
- 27.** Which of the following
 number is greater than $\frac{1}{2}$?
 (a) 0.8 (b) 0.4
 (c) 0.35 (d) 0.49

28. $\frac{7}{10} + \frac{4}{1000} = \underline{\hspace{2cm}}$
 (a) 0.740 (b) 0.704
 (c) 7.04 (d) 7.40
29. $85 - \square = 600$
 (a) -515 (b) 685
 (c) -685 (d) 515
30. 4 times of 38 – 6 times of 19
 (a) 38 (b) 30
 (c) 28 (d) 48
31. $\frac{5}{\sqrt{9} + \sqrt{4}} =$
 (a) $(\sqrt{9} + \sqrt{4})$ (b) $(\sqrt{9} + \sqrt{4})^2$
 (c) 1 (d) None
32. If $a + b = 8$, $a^2 + b^2 = 34$
 find $a \times b$
 (a) 18 (b) 15
 (c) 21 (d) 30
33. $\frac{1}{2}$ of 196 – $\frac{1}{4}$ of 96 =
 (a) 72 (b) 74
 (c) 64 (d) 84
34. In how much time will ₹ 36
 becomes ₹ 42 at $6\frac{1}{4}\%$ p.a.
 (a) $2\frac{2}{3}$ months (b) $1\frac{1}{2}$ months
 (c) $\frac{8}{4}$ years (d) $1\frac{1}{3}$ years
35. $\frac{3}{4}x + 8 = 29$, $x = \square$
 (a) -28 (b) 36
 (c) 28 (d) -36
36. What is a percentage
 change from 4,00,000 to
 10,000
 (a) 97.5% increase (b) 92% increase
 (c) 92% decrease (d) 97.5% decrease
37. A number 50 is divided into
 two parts in the ratio 3:2.
 Find the product of the
 numbers
 (a) 500 (b) 600
 (c) 400 (d) 720
38. 12.5% of 80 = $2 \times \square$
 (a) 4 (b) 3
 (c) 5 (d) 2
39. Area of square is 676 sq.m.
 Its perimeter is _____
 (a) 104 m (b) 124 m
 (c) 114 m (d) 144 m
40. Circumference of circle = πd .
 Find the circumference
 when $\pi = 3.14$ and $d = 6$ cm
 (a) 17.54 cm (b) 18.84 cm
 (c) 18.24 cm (d) 17.14 cm

SECTION 2
(Mental Maths Concepts)

- 41.** What is a distance travelled in 15 min at 64 km/hr ?
 (a) 12 km (b) 20 km
 (c) 14 km (d) 16 km
- 42.** Which of these numbers is equivalent to $\frac{8}{9}$?
 (a) $\frac{40}{54}$ (b) $\frac{48}{63}$
 (c) $\frac{48}{54}$ (d) $\frac{40}{63}$
- 43.** 30 tins of sweetcorn are bought for ₹ 180 and sold at ₹ 9 per tin. Find profit after selling all the tins.
 (a) 50% (b) 45%
 (c) 60% (d) 40%
- 44.** A boy's walking pace measures 40 cm each. How many meter has he walked after taking 60 paces.
 (a) 2400 m (b) 2400 cm
 (c) 240 m (d) 2.4 m
- 45.** An angle is one eighth of its supplement find its measure
 (a) 20° (b) 40°
 (c) 160° (d) 140°
- 46.** Half of a number is added to 28 then the sum is 46. The number is
 (a) 18 (b) 36
 (c) 28 (d) 30
- 47.** An article costing ₹ 720 is reduced by $\frac{1}{24}$ for cash payment, The cash down price is _____
 (a) ₹ 670 (b) ₹ 690
 (c) ₹ 700 (d) ₹ 680
- 48.** The area of rectangular hall is 90m^2 . Its length is 6 m find its perimeter
 (a) 42 m (b) 21 m
 (c) 30 m (d) 28 m
- 49.** Ratio of Radii of two circles is 3:7. Their circumference's ratio is _____
 (a) 4:7 (b) 6:18
 (c) 3:7 (d) 9:49

- 50.** Two sums of money are in the ratio 3:5, If the second sum is 85, the first sum is _____
- (a) ₹ 68 (b) ₹ 40
(c) ₹ 51 (d) ₹ 60
- 51.** In $\frac{a}{6} + \frac{a}{3} = 8$, the value of a is _____
- (a) 32 (b) 8
(c) 16 (d) 24
- 52.** In a ΔABC $AB + BC = 9$ cm
 $BC + CA = 15$ cm, $CA + AB = 12$ cm. The perimeter of ΔABC is _____
- (a) 18 cm (b) 20 cm
(c) 15 cm (d) 24 cm
- 53.** A sum of three consecutive odd numbers is 147, find the smallest of them.
- (a) 45 (b) 47
(c) 43 (d) 49
- 54.** $\left(m^{\frac{1}{5}} \times m^{\frac{1}{3}}\right)^{15} = m^{\square}$
- (a) 7 (b) 6
(c) 8 (d) 5
- 55.** $34 - [11 - \{2 - (1 - 6 - 5)\}] =$
- (a) -35 (b) 23
(c) 30 (d) 35
- 56.** Value of x in $\frac{x}{8} + \frac{1}{2} = 4$
- (a) 24 (b) 20
(c) 32 (d) 28
- 57.** In what time a sum will become double of itself at 20% p.a. simple interest.
- (a) 10 years (b) 4 years
(c) 5 years (d) 8 years
- 58.** The three even consecutive integers whose sum is 192. The smallest of them is _____
- (a) 64 (b) 62
(c) 60 (d) 66
- 59.** 4 taps can fill a tank in 8 hrs. How much time will be required for 16 taps to fill the tank.
- (a) 1 hrs (b) 3 hrs
(c) 2 hrs (d) 4 hrs
- 60.** Find the vertex angle of an isosceles triangle if its base angle is 55°
- (a) 70° (b) 60°
(c) 50° (d) 40°

SECTION 3 (Mental Maths Challenge)

- 61.** A fort has enough food for 740 soldiers for 30 days. If after 6 days 140 soldiers left the fort, how long will the food last now?
(a) 45 days (b) 40 days (c) 37 days (d) 42 days
- 62.** A big pipe can fill an aquarium in $\frac{1}{3}$ hr. A small pipe takes $2\frac{3}{4}$ hr to fill the same aquarium. How long will both pipe take to fill the aquarium together.
(a) $\frac{11}{37}$ hrs. (b) $\frac{10}{37}$ hrs (c) $\frac{11}{35}$ hrs (d) $\frac{12}{19}$ hrs.
- 63.** When 10 is added to $2\frac{1}{3}$ of a number, the answer is 3 times the number. Find the number.
(a) 21 (b) 18 (c) 15 (d) 24
- 64.** Numbers 64, 54, 48, 45, $5x + 10$, $2x - 8$, 12, 10, 8, 6 are written in descending order and if their median is 15, then x equal to _____
(a) 3 (b) 4 (c) 2 (d) 6
- 65.** If $A:B = 2:3$, $B:C = 1:2$ and $C:D = 3:4$ the $A:D$ equal to _____
(a) 1 : 4 (b) 1 : 3 (c) 2 : 3 (d) 1 : 5

- 66.** The largest box of shoes contains 1152 pieces. The next size box contains 288 pieces. They also sell a box with 72 pieces and one smallest box. Based on this pattern, how many pieces are there in the smallest box?
- (a) 24 (b) 12 (c) 16 (d) 18
- 67.** A man borrows ₹1000 and agrees to repay with a total interest of ₹ 140 in 10 installments. Each installment being less than the preceding by ₹ 10. What should be his 2nd installment?
- (a) ₹159 (b) ₹ 149 (c) ₹169 (d) ₹139
- 68.** 40 circular plates each of radius 8 cm and thickness $\frac{1}{2}$ cm are placed one above another to form a right circular cylinder. Find total surface area of the cylinder so formed?
- (a) 1408 cm² (b) 1332 cm² (c) 1288 cm² (d) 1498 cm²
- 69.** What should come in place of the box in the below number series.
- 5, 6, 14, 45, 184, , 5556
- (a) 835 (b) 920 (c) 925 (d) 965
- 70.** In a soccer tournament the average of goals scored in first 4 games was 5.5. The average of his next five games was 6.4. If there were 6 goals scored in the tenth game. What was the overall average?
- (a) 5 (b) 6 (c) 6.5 (d) 7

- 71.** If a tyre rotates at 120 revolutions/ min when the truck is travelling at 50 km/hr. What is the circumference of tyre?
(a) 0.00694 km (b) 0.5 km (c) 0.66 km (d) 3.4 km
- 72.** If the numerator of a fraction is increased by 200% and the denominator of the fraction is increased by 300%, the resultant fraction is $\frac{21}{32}$. Find the fraction.
(a) $\frac{2}{5}$ (b) $\frac{8}{9}$ (c) $\frac{7}{8}$ (d) $\frac{3}{14}$
- 73.** In a series 3, 7, 11, 15, what will be 11th term.
(a) 39 (b) 43 (c) 45 (d) 47
- 74.** Jack and Mac graduated from an university together. Mac has earned half of what Jac earned for 4 years. Jack spent $\frac{1}{4}$ of money, Mac spent $\frac{1}{3}$ of money every year for those 4 years. Mac has ₹ 80000 after 4 years. Find savings of Jack in 4 years
(a) ₹ 180000 (b) ₹ 240000 (c) ₹ 200000 (d) ₹ 150000
- 75.** Two glasses of juice can be extracted from half a watermelon. If two glasses can hold 500 ml of juice, how many watermelons are needed to make six liters of juice?
(a) 4 (b) 8 (c) 3 (d) 6