

- 15.** $15 \times 4\frac{1}{3} = \square$
 (a) 45 (b) 55
 (c) 65 (d) 75
- 16.** $9^3 - 5^2 = \square$
 (a) 724 (b) 694
 (c) 714 (d) 704
- 17.** The sum of two integers is -8 .
 If one is 13, find the other.
 (a) -21 (b) -5
 (c) 21 (d) 5
- 18.** If $x = 1, y = 5$
 $(-x)^y + (y)^x = \square$
 (a) 24 (b) 4
 (c) -24 (d) -4
- 19.** Which decimal number is
 the same as $\frac{2}{5}$
 (a) -0.4 (b) 2.5
 (c) 0.4 (d) -2.5
- 20.** A man buys a radio for ₹ 120
 and sells it at profit of 50%.
 He sold the radio for _____
 (a) 200 (b) 160
 (c) 170 (d) 180
- 21.** The sum of 2.3, 1.865 and
 3.7 is
 (a) 6.985 (b) 7.865
 (c) 7.685 (d) 6.895
- 22.** $90 \text{ km/h} = \underline{\hspace{2cm}} \text{ m/s}$
 (a) 25 (b) 35
 (c) 24 (d) 34
- 23.** $(-27) + (18) \times (6) \times (-3) =$
 (a) -369 (b) -359
 (c) -351 (d) -361
- 24.** $8 : 24 :: x : 6$
 Value of x is _____
 (a) 2 (b) 3
 (c) 1 (d) 4
- 25.** When a number is reduced
 by 18 it becomes 40% of
 itself. Find the number
 (a) 36 (b) 30
 (c) 32 (d) 24
- 26.** If $\frac{5}{3}$ of 18 + 25% of 64 =
 $x + 19$ then $x =$ _____
 (a) 17 (b) 23
 (c) 27 (d) 13
- 27.** Which of the following
 number is greater than $\frac{5}{4}$?
 (a) 2.1 (b) 0.9
 (c) 1.1 (d) 0.7

28. $\frac{3}{8} + \frac{12}{500} = \underline{\hspace{2cm}}$
 (a) 0.399 (b) 0.409
 (c) 0.391 (d) 0.401
29. $328 - \square = 294$
 (a) 24 (b) 34
 (c) 26 (d) 36
30. 7 times of 18 – 6 times of 11
 (a) 60 (b) 65
 (c) 70 (d) 75
31. $\frac{10}{\sqrt{17} - \sqrt{7}} =$
 (a) $10(\sqrt{12} - \sqrt{2})$ (b) $\sqrt{12} - \sqrt{2}$
 (c) $\sqrt{17} + \sqrt{7}$ (d) None
32. If $a + b = 9$, $a^2 + b^2 = 45$
 find $a \times b$
 (a) 14 (b) 18
 (c) 20 (d) 9
33. $\frac{1}{4}$ of 508 – $\frac{1}{6}$ of 204 =
 (a) 83 (b) 93
 (c) 87 (d) 97
34. In how much time will ₹ 80
 becomes ₹ 84 at $2\frac{1}{2}\%$ p.a.
 (a) 1 year (b) 3 years
 (c) 2 years (d) $1\frac{1}{2}$ years
35. $7x + 6 = 132$, $x = \square$
 (a) 14 (b) 16
 (c) 17 (d) 18
36. What is a percentage
 change from 20,000 to
 50,000
 (a) 250% decrease (b) 75% increase
 (c) 250 % increase (d) 75% decrease
37. A number 52 is divided into
 two parts in the ratio 1:3.
 Find the product of the
 numbers
 (a) 507 (b) 497
 (c) 503 (d) 493
38. 12.5% of 60 = $2.5 \times \square$
 (a) 2 (b) 3
 (c) 4 (d) 5
39. Area of square is 441 sq.m.
 Its perimeter is _____
 (a) 80 m (b) 88 m
 (c) 84 m (d) 92 m
40. Circumference of circle = πd .
 Find the circumference
 when $\pi = 3.14$ and $d = 6$ cm
 (a) 18.34 cm (b) 18.64 cm
 (c) 18.24 cm (d) 18.84 cm

SECTION 2
(Mental Maths Concepts)

- 41.** What is a distance travelled in 15 min at 100 km/hr ?
 (a) 24 km (b) 25 km
 (c) 18 km (d) 22 km
- 42.** Which of these numbers is equivalent to $\frac{32}{6}$?
 (a) $\frac{16}{3}$ (b) $\frac{18}{3}$
 (c) $\frac{11}{2}$ (d) $\frac{14}{2}$
- 43.** 40 tins of sweetcorn are bought for ₹ 2400 and sold at ₹ 60 per tin. Find profit % after selling all the tins.
 (a) 200% (b) 150%
 (c) 50% (d) 100%
- 44.** A boy's walking pace measures 50 cm each. How many meter has he walked after taking 48 paces.
 (a) 2.4 m (b) 24 m
 (c) 240 cm (d) 24 cm
- 45.** An angle is $\frac{1}{12}$ th of its supplement find its measure
 (a) 75° (b) 10°
 (c) 15° (d) 30°
- 46.** Half of a number is added to 18 then the sum is 21.2 The number is
 (a) 3.2 (b) 6.4
 (c) 3.6 (d) 6.6
- 47.** An article costing ₹ 96 is reduced by $\frac{1}{4}$ for cash payment, The cash down price is _____
 (a) 76 (b) 78
 (c) 72 (d) 80
- 48.** The area of rectangular hall is 80m^2 . Its length is 20 m find its perimeter
 (a) 48 m (b) 56 m
 (c) 42 m (d) 60 m
- 49.** Ratio of Radii of two circles is 4:1. Their circumference's ratio is _____
 (a) 1:16 (b) 16:1
 (c) 32:1 (d) 4:1

- 50.** Two sums of money are in the ratio 3:11, If the second sum is 176, the first sum is _____
- (a) 45 (b) 51
(c) 48 (d) 42
- 51.** In $\frac{a}{3} + \frac{a}{4} = 14$, the value of a is _____
- (a) 27 (b) 24
(c) 36 (d) 15
- 52.** In a ΔABC $AB + BC = 17$ cm
 $BC + CA = 12$ cm, $CA + AB = 19$ cm. The perimeter of ΔABC is _____
- (a) 24 cm (b) 28 cm
(c) 27 cm (d) 30 cm
- 53.** A sum of three consecutive odd numbers is 231, find the smallest of them.
- (a) 73 (b) 75
(c) 79 (d) 77
- 54.** $\left(m^{\frac{1}{2}} \times m^{\frac{1}{4}}\right)^{12} = m^{\square}$
- (a) 5 (b) 8
(c) 6 (d) 9
- 55.** $16 - [7 - \{8 - (3 - 2 - 9)\}] =$
- (a) 17 (b) 23
(c) 25 (d) 19
- 56.** Value of x in $\frac{x}{4} + 8 = 19$
- (a) 44 (b) 56
(c) 40 (d) 48
- 57.** In what time a sum will become double of itself at 40% p.a. simple interest.
- (a) 2 years (b) 1 year
(c) 2½ years (d) 4 years
- 58.** The three even consecutive integers whose sum is 342. The smallest of them is _____
- (a) 110 (b) 112
(c) 116 (d) 114
- 59.** 7 taps can fill a tank in 8 hrs. How much time will be required for 4 taps to fill the tank.
- (a) 12 hrs (b) 10 hrs
(c) 14 hrs (d) 16 hrs
- 60.** Find the vertex angle of an isosceles triangle if its base angle is 39°
- (a) 61° (b) 112°
(c) 92° (d) 102°

SECTION 3 (Mental Maths Challenge)

- 61.** If $a : b = 2 : 7$ then $a - b : a + b =$
- (a) $\frac{9}{5}$ (b) $\frac{-9}{5}$ (c) $\frac{-5}{9}$ (d) $\frac{5}{9}$
- 62.** The difference between circumference and radius of a circle is 37 m. The circumference of that circle is _____
- (a) 60 m (b) 46 m (c) 38 m (d) 44 m
- 63.** The difference between the length and breadth of a rectangle is 8 m. If the perimeter is 120 m, then the area is _____
- (a) 892 m^2 (b) 884 m^2 (c) 876 m^2 (d) 862 m^2
- 64.** What is the missing term in the following product
- $$(4a^3 + 7) (2a^3 - 5) = 8a^6 + \boxed{} + 35$$
- (a) $-6 a^3$ (b) $6 a^3$ (c) $4a^3$ (d) $-4 a^3$
- 65.** Simplify $\sqrt{300} - \sqrt{108} + \sqrt{75} - \sqrt{243}$
- (a) $\sqrt{3}$ (b) $2\sqrt{3}$ (c) 0 (d) $-\sqrt{3}$

66. Simplify $(125)^{\frac{1}{3}} \div (32)^{\frac{3}{5}}$
- (a) $-\frac{5}{8}$ (b) $\frac{-8}{5}$ (c) $\frac{8}{5}$ (d) $\frac{5}{8}$
67. Simplified value of $5\frac{2}{3} + 3\frac{1}{2} \times 2\frac{1}{5} - 7\frac{1}{3}$ is
- (a) $\frac{161}{30}$ (b) $\frac{193}{30}$ (c) $\frac{181}{30}$ (d) $\frac{167}{30}$
68. 21 years ago, when my parents got married, their average age was 24 years, now the average age of my family consisting of my parent & me only is 36 years. My present age is _____
- (a) 17 years (b) 18 years (c) 19 years (d) 20 years
69. A number of apples are distributed among A, B and C in the ratio 3:5:7. If A gets 36 apples, then total number of apples is
- (a) 180 (b) 172 (c) 168 (d) 187
70. A person travelled $\frac{1}{2}$ of the distance by train, $\frac{1}{3}$ rd by bus and remaining 7 km by boat. The total distance travelled by him was _____ km.
- (a) 28 km (b) 32 km (c) 36 km (d) 42 km

- 71.** A fort has enough food for 720 soldiers for 35 days. If after 5 days 120 soldiers left the fort, how long will the food last now?
(a) 28 days (b) 36 days (c) 30 days (d) 33 days
- 72.** A big pipe can fill an aquarium in 1 hr. A small pipe takes 2 hrs to fill the same aquarium. How long will both pipe take to fill the aquarium together.
(a) $\frac{2}{3}$ hrs (b) $\frac{1}{4}$ hrs (c) $\frac{3}{4}$ hrs (d) $\frac{1}{3}$ hrs.
- 73.** When 18 is added to $2\frac{1}{2}$ of a number, the answer is 4 times the number. Find the number.
(a) 14 (b) 12 (c) 16 (d) 20
- 74.** Numbers 40, 36, 32, 24, $2x + 6$, $3x + 1$, 9, 8, 6, 5 are written in descending order and if their median is 11, then x equal to _____
(a) 12 (b) 8 (c) 3 (d) 10
- 75.** If $A:B = 1:3$, $B:C = 1:2$ and $C:D = 2:5$ the $A:D$ equal to _____
(a) 1 : 5 (b) 4 : 15 (c) 3 : 5 (d) 1 : 15