SECTION 1
(Mental Maths Calculation)

1. $\dfrac{7}{20}$ = _____

(a) 3.5   (b) 3.05

(c) 0.035   (d) 0.35

2. 130 × 15 × 7 = _____

(a) 13650   (b) 15650

(c) 16350   (d) 13605

3. Average of 35, 37, 39, 41, 43 is _____

(a) 41   (b) 36

(c) 39   (d) 35

4. The L.C.M. of two number is 36. If one of the number is 18 then the other number is _____

(a) 6   (b) 2

(c) 3   (d) 12

5. 1016^2 = _____

(a) 1021000   (b) 1032256

(c) 1200100   (d) 1002100

6. 997^2 = _____

(a) 949009   (b) 994029

(c) 994009   (d) 994039

7. $\sqrt{0.0064}$ = _____

(a) 0.08   (b) 0.8

(c) 0.008   (d) 6.4

8. The bridge A is 0.364 km and bridge B is 1.64 km long. Find difference between their lengths.

(a) 2.276   (b) 1.276

(c) 12.76   (d) 1.0276

9. ☐ % of 90 = 54

(a) 50   (b) 80

(c) 70   (d) 60

10. How do you write $\dfrac{6}{30}$ as percentage.

(a) 30%   (b) 70%

(c) 20%   (d) 60%

11. What is a cube of 13

(a) 2197   (b) 2917

(c) 2179   (d) 2791

12. 209 + 191 = 40 × ☐

(a) 15   (b) 10

(c) 20   (d) 25

13. By what length 48.4 km is longer than $42\dfrac{1}{2}$ km

(a) 0.59 km   (b) 5.09 km

(c) 6.1 km   (d) 5.9 km

14. Which of these numbers is multiple of 12 & 14 both

(a) 72   (b) 112

(c) 84   (d) 98

15. $60 \times 2\frac{3}{4} = \boxed{}$

(a) 146   (b) 156

(c) 155   (d) 165

16. $9^3 - 7^2 = \boxed{}$

(a) 680   (b) 9

(c) 18   (d) 810

17. The sum of two integers is – 9 is one is 3, find the other.

(a) 12   (b) 6

(c) –12   (d) – 6

18. If x = 2, y = 3

$(-x)^y + (y)^x = \boxed{}$

(a) 4   (b) 1

(c) – 6   (d) 6

19. Which decimal number is the same as $\frac{7}{20}$

(a) 0.35   (b) 0.035

(c) 7.20   (d) 0.27

20. A man buys a radio for ₹ 650 and sells it at profit of 20%. He sold the radio for _____

(a) 780   (b) 770

(c) 760   (d) 740

21. The sum of 1.3, 12.8 and 59.784 is

(a) 738.4   (b) 73.884

(c) 7.384   (d) 73.848

22. 720 km/h = _____ m/s

(a) 250   (b) 150

(c) 100   (d) 200

23. (–72) + (–8) × (9) × (– 3) =

(a) –288   (b) 234

(c) 144   (d) –144

24. 54 : 36 :: x : 2

Value of x is _____

(a) 12   (b) 8

(c) 15   (d) 3

25. When a number is reduced by 7 it becomes 75% of itself. Find the number

(a) 35   (b) 42

(c) 28   (d) 56

26. If $\frac{2}{3}$ of 51 + 15% of 120 = x + 49 then x = _____

(a) 3   (b) 4

(c) 5   (d) 6

27. Which of the following number is greater than $\frac{4}{5}$?

(a) 0.65   (b) 0.85

(c) 0.7   (d) 0.75

28. $\dfrac{3}{10} + \dfrac{9}{1000} = \underline{\hspace{2cm}}$

(a) 30.9 (b) 0.39
(c) 0.309 (d) 3.09

29. $68 - \boxed{} = -364$

(a) 296 (b) – 296
(c) – 432 (d) 432

30. 4 times of 67 – 5 times of 49

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

31. $\dfrac{6}{\sqrt{18} + \sqrt{12}} =$

(a) $\left(\sqrt{18 - 12}\right)$ (b) $6\left(\sqrt{18 - 12}\right)$
(c) $\left(\sqrt{18} - \sqrt{12}\right)$ (d) $6\left(\sqrt{18} + \sqrt{12}\right)$

32. If a + b = 13, a² + b² = 85 find a × b

(a) 42 (b) 48
(c) 46 (d) 38

33. $\dfrac{1}{2}$ of 268 – $\dfrac{1}{3}$ of 69 =

(a) 81 (b) 111
(c) 108 (d) 93

34. In what times will ₹ 60 becomes ₹ 67 at $3\frac{1}{3}$% p.a.

(a) $3\frac{1}{4}$ yrs. (b) $3\frac{1}{2}$ yrs.
(c) $3\frac{2}{3}$ yrs. (d) $2\frac{1}{3}$ yrs.

35. $\dfrac{4}{3}$ x + 9 = 93, x = $\boxed{}$

(a) 65 (b) 36
(c) 63 (d) 68

36. What is a percentage change from 1,40,000 to 2,38,000

(a) 70% increase (b) 30% decrease
(c) 70% decrease (d) None

37. A number 52 is divided into two parts in the ratio 9:4. Find the product of the numbers

(a) 765 (b) 675
(c) 576 (d) 756

38. 12.5% of 208 = 2 × $\boxed{}$

(a) 16 (b) 18
(c) 11 (d) 13

39. Area of square is 121 sq.m. Its perimeter is _____

(a) 11 m (b) 44 m
(c) 22 m (d) 33 m

40. Cirumference of circle = πd. Find the circumference when π = 3.14 and d = 5cm

(a) 19.2 (b) 18.6
(c) 13.4 (d) 15.7

SECTION 2
(Mental Maths Concepts)

41. What is a distance travelled in 12 min at 55 km/hr ?

(a) 11 km   (b) 9 km

(c) 18 km   (d) 15 km

42. Which of these numbers is equivalent to $\dfrac{8}{5}$?

(a) $\dfrac{27}{54}$ (b) $\dfrac{72}{45}$

(c) $\dfrac{34}{15}$ (d) $\dfrac{45}{72}$

43. 27 tins of sweetcorn are bought for ₹378 and sold at ₹ 21 per tin. Find profit after selling all the tins.

(a) 45%   (b) 65%

(c) 40%   (d) 50%

44. A boy's walking pace measures 25 cm. How many meter has he walked after taking 20 paces.

(a) 50 cm   (b) 50 m

(c) 5 m   (d) 5000 cm

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

(a) 45°   (b) 20°

(c) 40°   (d) 35°

46. Half of a number is added to 15 then the sum is 51. The number is ☐

(a) 54   (b) 48

(c) 68   (d) 72

47. An article costing ₹ 640 is reduced by $\dfrac{1}{16}$ for cash payment, The cash down price is _____

(a) 620   (b) 600

(c) 650   (d) 580

48. The area of hall is 121m². Its length is 8 m find its perimeter

(a) 45 m   (b) 46.25 m

(c) 52.25 m   (d) 48 m

49. Ratio of Radii of two circles is 5:8. Their circumference's ratio is _____

(a) 25:64   (b) 15:24

(c) 64:25   (d) 24:15

50. Two sums of money are in the ratio 3:7, If the second sum is 105, the first sum is _____

(a) 54   (b) 48

(c) 42   (d) 45

51. In $\dfrac{a}{5} + \dfrac{a}{3} = 8$, the value of a is _____

(a) – 5   (b) –15

(c) 15   (d) 5

52. In a Δ ABC AB + BC = 18 cm BC + CA = 22 cm, CA + AB = 28 cm. The perimeter of Δ ABC is _____

(a) 38   (b) 34

(c) 20   (d) 28

53. A sum of three consecutive odd numbers is 123, find the smallest of them

(a) 39   (b) 37

(c) 42   (d) 34

54. $\left(m^{\frac{2}{3}} \times m^{\frac{4}{3}} \right)^2 = m^{\square}$

(a) 2   (b) 3

(c) 4   (d) 8

55. $31 – [14 – \{6 – (2 – 4 – 5)\}] =$

(a) 30   (b) 18

(c) – 30   (d) – 18

56. Value of x in $\dfrac{x}{4} + \dfrac{7}{2} = 12$

(a) 17   (b) – 34

(c) 34   (d) – 17

57. In what time a sum will become double of itself at 4% p.a. simple interest.

(a) 25 years   (b) 16 years

(c) 50 years   (d) 30 years

58. The three even consecutive integers whose sum is 90. The smallest of them is ___

(a) 26   (b) 22

(c) 24   (d) 28

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

(a) 8 hrs   (b) 1 hr

(c) 4 hrs   (d) 3 hrs

60. Find the vertex angle of an isosceles triangle if its base angle is 70°

(a) 20°   (b) 40°

(c) 110°   (d) 130°

SECTION 3 (Mental Maths Challenge)

61. If a tyre rotates at 300 revolutions/ min when the truck is travelling at 50 km/hr. What is the circumference of tyre?

  (a)   0.0277   (b)   0.277   (c)   2.77   (d)   0.0027

62. If the numerator of a fraction is increased by 200% and the denominator of the fraction is increased by 150%, the resultant fraction is $\dfrac{9}{35}$. Find the fraction

  (a) $\dfrac{140}{27}$ (b) $\dfrac{70}{3}$ (c) $\dfrac{27}{140}$ (d) $\dfrac{3}{70}$

63. In a series 3, 7, 11, 15, ... what will be 12th term.

  (a)   49   (b)   47   (c)   51   (d)   45

64. Maria and Sanika graduated from university together. Sanika has earned half what Maria earned for 5 years. Maria spent 1/3 of money, Sanika spent 1/4 money for those 5 years. Sanika has ₹ 90000 after 5 years. Find how much did Maria Save.

  (a)   1,60,000   (b)   16000   (c)   106000   (d)   250000

65. Two glasses of juice be extracted from half a watermelon. If two glasses can hold 500 ml of juice, how many watermelons are needed to make five liters of juice?

  (a)   4   (b)   5   (c)   8   (d)   20

66. Three times a number is 225 more than 50% of the same number. What is this number.

(a)   337.5   (b)   150   (c)   90   (d)   45.5

67. There are 6000 people in a town at the beginning of 2004, Each year, there is 20% increases in the population as new babies are born. At the same times $\frac{1}{20}$ of the population passes away each year. Calculate population at beginning of 2006.

(a)   9375   (b)   9735   (c)   7395   (d)   7935

68. On a farm, there are 40% as many ducks as goats and twice as many cows as ducks. If all the animals have a total of 400 legs, how many ducks ar there on the farm?

(a)   20   (b)   30   (c)   40   (d)   50

69. Raja, John and Jack took part in a race. They drove at speeds of 96 km/hr 1.5 km/min and 1650 m/min. How much faster was the speed of the winner than the person who came third, in km/hr.

(a)   3 km/hr   (b)   6 km/hr   (c)   9 km/hr   (d)   12 km/hr

70. The sum of two numbers is 3x. If one number is $\frac{5}{4}$ of the other. Find the value of bigger number.

(a) $\frac{3x}{5}$ (b) $\frac{3x}{4}$ (c) $\frac{5x}{3}$ (d) $\frac{4x}{3}$

71. The value of a numerator is 9 less than its denominator.

When 5.5 is subtracted from its denominator, the value of fraction

becomes $\dfrac{2}{3}$. What is a original fraction.

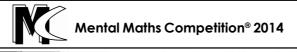(a) $\dfrac{16}{7}$ (b) $\dfrac{9}{16}$ (c) $\dfrac{4}{16}$ (d) $\dfrac{7}{16}$

72. 800 people attended Global International Maths Competition.
75% of them were students. 70% were Europians students.
The ratio of number of Indian student to the number of chinese
students was 1:2 how many chinese students were there.

(a)   175   (b)   120   (c)   160   (d)   150

73. Mr. Prabhu travels 390 km in 6 hrs. How long will he take to travel
0.65 km.

(a)   3.6 sec   (b)   36 sec   (c)   3.6 min   (d)   36 min

74. A square has an area of 8649 cm². If a triangle of base 0.58 m and
height 0.64m is cut from it, find the area of remaining square.

(a)   6793 cm²   (b)   6581 cm²   (c)   8651 cm²   (d)   8561 cm²

75. A tin of oil has a mass of 4 kg when it $\dfrac{3}{4}$ full. It has a mass of 3.25 kg.

When it is $\dfrac{3}{5}$ full. Find the mass of the tin.

(a)   500 gm   (b)   4 kg   (c)   5 kg   (d)   250 gm

MENTAL MATHS COMPETITION®

Date : _____

Name of Student in Full (IN CAPITAL LETTERS) :-

_____
Name

_____
Father's Name

_____
Surname

School Name _____

Mobile No. _____

Std. _____ Centre _____

INSTRUCTIONS

1. Use HB Pencil only on this sheet
2. Darken the ovals fully.
3. Erase completely to change responses.
4. Do not make any stray mark on this sheet.

Incorrect way of shading
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ANSWERS

Section - I

1.	Ⓐ Ⓑ Ⓒ Ⓓ	21.	Ⓐ Ⓑ Ⓒ Ⓓ
2.	Ⓐ Ⓑ Ⓒ Ⓓ	22.	Ⓐ Ⓑ Ⓒ Ⓓ
3.	Ⓐ Ⓑ Ⓒ Ⓓ	23.	Ⓐ Ⓑ Ⓒ Ⓓ
4.	Ⓐ Ⓑ Ⓒ Ⓓ	24.	Ⓐ Ⓑ Ⓒ Ⓓ
5.	Ⓐ Ⓑ Ⓒ Ⓓ	25.	Ⓐ Ⓑ Ⓒ Ⓓ
6.	Ⓐ Ⓑ Ⓒ Ⓓ	26.	Ⓐ Ⓑ Ⓒ Ⓓ
7.	Ⓐ Ⓑ Ⓒ Ⓓ	27.	Ⓐ Ⓑ Ⓒ Ⓓ
8.	Ⓐ Ⓑ Ⓒ Ⓓ	28.	Ⓐ Ⓑ Ⓒ Ⓓ
9.	Ⓐ Ⓑ Ⓒ Ⓓ	29.	Ⓐ Ⓑ Ⓒ Ⓓ
10.	Ⓐ Ⓑ Ⓒ Ⓓ	30.	Ⓐ Ⓑ Ⓒ Ⓓ
11.	Ⓐ Ⓑ Ⓒ Ⓓ	31.	Ⓐ Ⓑ Ⓒ Ⓓ
12.	Ⓐ Ⓑ Ⓒ Ⓓ	32.	Ⓐ Ⓑ Ⓒ Ⓓ
13.	Ⓐ Ⓑ Ⓒ Ⓓ	33.	Ⓐ Ⓑ Ⓒ Ⓓ
14.	Ⓐ Ⓑ Ⓒ Ⓓ	34.	Ⓐ Ⓑ Ⓒ Ⓓ
15.	Ⓐ Ⓑ Ⓒ Ⓓ	35.	Ⓐ Ⓑ Ⓒ Ⓓ
16.	Ⓐ Ⓑ Ⓒ Ⓓ	36.	Ⓐ Ⓑ Ⓒ Ⓓ
17.	Ⓐ Ⓑ Ⓒ Ⓓ	37.	Ⓐ Ⓑ Ⓒ Ⓓ
18.	Ⓐ Ⓑ Ⓒ Ⓓ	38.	Ⓐ Ⓑ Ⓒ Ⓓ
19.	Ⓐ Ⓑ Ⓒ Ⓓ	39.	Ⓐ Ⓑ Ⓒ Ⓓ
20.	Ⓐ Ⓑ Ⓒ Ⓓ	40.	Ⓐ Ⓑ Ⓒ Ⓓ

Section - II

41.	Ⓐ Ⓑ Ⓒ Ⓓ
42.	Ⓐ Ⓑ Ⓒ Ⓓ
43.	Ⓐ Ⓑ Ⓒ Ⓓ
44.	Ⓐ Ⓑ Ⓒ Ⓓ
45.	Ⓐ Ⓑ Ⓒ Ⓓ
46.	Ⓐ Ⓑ Ⓒ Ⓓ
47.	Ⓐ Ⓑ Ⓒ Ⓓ
48.	Ⓐ Ⓑ Ⓒ Ⓓ
49.	Ⓐ Ⓑ Ⓒ Ⓓ
50.	Ⓐ Ⓑ Ⓒ Ⓓ
51.	Ⓐ Ⓑ Ⓒ Ⓓ
52.	Ⓐ Ⓑ Ⓒ Ⓓ
53.	Ⓐ Ⓑ Ⓒ Ⓓ
54.	Ⓐ Ⓑ Ⓒ Ⓓ
55.	Ⓐ Ⓑ Ⓒ Ⓓ
56.	Ⓐ Ⓑ Ⓒ Ⓓ
57.	Ⓐ Ⓑ Ⓒ Ⓓ
58.	Ⓐ Ⓑ Ⓒ Ⓓ
59.	Ⓐ Ⓑ Ⓒ Ⓓ
60.	Ⓐ Ⓑ Ⓒ Ⓓ

Section - III

61.	Ⓐ Ⓑ Ⓒ Ⓓ
62.	Ⓐ Ⓑ Ⓒ Ⓓ
63.	Ⓐ Ⓑ Ⓒ Ⓓ
64.	Ⓐ Ⓑ Ⓒ Ⓓ
65.	Ⓐ Ⓑ Ⓒ Ⓓ
66.	Ⓐ Ⓑ Ⓒ Ⓓ
67.	Ⓐ Ⓑ Ⓒ Ⓓ
68.	Ⓐ Ⓑ Ⓒ Ⓓ
69.	Ⓐ Ⓑ Ⓒ Ⓓ
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71.	Ⓐ Ⓑ Ⓒ Ⓓ
72.	Ⓐ Ⓑ Ⓒ Ⓓ
73.	Ⓐ Ⓑ Ⓒ Ⓓ
74.	Ⓐ Ⓑ Ⓒ Ⓓ
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