🔵 NACT Class 8 – Maths Practice Set (100 MCQs with Answers)

Section 1: Logical Reasoning (25 Questions)

1. What comes next in the pattern: 2, 4, 8, 16, ___?
   a) 18   b) 20   c) 32   d) 24
   ✅ Answer: c

2. Find the odd one out: 9, 16, 25, 35, 49
   a) 16   b) 25   c) 35   d) 49
   ✅ Answer: c

3. If MONDAY is coded as NPOEBZ, how is FRIDAY coded?
   a) GSJEBZ   b) FQJEBZ   c) GSJEBZ   d) HRKEBZ
   ✅ Answer: c

4. In a certain code, STAR = 8910, TRAP = 9103. What is the code for PART?
   a) 3109   b) 3910   c) 1039   d) 3108
   ✅ Answer: a

5. A is taller than B, B is taller than C, and D is shorter than C. Who is the shortest?
   a) A   b) B   c) C   d) D
   ✅ Answer: d

6. Which Venn diagram shows the relationship between Pen, Stationery, Pencil?
   a) All overlapping   b) Pen & Pencil inside Stationery
   c) No overlap   d) Pen & Pencil outside Stationery
   ✅ Answer: b

7. How many diagonals can a hexagon have?
   a) 6   b) 9   c) 12   d) 15
   ✅ Answer: c

8. Which figure has both line symmetry and rotational symmetry?
   a) Rectangle   b) Scalene Triangle   c) Circle   d) Trapezium
   ✅ Answer: c

9. If A = 1, Z = 26, what is the sum of values of D, O, G?
   a) 24   b) 26   c) 27   d) 30
   ✅ Answer: b

10. Which number replaces the question mark? 4, 9, 19, 39, ?
    a) 59   b) 69   c) 79   d) 89
    ✅ Answer: c

11. A clock shows 3:15. What is the angle between the hour and minute hands?
    a) 0°   b) 7.5°   c) 15°   d) 22.5°
    ✅ Answer: d

12. If $3x + 4 = 19$, what is the value of x?
    a) 3   b) 4   c) 5   d) 6
    ✅ Answer: c

13. Which is different: Square, Rectangle, Circle, Triangle?
    a) Square   b) Rectangle   c) Circle   d) Triangle
    ✅ Answer: c

14. Which term will replace the question mark: 2, 5, 10, 17, ?
    a) 24   b) 25   c) 26   d) 27
    ✅ Answer: a

15. If TABLE = UBCMF, then CHAIR = ?
    a) DIBJS   b) DBHJS   c) DIBKR   d) DIBIR
    ✅ Answer: a

16. Count the triangles in this figure: ▲▲▲
    a) 3   b) 6   c) 9   d) 12
    ✅ Answer: b

17. Find the missing number: 7, 14, 28, 56, ?
    a) 84   b) 98   c) 112   d) 126
    ✅ Answer: c

18. A boy is facing north. He turns 90° right, then 180° left. Which direction is he

facing?
a) North   b) East   c) West   d) South
✅ Answer: c

19. Odd one out: 121, 144, 169, 196, 225
a) 121   b) 144   c) 169   d) 196
✅ Answer: b

20. If CAT = 3120, DOG = 4157, then BAT = ?
a) 2120   b) 2130   c) 3121   d) 3130
✅ Answer: b

21. Mirror image of BOWL is:
a) ꟻWOB   b) LOWB   c) WOBL   d) ꟻLOW
✅ Answer: a

22. Which number continues the series: 2, 6, 12, 20, ?
a) 28   b) 30   c) 32   d) 36
✅ Answer: a

23. Which shape is different: Cube, Sphere, Cylinder, Square?
a) Cube   b) Sphere   c) Cylinder   d) Square
✅ Answer: d

24. If ALL = 25, BALL = 27, CALL = ?
a) 29   b) 28   c) 30   d) 31
✅ Answer: c

25. Which is the odd one out: Mango, Banana, Apple, Potato?
a) Mango   b) Banana   c) Apple   d) Potato
✅ Answer: d

🔢 Section 2: Mathematical Reasoning (25 Questions)

26. The value of $2^3 + 3^2$ is:
a) 13   b) 17   c) 18   d) 19
✅ Answer: b

27. If $5x - 7 = 18$, then x = ?
a) 4   b) 5   c) 6   d) 7
✅ Answer: c

28. Find the HCF of 36 and 48.
a) 6   b) 12   c) 18   d) 24
✅ Answer: b

29. $(3a^2 - 2a + 4) + (2a^2 + 5a - 6) = ?$
a) $5a^2 + 3a - 2$ b) $5a^2 + 7a - 2$
c) $5a^2 + 3a + 10$ d) $6a^2 + 3a - 2$
✅ Answer: b

30. A number is divisible by both 3 and 4. It must also be divisible by:
a) 6   b) 7   c) 12   d) 8
✅ Answer: c

31. The square root of 121 is:
a) 10   b) 11   c) 12   d) 13
✅ Answer: b

32. Find the value of $2/5 \div 4/7$
a) 7/10   b) 8/35   c) 14/20   d) 35/8
✅ Answer: a

33. A triangle with sides 5 cm, 5 cm, and 8 cm is:
a) Equilateral   b) Isosceles   c) Scalene   d) Right-angled
✅ Answer: b

34. Solve: $(2x - 3)(x + 4) = 0$. One of the roots is:
a) x = 2   b) x = 3   c) x = -4   d) x = 0
✅ Answer: c

35. If $x + y = 10$ and $x - y = 2$, then x = ?
a) 4   b) 5   c) 6   d) 8
✅ Answer: c

36. If a cylinder has radius 3 cm and height 7 cm, its volume is:
a) 198 cm³   b) 66 cm³   c) 63 cm³   d) 231 cm³
✅ Answer: d

37. Which is a rational number?
a) √2   b) π   c) 0.75   d) e
✅ Answer: c

38. What is the cube of 4?
    a) 12   b) 64   c) 32   d) 16
    ✅ Answer: b

39. The sum of interior angles of a pentagon is:
    a) 360°   b) 540°   c) 720°   d) 900°
    ✅ Answer: b

40. If 8x = 64, then x = ?
    a) 6   b) 7   c) 8   d) 9
    ✅ Answer: c

41. Simplify: 15% of 200 + 25% of 400
    a) 155   b) 165   c) 170   d) 180
    ✅ Answer: d

42. What is the perimeter of a square with side 9 cm?
    a) 27 cm   b) 36 cm   c) 45 cm   d) 54 cm
    ✅ Answer: b

43. Convert 0.6 into a fraction.
    a) 3/10   b) 2/3   c) 3/5   d) 5/6
    ✅ Answer: c

44. If $7^2 - 5^2$ = ?
    a) 12   b) 22   c) 24   d) 48
    ✅ Answer: c

45. Evaluate: (20 ÷ 4) × (15 ÷ 3)
    a) 20   b) 25   c) 30   d) 35
    ✅ Answer: b

46. If $2^3 \times 2^2$ = ?
    a) 2^6 b) 2^5 c) 2^4 d) 2^3
    ✅ Answer: b

47. The area of a rectangle with length 12 cm and breadth 8 cm is:
    a) 96 cm²   b) 88 cm²   c) 100 cm²   d) 92 cm²
    ✅ Answer: a

48. $5^2 + 12^2$ = ?
    a) 169   b) 144   c) 169   d) 125
    ✅ Answer: a

49. Find LCM of 18 and 24.
    a) 36   b) 72   c) 48   d) 54
    ✅ Answer: b

50. If √x = 15, then x = ?
    a) 125   b) 225   c) 200   d) 250
    ✅ Answer: b

📑 **Section 3: Everyday Mathematics (25 Questions)**

51. If a T-shirt costs ₹250 and there is 10% discount, what is the selling price?
    a) ₹225   b) ₹240   c) ₹245   d) ₹230
    ✅ Answer: a

52. If 1 USD = ₹83, what is the value of $7 in INR?
    a) ₹581   b) ₹561   c) ₹551   d) ₹611
    ✅ Answer: a

53. A train travels 180 km in 3 hours. What is its speed?
    a) 50 km/h   b) 60 km/h   c) 70 km/h   d) 90 km/h
    ✅ Answer: b

54. Rani buys 3 notebooks for ₹45. What is the cost of one notebook?
    a) ₹10   b) ₹12   c) ₹15   d) ₹18
    ✅ Answer: c

55. What is the simple interest on ₹2000 for 2 years at 5% p.a.?
    a) ₹150   b) ₹200   c) ₹250   d) ₹180
    ✅ Answer: b

56. If a shopkeeper gains 10% on selling an item of ₹900, the profit is:
    a) ₹90   b) ₹80   c) ₹70   d) ₹100
    ✅ Answer: a

57. A class has 40 students. 25% are girls. How many girls?

a) 10   b) 15   c) 20   d) 25

✅ Answer: a

58. Temperature fell from 10°C to -2°C. What is the fall?
a) 12°C   b) 8°C   c) 10°C   d) 6°C

✅ Answer: a

59. Electricity bill per unit is ₹6. For 120 units, bill is:
a) ₹700   b) ₹720   c) ₹750   d) ₹680

✅ Answer: b

60. If 15% of a number is 45, then the number is:
a) 200   b) 300   c) 250   d) 400

✅ Answer: b

61. Area of square of side 8 cm:
a) 32 cm²   b) 64 cm²   c) 48 cm²   d) 80 cm²

✅ Answer: b

62. A car travels 60 km in 1.5 hours. Average speed?
a) 40 km/h   b) 45 km/h   c) 50 km/h   d) 55 km/h

✅ Answer: b

63. If cost price is ₹500 and loss is 20%, what is selling price?
a) ₹400   b) ₹420   c) ₹450   d) ₹480

✅ Answer: a

64. 1 Litre = ? mL
a) 10   b) 100   c) 1000   d) 10000

✅ Answer: c

65. A man earns ₹8000 per month and spends ₹6000. His savings % is:
a) 20%   b) 25%   c) 30%   d) 35%

✅ Answer: b

66. If cost of 12 pens is ₹96, cost of 1 pen is:
a) ₹6   b) ₹7   c) ₹8   d) ₹9

✅ Answer: c

67. A car runs 15 km on 1 litre petrol. How much distance on 8 litres?
a) 100 km   b) 110 km   c) 120 km   d) 130 km

✅ Answer: c

68. Selling price is ₹720, gain is 20%. Find cost price.
a) ₹600   b) ₹620   c) ₹650   d) ₹700

✅ Answer: a

69. Area of circle with radius 7 cm (π = 22/7).
a) 154 cm²   b) 144 cm²   c) 164 cm²   d) 150 cm²

✅ Answer: a

70. A man deposited ₹5000 in a bank at 10% SI for 2 years. Interest?
a) ₹800   b) ₹900   c) ₹1000   d) ₹1100

✅ Answer: c

71. ¾ of 200 = ?
a) 100   b) 120   c) 140   d) 150

✅ Answer: c

72. If perimeter of a square is 48 cm, find side.
a) 10 cm   b) 11 cm   c) 12 cm   d) 13 cm

✅ Answer: c

73. A train crosses a pole in 10 sec at 36 km/h. Find length of train.
a) 80 m   b) 90 m   c) 100 m   d) 120 m

✅ Answer: c

74. Cost of 5 chairs = ₹1500, cost of 1 chair?
a) ₹250   b) ₹300   c) ₹350   d) ₹400

✅ Answer: b

75. 40% of 250 = ?
a) 80   b) 90   c) 95   d) 100

✅ Answer: b

🧠 **Section 4: Achievers (HOTS) (25 Questions)**

76. A person sold an article at 20% gain. If cost price was ₹250, what was the selling

price?
a) ₹300   b) ₹275   c) ₹260   d) ₹270
✅ Answer: b

77. A triangle has two equal angles of 70°.
The third angle is:
a) 40°   b) 30°   c) 20°   d) 45°
✅ Answer: c

78. If the ratio of boys to girls is 3:5 and total
students are 80, number of boys is:
a) 30   b) 40   c) 48   d) 50
✅ Answer: a

79. Which has more volume: Cube of 5 cm or
Cylinder of radius 3 cm and height 5 cm?
a) Cube   b) Cylinder   c) Both equal   d)
Can't be determined
✅ Answer: a

80. Solve: $(x - 2)^2 = 9$
a) x = 5 or -1   b) x = 4 or 2   c) x = 3 or -3
d) x = 2 or -2
✅ Answer: a

81. If 2 men can complete a task in 10 days,
how many days will 4 men take?
a) 20   b) 10   c) 5   d) 8
✅ Answer: c

82. A cube has volume 216 cm³. What is its
side?
a) 6 cm   b) 8 cm   c) 9 cm   d) 7 cm
✅ Answer: a

83. If x : y = 4 : 5, then (3x + 2y) : (2x + 3y) = ?
a) 22:23   b) 22:25   c) 23:24   d) 26:29
✅ Answer: b

84. A shopkeeper gives 10% discount and still
gains 8%. Marked price of ₹1000. Cost
price?
a) ₹920   b) ₹850   c) ₹830   d) ₹800
✅ Answer: d

85. If 25% of a number is 75, what is 50% of
that number?

a) 100   b) 120   c) 150   d) 200
✅ Answer: c

86. A boat goes 6 km downstream in 1 hr
and 4 km upstream in 1 hr. Speed of boat
in still water?
a) 4 km/h   b) 5 km/h   c) 6 km/h   d) 7
km/h
✅ Answer: b

87. If $(x^2 - 16) = 0$, find x.
a) ±2   b) ±3   c) ±4   d) ±5
✅ Answer: c

88. Average of first 10 natural numbers?
a) 4.5   b) 5   c) 5.5   d) 6
✅ Answer: c

89. If area of rectangle = 48 cm², length = 12
cm, find breadth.
a) 3 cm   b) 4 cm   c) 5 cm   d) 6 cm
✅ Answer: b

90. Solve: 3(x − 4) = 18.
a) x = 6   b) x = 8   c) x = 10   d) x = 12
✅ Answer: b

91. If perimeter of equilateral triangle is 45
cm, find side.
a) 12 cm   b) 13 cm   c) 14 cm   d) 15 cm
✅ Answer: d

92. The compound interest on ₹1000 at 10%
p.a. for 2 years is:
a) ₹200   b) ₹210   c) ₹220   d) ₹230
✅ Answer: b

93. A sum becomes ₹1440 at 8% SI in 4
years. Find principal.
a) ₹1200   b) ₹1250   c) ₹1300   d)
₹1350
✅ Answer: a

94. If x = 5, evaluate $2x^2 + 3x - 7$.
a) 58   b) 52   c) 48   d) 46
✅ Answer: b

95. Which is greater: (3/4) of 200 or (2/5) of 400?
a) First   b) Second   c) Both equal   d) None
✅ Answer: a

96. Area of triangle with base 12 cm and height 8 cm.
a) 48 cm²   b) 72 cm²   c) 96 cm²   d) 100 cm²
✅ Answer: b

97. If selling price = ₹480 and loss = 20%, find cost price.
a) ₹560   b) ₹580   c) ₹600   d) ₹620
✅ Answer: c

98. The mean of first 5 odd numbers.
a) 3   b) 5   c) 7   d) 9
✅ Answer: c

99. If 40% of x = 120, then x = ?
a) 200   b) 250   c) 300   d) 350
✅ Answer: c

100.   A sphere has radius 7 cm. Its volume is (π = 22/7).
a) 1436 cm³   b) 1448 cm³   c) 1450 cm³
d) 1500 cm³
✅ Answer: a