(4)

- 26. A person travelled 61 km in 9 hrs. He travelled same distance foot in 4km/hr & on bicycle in 9km/ hr. What is the distance he travelled on foot ?
- 27. If a circle of radius 7cm is expounded to form a square, what is the side length of square ?
- 28. Find the area of rectangle whose one side is 6cm & diagonal is 10 cm ?
- 29. A wheel makes 200 revolutions to cover 44km. Find the radius of the wheel.
- 30. Find the area of the square whose diameter is 8cm.
- 31. If a quadrilateral having angles 75°, 60°, 80°, then what is the value of 4th angle ?
- 32. Perimeter of a squaresized area is 100m. Find the cost of colouring it at the rate of Rs. $\frac{10}{m^2}$
- 33. Find the median of 25, 39, 22, 15, 20, 40.
- 34. What is the mean of 29, 30, 35, 61 53, 25.
- 35. What is the mode of 1,2,3,4,5,1.5
- 36. Population of state A in 2004 is 70 lakhs & 2005 is 60 lakhs. What is the % of change in population ?
- 37. What is the probability of getting at most one tail in tossing a coin twice ?
- 38. What is the probability of getting a sum 13 in throwing a dice twice ?
- 39. Probability of sample space is _____.
- 40. From a deck of cards what is the probability of getting an Ace ?

<u>Group - B</u>

2023

Full Marks - 80

Time - 3 Hours.

The figures in the right-hand margin indicate marks. Answer ALL questions.

Group - A

- (1) Answer all questions : $[1 \times 40 = 40]$
- 1. Which one is rational 1.4389 _____ or 2 ?
- 2. If (a,b) is coprime, what is its gcd.
- 3. If $\frac{1}{2}$ of $\frac{1}{2}$ of a number is 15, then number is
- 4. The sum of two number is 25 and its subtraction is07. Find the numbers.
- 5. Is the number 235932 is divisible by 8 if it is divisible by 4?
- 6. Find the least value of # for which 8550 # 1 is divisible by 9.
- 7. What is $(a^m)^n$?
- 8. The value of $(125)^{-3/5}$ is _____. *P.T.O...*

(2)

- 9. Percentage means
 - (i) Whole number $\times 100$
 - (ii) Whole number
 - (iii) Fraction
 - (iv) Fraction denominator
- 10. Divide 240 into 3:2 ratio.
- 11. Sides of a triangle are in $\frac{1}{2}:\frac{1}{3}:\frac{1}{4}$ ratio. Perimeter is 78cm. Find lengths of all sides.
- 12. A mixture of 150 lt. Wine f water, contains 20% water. How much more water to be added so that it will contain 25% water ?
- 13. There are 400 Mangoes & 300 bananas, 10% of Mangoes & 15% of bananas are rotten. Find the % of fruits in good condition.
- 14. Which relation is right ?

(i)
$$CP = \frac{100}{100 - P\%} \times SP$$

(ii) $SP = \frac{100 - L\%}{100} \times MP$
(iii) $SP = \frac{100 - D\%}{100} \times MP$
(iv) $D\% = \frac{D}{MP} \times CP$

(3)

- 15. A sum of money put at S.I. doubles in 10 years. In how many years it will become 4 times ?
- 16. Find the interest of 750 with interest of 10% for 2 years ?
- 17. What is the area of shaded part of AB = 5 cm, AC = 10 cm.



- 18. Area of a triangle of sides 4cm, 5cm, 3cm is _____
- 19. All equilateral triangles are isosceles triangle (T/F)
- 20. A person crosses 600m in 5 mins. What is the speed in Km/hr?
- 21. If radius of a cricle increased by 25%, then how much % of area will increase ?
- 22. A & B takes 8 days, B&C take 12 days and A,B,C take 6 days to complete a work. Then how many days will take A & C to complete it ?
- 23. Two pipes can fill a tank in 10 & 20 min 8 sec. If both will be used together, how much time will be needed to fill it ?
- 24. If an object covers a distance at P km/hr. & the same distance at q km/hr , then average speed is ?
- 25. If two objects are moving in opposite direction at $\frac{9\text{m}}{\text{s}} \& 10\text{m/s}$. Find their relative speed. [Cont...

[Cont...

(6)

53. If TEACHER is VGCEJGT, then CHILDREN is

- 54. Mirror image of \triangleright is _____.
- 55. Mirror image of ANIMAL is _____.
- 56. Find the total no. of smaller cubes if a 10cm. edged cube is cut into 1cm. edged smaller cubes.
- 57. In a college 250 physics students, 300 Mathematics, 200 both Physics & Mathematics are there. How many students read either Physics or Mathematics ?
- 58. Find the mirror images of FLOWER and TEA.
- 59. All faces of a cube are painted with white colour. Then it is cut into 125 small equal cubes. Then how many cubes are there with one faced colour ?
- 60. Find the missing numbers 4, 6, 12, 14, 28 _____,

(5)

- (2) Answer all questions : $[2 \times 20 = 40]$
- 41. If Lizard : Reptile then Ostrich : _____.
- 42. Complete the series 7, 12, 19, 28, ____.
- 43. Ring : Finger :: Shoe : _____.
- 44. Attack : Defend :: Cruel : _____.
- 45. How many terms are there is 201, 208, 215, 369 ?
- 46. Find the 7th term in the series 7,14, 28,.....
- 47. Complete the series WXCD, UVEF, STGH, QRIJ, ____; (i) OPKL (ii) AYBZ (iii) JIQR (iv) None
- $48. \quad \text{Complete the box.} \\ \hline \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc ? \\ ? \\ \hline \end{aligned}$
- 49. (\bigcirc) (\bigcirc) ? Complete it.
- 50. Some animals are wild. Show in venn diagram.
- 51. All women are mothers

All Mothers are sisters.

Reprsent in diagram.

52. Pointing to a girl one said, "Her mother's brother is the only son of my mother's father". How is the girl's mother related to that person ?

[Cont...

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