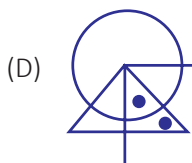
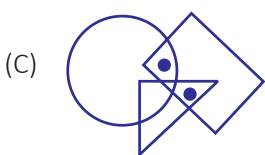
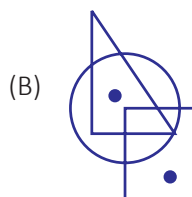
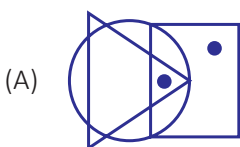
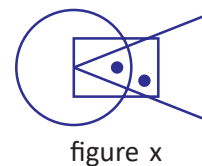


Mathematics Mock Test

This question paper contains a total of 40 questions divided into three sections; A, B and C.
Read the instructions carefully before attempting these questions.

Section A (Logical Reasoning)

1. Select the option which satisfies the same conditions of the placement of the dots as in Figure x.



2. If MONDAY is coded as 123456 and BELT is coded as 0789, then how would you encode the word TOMBAY?

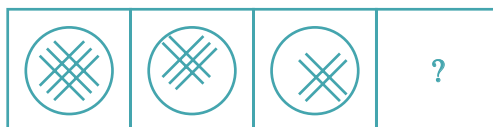
- (A) 921056 (B) 920156
(C) 291056 (D) 920165

3. Which of the following options has the same relationship as that of MJ : QN?

- (A) BR : FV (B) EF : MI
(C) RL : OP (D) PK : NP

4. Identify the missing term in the given series.

[OGO SLE, 2019]

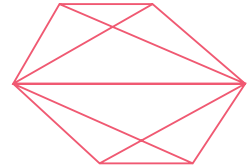


5. If English alphabet are written in reverse order. What will be the seventh letter on the right of the 12th letter from the left?

(A) W (B) V
(C) U (D) H

6. The number of quadrilaterals in the adjoining figure is _____.

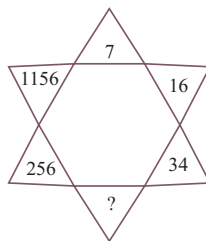
(A) 10
(B) 11
(C) 9
(D) 7



7. If Husband is called Wife, Wife is called Grandfather, Grandfather is called Grandmother, Grandmother is called Maternal Grandmother, Maternal Grandmother is called Maternal Grandfather, Maternal Grandfather is called Maternal Uncle and Maternal Uncle is called Maternal Aunt, then what will the father of the mother be called?

(A) Maternal aunt (B) Maternal grandmother
(C) Maternal uncle (D) Maternal grandfather

8. Find the missing character in the given figure.



(A) 72 (B) 68
(C) 49 (D) 64

Section B (Subject Specific)

9. A bottle contains 920 mL of mustard oil. The total quantity of oil contained in 25 such bottles is _____.

(A) 23 L (B) 24 L
(C) 22 L (D) 20 L

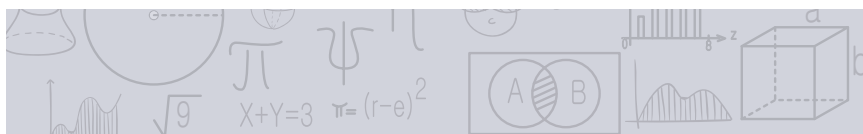
10. How many three digit numbers can be formed by using 4, 7 and 0 if the digits cannot be repeated?

(A) 3 (B) 5
(C) 4 (D) 6

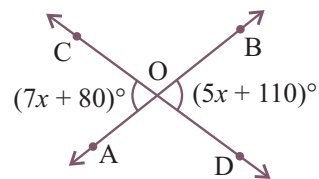
11. Choose the sign that makes the given expression true.

$$-25 - (-42) - (-27) \boxed{?} (-42) - (-25) + (-22)$$

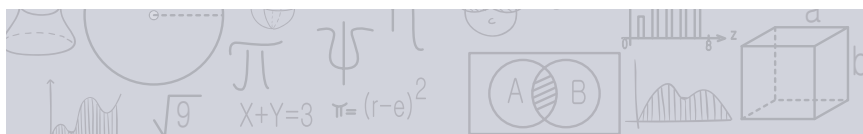
(A) > (B) <
(C) = (D) ≤



12. The difference between 9,84,088 and the number obtained by reversing its digits is _____.
 (A) 1,03,104 (B) 1,03,239
 (C) 99,999 (D) 1,03,599
13. The HCF of two numbers is 28 and their LCM is 336. If one number is 84, then the other number is _____.
 (A) 116 (B) 112
 (C) 108 (D) 98
14. The smallest number which when divided by 20, 25, 35 and 40 leaves a remainder of 14, 19, 29 and 34 respectively, is _____.
 (A) 1394 (B) 1398
 (C) 1442 (D) 1464
15. The prime factrisation of 13,915 is _____.
 (A) $5 \times 11 \times 7 \times 23$ (B) $11 \times 7 \times 23 \times 3$
 (C) $5 \times 11 \times 11 \times 3$ (D) $5 \times 11 \times 11 \times 23$
16. When a number is divided by seven, it gets the remainder as 2. When it is divided by 6, it gets the remainder as 3. Which is the number?
 (A) 9 (B) 16
 (C) 38 (D) 44
17. A cuboid box has _____ edges.
 (A) 14 (B) 12
 (C) 8 (D) 16
18. The expression $(x^2 - y^2 + 2xy + 1) - (x^2 + y^2 + 4xy - 5)$ simplifies to _____.
 (A) $2xy^2 - 2xy + 6$ (B) $-2y^2 - 2xy - 6$
 (C) $2y^2 + 2xy + 6$ (D) $-2y^2 - 2xy + 6$
19. Line segments AB and CD intersect at O. The value of x is _____.
 (A) 12 (B) 15
 (C) 17 (D) 25
20. A bicycle wheel makes seven and a half turns. The number of right angles through which it turns is _____.
 (A) 14 (B) 25
 (C) 30 (D) 32

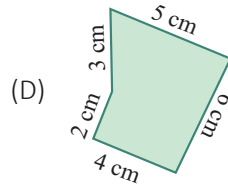
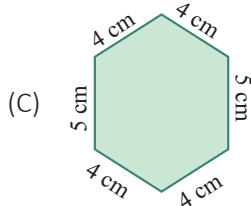
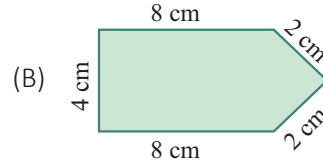
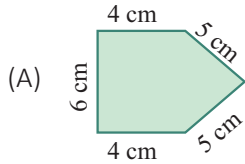


21. 1 L of kerosene oil weighs 0.819 kg and 10 L of diesel weighs 7.02 kg. The ratio of the weights of kerosene and diesel is _____.
(A) 6 : 7 (B) 5 : 7
(C) 7 : 5 (D) 7 : 6
22. Sohan divided a water melon into 18 parts. I ate 5 out of them, and Sohan ate 7 out of them. What fraction of watermelon is left?
(A) $\frac{6}{18}$ (B) $\frac{5}{18}$
(C) $\frac{12}{18}$ (D) $\frac{7}{18}$
23. $4\frac{3}{5} - 2\frac{7}{9} - 1\frac{2}{15} - \frac{2}{5}$ equals _____.
(A) $\frac{14}{45}$ (B) $\frac{13}{45}$
(C) $\frac{18}{45}$ (D) $\frac{19}{45}$
24. What fraction of one metre is 10 cm?
(A) $\frac{10}{1}$ (B) $\frac{1}{10}$
(C) $\frac{9}{100}$ (D) $\frac{1}{100}$
25. An ant went 4 m 86 cm up on a tree, then it came back 2 m 30 cm down. The distance travelled by the ant was _____.
(A) 7 m 16 cm (B) 6 m 56 cm
(C) 6 m 16 cm (D) 4 m 56 cm
26. The ratio of copper and zinc in an alloy is 9 : 5. If the weight of zinc in the alloy is 9.5 gm, then the weight of copper in it is _____.
(A) 17.8 gm (B) 17.4 gm
(C) 17.3 gm (D) 17.1 gm
27. Rahul brought 2 kg 100 g of apples, 700 g of grapes and 3 kg 400 g of mangoes. The total weight of all the fruits is _____.
(A) 6 kg 200 gm (B) 5 kg 800 gm
(C) 6 kg 100 gm (D) 7 kg 100 gm
28. The expanded form of 3.040 is _____.
(A) $3 \times 1 + \left(\frac{4}{1000}\right)$ (B) $3 \times 10 + \left(4 \times \frac{1}{1000}\right)$
(C) $3 \times 1 + \left(4 + \frac{1}{100}\right)$ (D) $3 \times 1 + \frac{4}{100}$



Instruction: Q. 29 to 33 are two-key based questions having four options A, B, C and D out of which TWO are correct.

29. The figures which have the perimeter 24 are _____.



30. The perimeter of a park is 168 metres. Its dimensions can be _____.

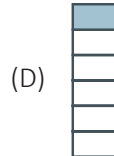
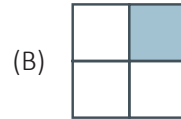
(A) 26 m, 54 m

(B) 48 m, 36 m

(C) 28 m, 56 m

(D) 32 m, 44 m

31. Which of the given figures below represent $\frac{1}{3}$?



32. Which of the following divisions give integral quotient?

(A) $5712 \div 56$

(B) $7848 \div 31$

(C) $5968 \div 28$

(D) $9292 \div 23$

33. Identify equivalent fractions?

(A) $\frac{990}{342}$

(B) $\frac{105}{285}$

(C) $\frac{286}{374}$

(D) $\frac{196}{532}$

Section C (Competency Based)

34. Which of the following statements is true?

(i) A sector is the region in the interior of a circle enclosed by an arc on one side and a pair of radii on the other two sides.

(ii) A segment of a circle is the region in the interior of the circle enclosed by an arc and a chord.

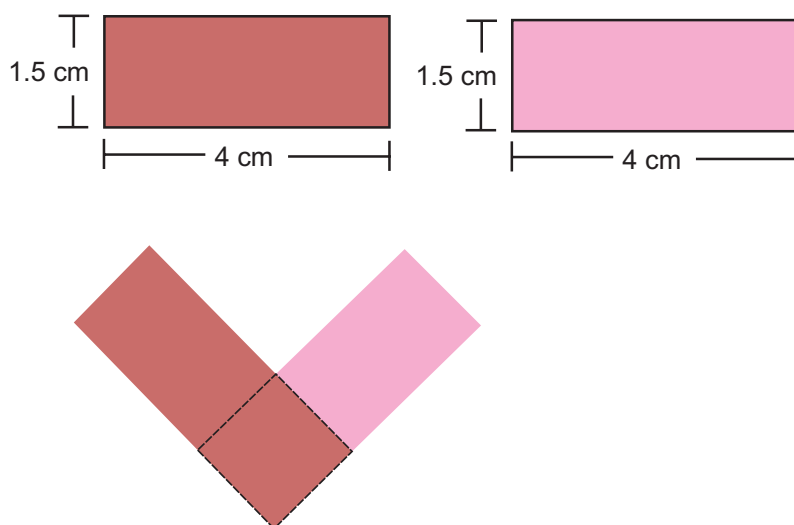
(A) Only (i)

(B) Only (ii)

(C) Both (i) and (ii)

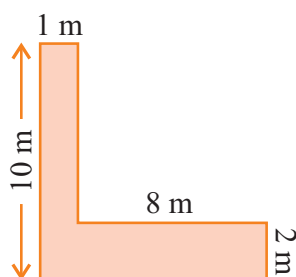
(D) Neither (i) nor (ii)

35. The rectangles given below are glued one on top of the other to make an L-shaped figure.

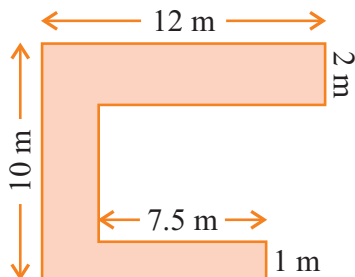


What is the area of the overlapping section in cm^2 ?

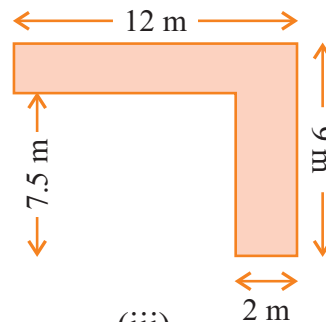
- (A) 2.25 (B) 6
(C) 9.75 (D) 12
36. Which of the following has the maximum shaded area? [OGO SLE, 2022]



(i)



(ii)

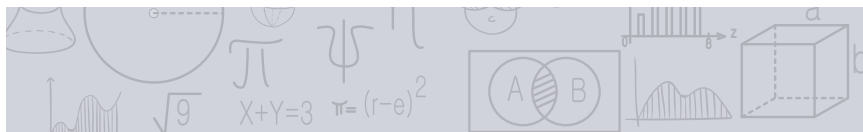
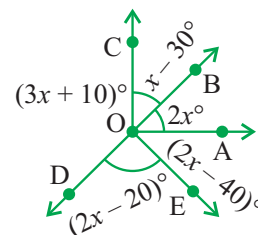


(iii)

- (A) (iii) (B) (ii)
(C) (i) (D) Both (ii) and (iii)
37. The ratio of father's age to that of his son's age is equal to the ratio of the mother's age to that of her daughter's age. If the ages of mother, son and daughter be 48, 24 and 18 years respectively, then the age of the father is
- (A) 60 years (B) 64 years
(C) 59 years (D) 63 years

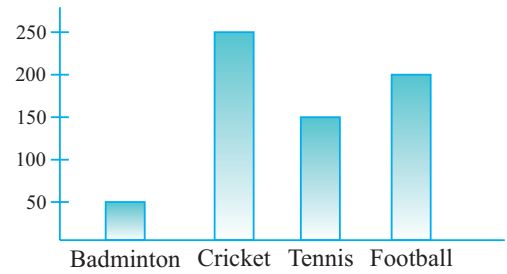
38. In the adjoining figure x equals _____.

- (A) 40°
(B) 41°
(C) 43°
(D) 44°



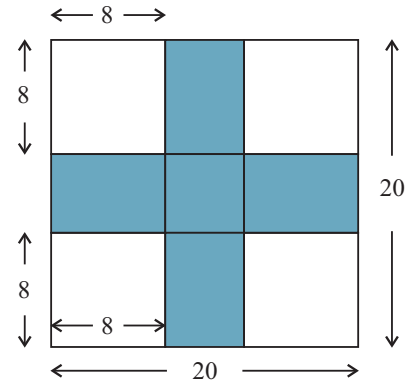
39. The given graph shows the games played by the students of a school. How many more students play Football than Badminton?

- (A) 20
(B) 100
(C) 500
(D) 150



40. The area of the shaded region in the figure is _____.

- (A) 80 square units
(B) 160 square units
(C) 144 square units
(D) 148 square units



Mock Test 1

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