



**Sample Paper**

**Class 7 (Pre-Foundation)**

**Duration: 2.5 Hrs**

**Maximum Marks: 300**

**For Students presently in class 6<sup>th</sup> (Stream: Pre-Foundation)**

**PAPER SCHEME:**

- The paper contains **50 Objective Type Questions** divided into three sections: **Section - I, Section – II and Section – III.**
- **Section I** contains **5 Multiple Choice Questions (1-5)** based on **Mental Aptitude**. Each question has 4 choices (A), (B), (C) and (D), out of which **ONLY ONE CHOICE** is correct.
- **Section II** contains **15 Multiple Choice Questions (6-20)** based on **Science**. Each question has 4 choices (A), (B), (C) and (D), out of which **ONLY ONE CHOICE** is correct.
- **Section III** contains **30 Multiple Choice Questions (21-50)** based on **Mathematics**. Each question has 4 choices (A), (B), (C) and (D), out of which **ONLY ONE CHOICE** is correct.

**MARKING SCHEME:**

- **Section I, II & III** : For each question, **6 marks** will be awarded for correct answer and **–1 negative marking** for incorrect answer.

**SUGGESTIONS:**

- Before starting the paper, spend 2-3 minutes to check whether all the pages are in order and report any issue to the invigilator immediately.
- Try to attempt the Sections in their respective order.
- Do not get stuck on a particular question for more than 3-4 minutes. Move on to a new question as there are 50 questions to solve.

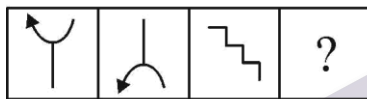
**SECTION - I [MENTAL APTITUDE]**

**Directions for question-1**

In this question consists of two sets of figures. Figures A, B, C and D constitute the Problem Set while figures 1, 2, 3, 4 constitute the Answer Set. There is a definite relationship between figures A and B. Establish a similar relationship between figures C and D by selecting a suitable figure from the Answer set that would replace the question mark (?) in fig. (D).

1. Select a suitable figure from the Answer Figures that would replace the question mark (?).

Problem Figure



(A) (B) (C) (D)

Answer Figure



(1) (2) (3) (4)

- (A) 1 (B) 2 (C) 3 (D) 4

2. If A is the brother of B; B is the sister of C; and C is the father of D, how D is related to A ?

- (A) Brother (B) Sister (C) Nephew (D) Cannot be determined

3. Choose the alternative which is closely resembles the water-image of the given combination.

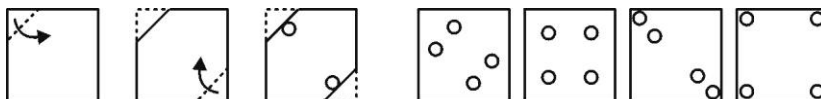
W r o t e

- (A) W 1 0 j 9 (B) M 1 0 1 6 (C) M 1 0 f 6 (D) M 1 0 f 9

4. If PAINT is coded as 74128 and EXCEL is coded as 93596 then how would you encoded ACCEPT?

- (A) 455978 (B) 547978 (C) 554978 (D) 735961

5. Choose a figure which would most closely resemble the unfolded form of Figure (z).



(x) (y) (z) (1) (2) (3) (4)

- (A) 1 (B) 2 (C) 3 (D) 4

**SECTION - II [SCIENCE]**

6. What is the main goal of mindful eating?
- (A) Counting calories in every meal  
(B) Eating as quickly as possible  
(C) Being fully aware of the eating experience without judgment  
(D) Skipping meals to lose weight
7. Which of the following is a recommended practice in mindful eating?
- (A) Watching TV while eating  
(B) Eating on the go  
(C) Chewing food slowly and savoring the taste  
(D) Ignoring hunger cues
8. How can mindful eating contribute to a healthy body?
- (A) By encouraging overeating at every meal.  
(B) By helping you listen to your body's hunger and fullness signals.  
(C) By making you skip meals regularly.  
(D) By banning all carbohydrates.
9. Which of the following is NOT a characteristic of living things?
- (A) Growth (B) Reproduction  
(C) Respiration (D) Rusting
10. Which characteristic helps animals respond to changes in their environment?
- (A) Respiration (B) Irritability or Sensitivity  
(C) Reproduction (D) Excretion
11. All living things need energy to perform activities. Which process do plants use to make their own food?
- (A) Digestion (B) Germination  
(C) Photosynthesis (D) Fermentation
12. Which of the following objects will a magnet attract?
- (A) A plastic spoon (B) A wooden stick  
(C) An iron nail (D) A glass marble
13. What happens when you bring the north poles of two magnets close to each other?
- (A) They attract (B) They repel  
(C) They stick together (D) Nothing happens
14. Where is the magnetic force of a bar magnet the strongest?
- (A) At the center (B) At the ends (poles)  
(C) Equally all over (D) Only on one side
15. What is the SI unit of speed?
- (A) metre (B) metre/second (C) kilometre/hour (D) second

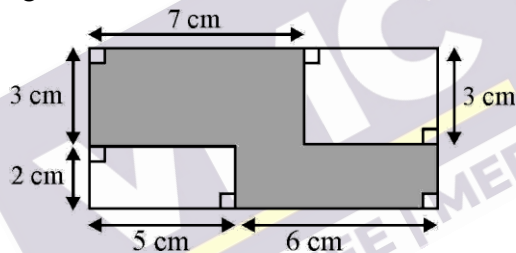
16. A car travels 150 km in 3 hours. What is its average speed?  
 (A) 50 km/h (B) 45 km/h (C) 60 km/h (D) 30 km/h
17. Which of the following is NOT a unit of temperature?  
 (A) Celsius (B) Kelvin (C) Pascal (D) Fahrenheit
18. Which device is used to measure temperature accurately?  
 (A) Barometer (B) Thermometer (C) Hygrometer (D) Ammeter
19. Which of the following is a natural material?  
 (A) Plastic (B) Glass (C) Cotton (D) Steel
20. Which material is best suited to make cooking utensils?  
 (A) Wood (B) Paper (C) Metal (D) Rubber

### SECTION - III [MATHEMATICS]

21. Which pair of operations will make the equation below true when inserted into the blank spaces in the order shown?

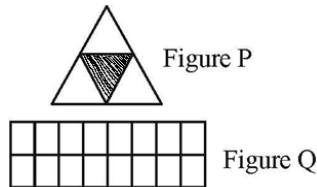
$$2\frac{3}{10} \quad \underline{\quad} \quad 1.5 \quad \underline{\quad} \quad 2 = 1.8$$

- (A) - and + (B) × and + (C) + and - (D) × and -
22. For the figure shown below, find the area, in  $cm^2$ , of the shaded portion.

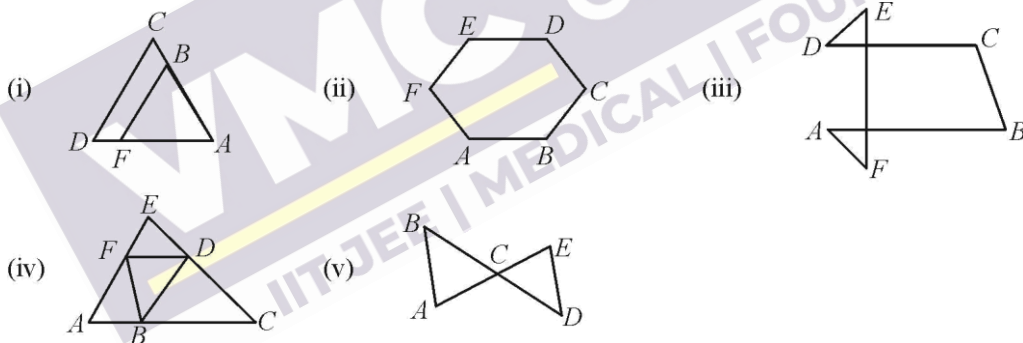


- (A) 33 (B) 44 (C) 48 (D) None of these
23. The difference between the largest 8 digit number and the smallest 6 digit number is:  
 (A) 100099999 (B) 99899999 (C) 99989999 (D) 99998999
24. The statement “When an integer is added to itself, the sum is greater than the integer” is:  
 (A) Always true (B) Never true  
 (C) True only when the integer is positive (D) True for non-negative integers
25. The difference between place values of digit 5 in 456.385 is:  
 (A) 49995 (B) 499.95 (C) 49.995 (D) 49.999
26. Evaluate:  $-1 + 55 - (-29) + (-1) - (-82) + (-3)$   
 (A) 161 (B) -161 (C) 158 (D) -158
27. A fraction is equivalent to  $\frac{5}{8}$ . Its denominator and numerator add up to 91. What is the difference between the denominator and numerator of this fraction?  
 (A) 21 (B) 33 (C) 13 (D) 19

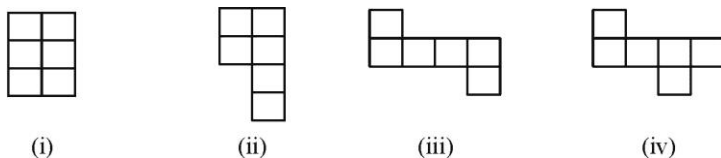
28. What is the value of ' $8937 \times 648 + 8937 \times 122 + 8937 \times 230$ '?  
 (A) 8937000 (B) 8936000 (C) 893800 (D) 8935000
29. Neelam's annual income is Rs. 288000. Her annual savings amount to Rs. 36000. The ratio of her savings to her expenditure is:  
 (A) 1 : 8 (B) 1 : 7 (C) 1 : 6 (D) 1 : 5
30. How many parts should be shaded in the Figure Q to make it the same fraction as the unshaded part in the Figure P?



- (A) 3 (B) 4 (C) 8 (D) 12
31. Which of the following numbers is divisible by both 3 and 5?  
 (A) 27 (B) 45 (C) 32 (D) 50
32. The areas of squares P and Q are in the ratio 4 : 9. If the area of P is 144 sq cm, find the perimeter of Q.  
 (A) 17 cm (B) 72 cm (C) 27 cm (D) 324 cm
33. Which of the following figures are NOT polygons?

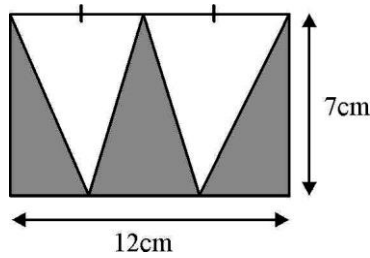


- (A) (i), (ii) and (v) (B) (i), (ii) and (iii)  
 (C) (i), (iii), (iv) and (v) (D) (i), (ii), (iii) and (iv)
34. An athlete takes 10 rounds of a rectangular park, 40 m long and 30 m wide. Find the total distance covered by him.  
 (A) 1400 m (B) 700 m (C) 70 m (D) 2800 m
35. Following figures are formed by joining six unit squares. Which figure has the smallest perimeter in Figure?



- (A) (ii) (B) (iii) (C) (iv) (D) (i)

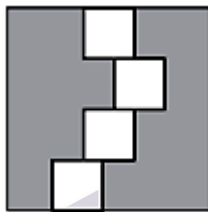
36. The figure given shows rectangle. Find the area of the shaded region within the rectangle.



- (A)  $28\text{cm}^2$       (B)  $38\text{cm}^2$       (C)  $42\text{cm}^2$       (D)  $84\text{cm}^2$
37. Pranay spent  $\frac{1}{8}$ th of his money on food. He spent 3 times as much as what he spent on food on a pair of shoes and  $\frac{1}{3}$ rd of it on transport. What fraction of his money was left?

- (A)  $\frac{7}{8}$       (B)  $\frac{13}{24}$       (C)  $\frac{1}{2}$       (D)  $\frac{1}{6}$

38. The figure below shows 4 identical squares which lie within a big square. If the area of the big square is  $784\text{ cm}^2$ , find the shaded area of the given figure.

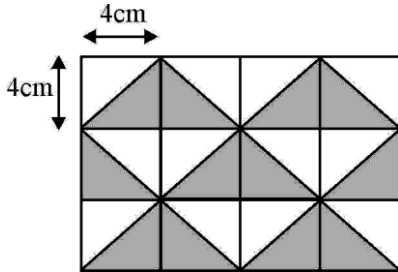


- (A)  $637\text{ cm}^2$       (B)  $588\text{ cm}^2$       (C)  $688\text{ cm}^2$       (D)  $528\text{ cm}^2$
39. Two regular hexagons of perimeter 30 cm each are joined as shown in the figure. The perimeter of the new figure is:



- (A) 65 cm      (B) 60 cm      (C) 55 cm      (D) 50 cm
40. The ratio of the number of big dogs to the number of small dogs at a pet show is 3 : 17. There are 80 dogs, in total, at this pet show. How many big dogs are there?
- (A) 12      (B) 20      (C) 24      (D) 6
41. Three squares P, Q and R are such that the perimeter of P is  $\frac{2}{3}$  the perimeter of Q, and the perimeter of Q is  $\frac{2}{3}$  the perimeter of R. If the area of P is 16 sq. units, what is the area of R?
- (A) 9 sq. units      (B) 81 sq. units      (C) 64 sq. units      (D) 36 sq. units

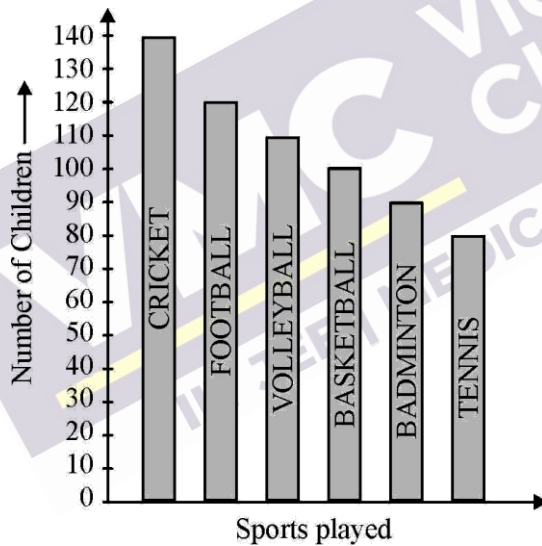
42. The marks (out of 10) obtained by 28 students in a Mathematics test are listed as below:  
8, 1, 2, 6, 5, 5, 5, 0, 1, 9, 7, 8, 0, 5, 8, 3, 0, 8, 10, 10, 3, 4, 8, 7, 8, 9, 2, 0
- The number of students who obtained marks more than or equal to 5 is:
- (A) 13                      (B) 15                      (C) 16                      (D) 17
43. The given rectangle is made up of 12 squares. Find the area of the shaded region.



- (A)  $60cm^2$                       (B)  $48cm^2$                       (C)  $96cm^2$                       (D)  $24cm^2$

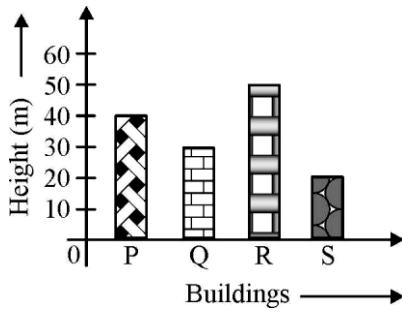
#### Directions for Questions 44-45

Study the given graph carefully and answer the following questions.



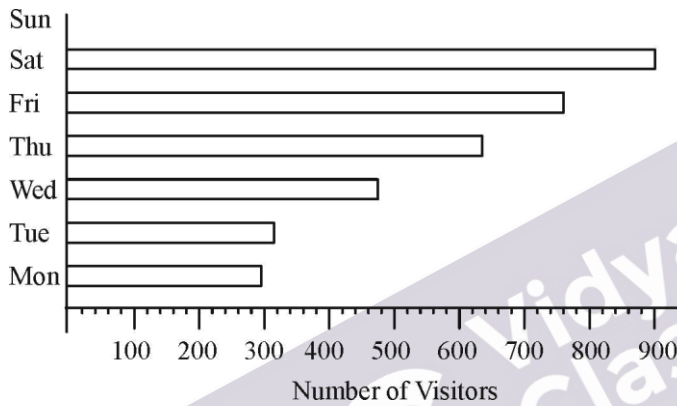
44. What fraction of the total number of children plays football?
- (A)  $\frac{3}{16}$     (B)  $\frac{13}{64}$   
(C)  $\frac{11}{64}$     (D)  $\frac{5}{32}$
45. The difference between the number of children who play tennis and cricket altogether and basketball and volley ball altogether is:
- (A) 20    (B) 40  
(C) 10    (D) 50

46. Which building is 20 m taller than the shortest?



- (A) P                      (B) Q                      (C) R                      (D) S

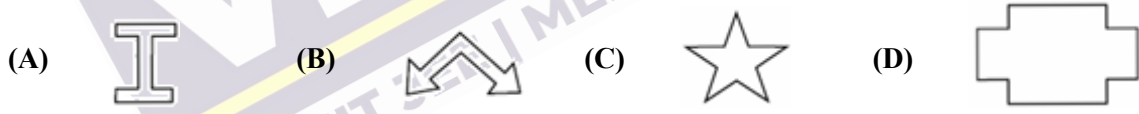
47. The graph given shows the number of visitors to a zoo in a particular week.



On which day was the number of visitors thrice that on Monday?

- (A) Sunday              (B) Saturday              (C) Friday              (D) Thursday

48. Which of the following figures has more than three lines of symmetry?



49. What comes next in the pattern?

2, 4, 8, 16, \_\_\_

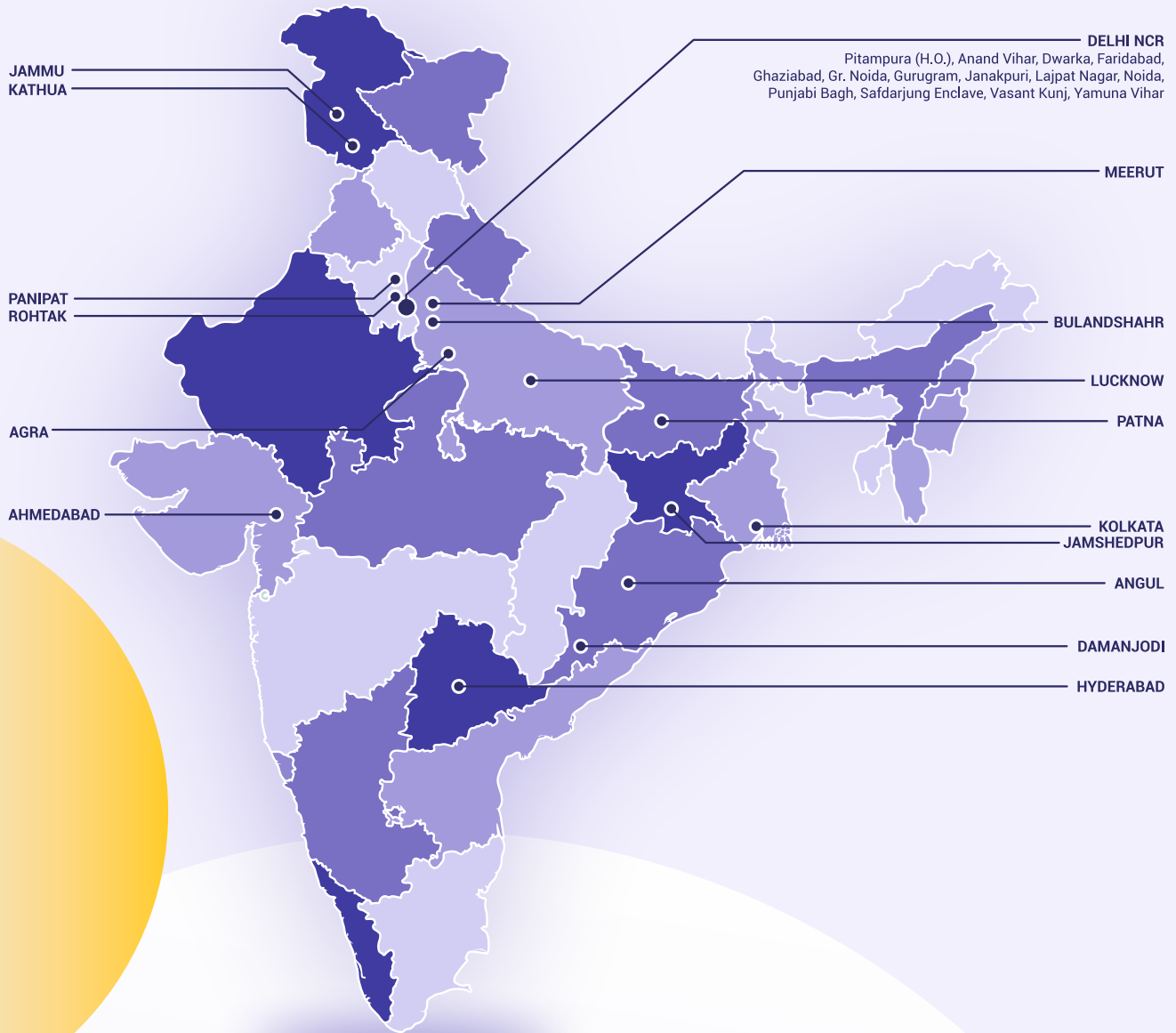
- (A) 18                      (B) 24                      (C) 32                      (D) 64

50. What is the rule in the pattern?

5, 10, 20, 40, 80

- (A) Multiply by 2      (B) Add 5                      (C) Add 10                      (D) Subtract 5

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