World Mathematics Olympiad (WMO)
Standard: VIII

Instructions:

There are three Sections and total 40 questions.
Attempt all the questions.
There is no negative marking for the wrong answers.
Time: 90 minutes

Doers Section

No. of Questions:30
Marks for each question: 2

1. An integer can be

a. Only Positive
b. Only Negative
c. Both positive and negative
d. None of the above

2. $\frac{5}{4} + \frac{1}{4}$ is equal to:

a. $\frac{3}{4}$

b. $\frac{3}{2}$

c. $\frac{2}{3}$

d. 1

3. What is the additive inverse of $-\frac{4}{9}$

a. $\frac{4}{9}$
b. $-\frac{9}{4}$
c. $\frac{9}{4}$
d. $-\frac{2}{3}$

4. What is the product of $\frac{7}{15}$ and reciprocal of $-\frac{1}{5}$

a. $\frac{7}{34}$

b. $-\frac{7}{45}$

c. $-\frac{7}{3}$

d. $-\frac{5}{7}$

5. What is the additive inverse of $-\frac{7}{17}$

a. $\frac{7}{17}$

b - $\frac{7}{17}$

c. $\frac{17}{7}$

d. - $\frac{17}{7}$

6. Find x if x+5 = 26

a. 21

b. 22

c. 31

d. 35

7. If 17 is subtracted from a number, it becomes -7. This statement in the form of an equation is

a. x + 17 = -7

b. x – 17 = 7

c. x + 17 = 7

d. x – 17 = -7.

8. What is y in the equation $\frac{y}{4}$ = -8

a. 3

b. -32

c. 12

d. 4

9. The x in the equation $\frac{5}{x}$= 2 is

a. 10

b. $\frac{2}{5}$

c. $\frac{5}{2}$

d. $\frac{1}{10}$

10. How many variables are there in the equation 5x+2y+3z

a. 1

b. 2

c. 3

d. 0

11. When 7 is added to three times a number, we get 82. The number is

a. 25

b. 27

c. 29

d. 31

12. Which of the following quadrilaterals has two pairs of adjacent sides equal and diagonals intersecting at right angles?

a. square
b. rhombus
c. kite
d. rectangle.

13. The sides of a pentagon are produced in order. Which of the following is the sum of its exterior angles?

a. 540°
b. 180°
c. 720°
d. 360°

14. Diagonals of which of the following quadrilaterals do not bisect it into two congruent triangles?

a. trapezium
b. square
c. rectangle
d. rhombus

15. In an isosceles parallelogram, we have:

a. pair of parallel sides as equal
b. pair of non-parallel sides as equal
c. pair of non-parallel sides as perpendicular
d. none of these.

16. How many vertices are there in a quadrilateral

a. 3
b. 4
c. 5
d. 6

17. How many diagonals are there in a quadrilateral?

a. 1
b. 2
c. 3
d. 4

18. The sum of measures of all four angles of a quadrilateral is

a. 90^O
b. 180^O
c. 360^O
d. 720^O

19. The angle sum of a convex polygon with the number of sides 7 is.

a. 900^O
b. 1080^O
c. 1440^O
d. 720^O

20. If the digit in one's place of a number is 5, then the last digit of its cube will be:

a. 6
b. 3
c. 5
d. 8

21. Cube root of 27000 is

a. 90
b. 30
c. 27
d. 120

22. If 72K is a perfect cube, then the value of K is

a. 3
b. 1
c. 2
d. 4

23. The value of $(5° + 15°) \times 3^2$ is

a. 8

b 18

c 12

d 0

24. Which is reciprocal of $-\frac{4}{9}$

a. -9/4

b. 4/9

c. 1

d. 0

25. 9.1×10^{-6} is the same as

a. 0.0000091

b. 0.00009.1

c. 0.00091

d. 0.0091

26. Which is the standard form of 0.00001948?

a. 1.948×10^5

b. 1.948×10^{-5}

c. 194.8×10^{-7}

d. 194.10^7

27. The 25 is the same as

a. 16

b. 32

c. 64

d. 72

28. In the expression 10^{33} the base is

a. 0
b. 10
c. 100
d. 33

29. Multiplicative inverse of 5^{-2} is

a. 25
b. 7
c.14
d.64

30. Following is a diagram of

a. Square
b. Cube
c. Rectangle
d. Irregular shape

Executors Section

No. of Questions: 5
Marks for each question: 3

31. Area of a square having one side of 5 cm is

a. 25 cm^2
b. 15 cm^2
c. 100 cm^2
d. Can't say

32. The πr^2 represents

a. Area of a circle
b. The perimeter of a circle
c. Area of a semi-circle
d. Area of a sphere

33. 1 cm^3 =

a 1000 mm^3

b 100 mm^3

c 10 mm^3

d 11000mm^3

34. Which of the following is the numerical coefficient of -4xy?

a. 4
b. -x
c. -4
d. –y

35. The value of $x^2 – 2x + 1$ when x = 1 is

a. 1

b. 2

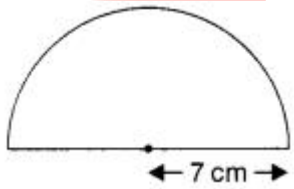
c. -2

d. 0

Performers Section

No. of Questions: 5
Marks for each question: 5

36. The area of the figure is



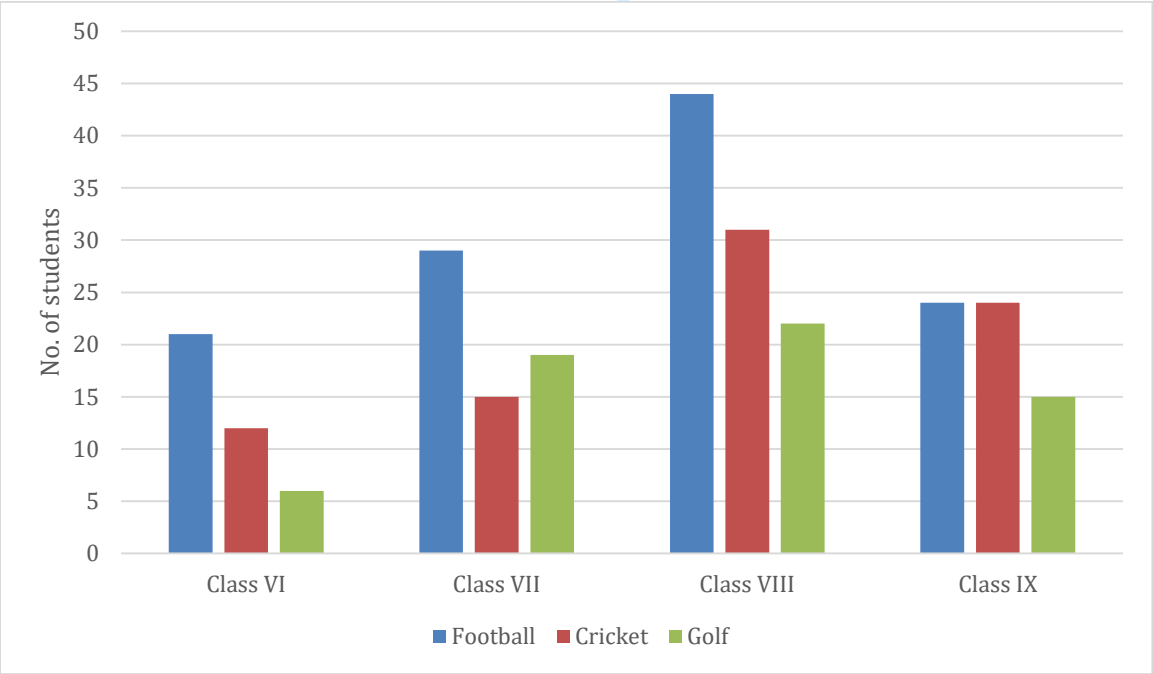
(a) 77 cm^2

(b) 154 cm^2

(c) 38.5 cm²

(d) none of the above

37. Based on the following graph match the table below

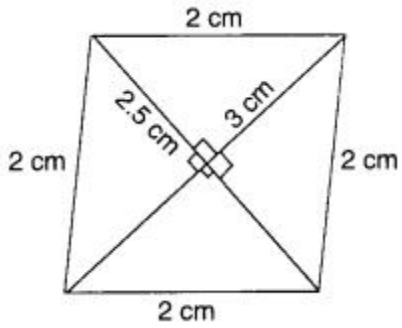


A	Most popular game in the school	I	Football
B	Least popular game in class VII	II	Cricket
C	Only 50 % of student plays as compared to the most popular game in class VIII	III	Golf

Options

a. A-I, B-II, C-III
b. A-II, B-III, C-I
c. A-III, B-II, C-I
d. A-I, B-III, C-II

38. The area of the quadrilateral is



a. 3.75 cm^2

b .7.5 cm^2

c .3 cm^2

d. 10 cm^2

39. Harry took a bank loan at the rate of 12% p.a. simple interest. After 3 years he had to pay Rs. 5400 as interest. What is the principal amount (in Rs) borrowed by him?

a. 12000

b. 20000

c. 15000

d. 10500

40. The ratio of the speed of a cycle 24 km per hour to the speed of a scooter 48 km per hour is

a. 1:2

b. 1:3

c. 1:4

d. 2:3