

Standard 8

MATHS

Marks: 50

Time: 1.30 Hrs.

Part - A

I. Choose the best answers:

6 × 1 = 6

1) The sum of the digits of the denominator in the simplest form of $\frac{112}{528}$ is

- a) 4 b) 5 c) 6 d) 7

2) The square of 43 ends with the digit _____.

- a) 9 b) 6 c) 4 d) 3

3) Which is not correct?

- a) $\left(\frac{-1}{4}\right)^2 = 4^{-2}$ b) $\left(\frac{-1}{4}\right)^2 = \left(\frac{1}{2}\right)^4$ c) $\left(\frac{-1}{4}\right)^2 = 16^{-1}$ d) $\left(\frac{1}{4}\right)^2 = 16^{-1}$

4) The multiplicative inverse of the rational number $\frac{a}{b}$ is _____.

- a) $\frac{-a}{b}$ b) $\frac{-b}{a}$ c) $\frac{b}{a}$ d) $\frac{-a}{-b}$

5) The radius of a circle of diameter 24 cm is _____.

- a) 6 cm b) 12 cm c) 15 cm d) 18 cm

6) The circumference of a circle is _____.

- a) $2\pi r$ b) πr^2 c) πr d) $\frac{\pi r^2}{2}$

II. Fill in the blanks:

4 × 1 = 4

7) The value of $\left(\frac{-3}{6}\right) \times \left(\frac{18}{-9}\right)$ is _____.

8) The cube root of 540×50 is _____.

9) The meeting point of more than two edges in a polyhedron is called as _____.

10) The longest chord of a circle is _____.

III. State True or False:

5 × 1 = 5

11) $\frac{-4}{5}$ lies to the left of $\frac{-3}{4}$.

12) The number of zeros in the square of 91000 is 9.

13) The perimeter of a quadrant of a circle is $\left(\frac{\pi}{2} + 2\right)r$ units.

14) If a net of a 3-D shape has six plane squares, then it is called cube.

15) The average of two rational numbers lies between them.

Part - B

IV. Answer ANY 5 questions:

5 × 2 = 10

16) Subtract $\frac{-8}{44}$ from $\frac{-17}{11}$.

- 17) The product of two rational numbers is $\frac{-2}{3}$. If one number is $\frac{3}{7}$, then find the other.
- 18) Find the square root of the number 4761 by prime factorisation method.
- 19) Find the cube root of 27000
- 20) Find the value of $(-2)^5 \times (-2)^3$.
- 21) Find the area of the sector whose length of the arc is 48m and radius 10m.
- 22) A spinner of radius 7.5 cm is divided into 6 equal sectors. Find the area of each of the sectors.

Part - C

V. Answer ANY FOUR questions:

4×5=20

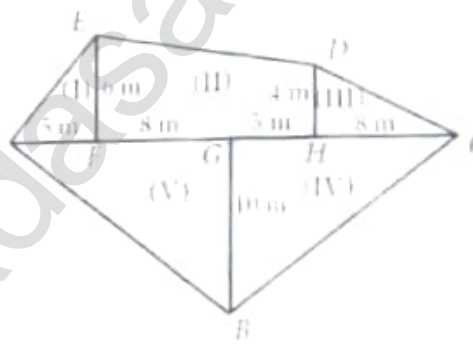
23) Simplify: $\left(\frac{4}{3} - \left(\frac{-3}{2}\right)\right) + \left(\frac{-5}{3} + \frac{30}{12}\right) + \left(\frac{-12}{9} \times \frac{-27}{16}\right)$

24) Find the square root of 17956 by long division method.

25) Solve for x: $\frac{5^5 \times 5^{-4} \times 5^x}{5^{12}} = 5^{-5}$

26) If $\frac{1}{4}$ of a ragi adai weighs 120 grams, what will be the weight of $\frac{2}{3}$ of the same ragi adai?

27) Find the area of an irregular polygon field whose measures are as given in the figure.



28) Verify Euler's formula for the table given below:

S.No	Faces	Vertices	Edges
(i)	4	4	6
(ii)	10	6	12
(iii)	12	20	30
(iv)	20	13	30
(v)	32	60	90

Part - D

VI. Answer ANY ONE of the following Geometry:

1×5=5

29) a) Construct a quadrilateral 'DEAR' with, DE = 6 cm, EA = 5 cm, AR = 5.5 cm, RD = 5.2 cm and DA = 10 cm. Also find its area.

(OR)

b) Construct a Trapezium CITY with, $\overline{CI} \parallel \overline{YT}$, CI = 7 cm, IT = 5.5 cm, TY = 4 cm and YC = 6 cm.