

Ts-8M

**Tenkasi District Common Examinations**  
**Common First Mid Term Test - 2022**



**Standard 8**

Time: 1.30 Hrs.

**MATHS**

Marks: 50

**Part - I**

**I. Choose the correct answer:**

5×1=5

1) Which of the following pairs is equivalent?

a)  $\frac{-20}{12}, \frac{5}{3}$

b)  $\frac{16}{-30}, \frac{-8}{15}$

c)  $\frac{-18}{36}, \frac{-20}{44}$

d)  $\frac{7}{-5}, \frac{-5}{7}$

2)  $\frac{3}{4} \times \left( \frac{5}{8} \div \frac{1}{2} \right) = \underline{\hspace{2cm}}$

a)  $\frac{5}{8}$

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

c)  $\frac{15}{32}$

d)  $\frac{15}{16}$

3)  $(-2)^{-3} \times (-2)^{-2} = \underline{\hspace{2cm}}$

a)  $\frac{-1}{32}$

b)  $\frac{1}{32}$

c) 32

d) -32

4) A cube has \_\_\_\_\_ faces.

a) 4

b) 6

c) 8

d) 12

5) The longest chord of a circle is \_\_\_\_\_.

a) arc

b) diameter

c) radius

d) centre

**II. Fill in the blanks:**

5×1=5

6) The multiplicative inverse of -1 is \_\_\_\_\_.

7) The ones digit in the square of 77 is \_\_\_\_\_.

8) The cube root of  $540 \times 50$  is \_\_\_\_\_.

9) A part of circumference of a circle is called as \_\_\_\_\_.

10) The cross section of a solid cylinder is \_\_\_\_\_.

**III. State True or False:**

5×1=5

11) 0 is the smallest rational number.

12) 79570 is not a perfect cube.

13) The standard form of  $2 \times 10^{-4}$  is 0.0002.

14) The square root of 225 is 15.

15) Using the power rule  $(3^7)^{-2} = 3^5$ .

**IV. Match the following:**

5×1=5

- |                                   |   |   |
|-----------------------------------|---|---|
| 16) a) Area of a circle           | - | $\frac{1}{4} \pi r^2$                           |
| b) Circumference of a circle      | - | $(\pi+2)r$                                      |
| c) Area of the sector of a circle | - | $\pi r^2$                                       |
| d) Circumference of a semi circle | - | $2\pi r$  |
| e) Area of a quadrant of a circle | - | $\frac{\theta^\circ}{360^\circ} \times \pi r^2$ |

**Part - II**

**V. Answer ANY 5 questions:**

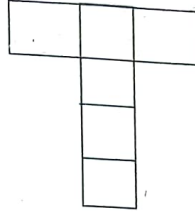
5×2=10

17) Find a rational number between  $\frac{1}{3}$  and  $\frac{5}{9}$ .18) Subtract  $\frac{9}{17}$  from  $\frac{-12}{17}$ .19) Evaluate:  $\frac{9}{132} \times \frac{-11}{3}$

Ts-8M

2

- 20) Find the value of  $\sqrt{256}$ .
- 21) Evaluate:  $(2^{-5} \times 2^7) \div 2^{-2}$
- 22) A spinner of radius 7.5 cm is divided into 6 equal sectors. Find the area of each of the sectors.
- 23) Which 3-D shape do the following net represent? Draw it.



VI. Answer ANY 3 questions:

Part - III

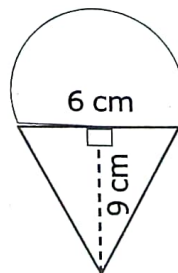
3×5=15

- 24) Simplify:  $\left(\frac{4}{3} - \left(\frac{-3}{2}\right)\right) + \left(\frac{-5}{3} \div \frac{30}{12}\right) + \left(\frac{-12}{9} \times \frac{-27}{16}\right)$
- 25) Verify the distributive property,  $a \times (b+c) = (a \times b) + (a \times c)$  for the rational numbers  $a = \frac{-1}{2}$ ,  $b = \frac{2}{3}$ ,  $c = \frac{-5}{6}$ .
- 26) Evaluate: (i)  $\sqrt[3]{\frac{9261}{8000}}$  (ii)  $\sqrt[3]{\frac{1728}{729}}$
- 27) Four identical medals, each of diameter 7 cm are placed as shown in the figure.



Find the area of the shaded region between the medals  $\left(\pi = \frac{22}{7}\right)$ .

- 28) Find the area of the combined figure given formed by joining a semicircle of diameter 6 cm with a triangle of base 6 cm and height 9 cm. ( $\pi = 3.14$ )



Part - IV

VII. Answer ANY 1 of the following:

1×5=5

- 29) a) Construct a Quadrilateral DEAR with, DE = 6 cm, EA = 5 cm, AR = 5.5 cm, RD = 5.2 cm. Also find its area.

(OR)

- b) Construct a Trapezium CUTE with,  $\overline{CU} \parallel \overline{ET}$ , CU = 7 cm,  $\angle UCE = 80^\circ$ , CE = 6 cm and TE = 5 cm. Also find its area.