



ST. MARGARET SR. SEC. SCHOOL

**SAMPLE PAPER FINAL TERM EXAMINATION 2024-25
MATHEMATICS
CLASS VII**

Time: 2.5 Hrs

M.M: 60

SECTION-A

(Q1 to Q15 – MCQ Questions of 1 mark each)

Write the correct option along with the answer.

Q1. If the sum of two angles is 180° , they are called:

- (a) Complementary (b) Supplementary (c) Adjacent (d) Equal

Q2. Divide $\frac{8}{7} \div \left(\frac{-8}{49}\right)$, the result is:

- (a) 7 (b) -7 (c) 1 (d) -1

Q3. What is the longest side of a triangle called in a right-angled triangle?

- (a) base (b) perpendicular (c) hypotenuse (d) altitude

Q4. When 22.5% is converted into a fraction, we get _____

- (a) $\frac{8}{50}$ (b) $\frac{9}{4}$ (c) $\frac{3}{8}$ (d) $\frac{9}{40}$

Q5. Simplify: $(3x+2) - (x-4)$

- (a) $4x+6$ (b) $2x+6$ (c) $4x-2$ (d) $2x-6$

Q6. The rational number $\frac{21}{-28}$ in standard form is

- (a) $\frac{-3}{4}$ (b) $\frac{3}{4}$ (c) $\frac{3}{7}$ (d) $\frac{-3}{7}$

Q7. The amount for ₹1000 for 2 years at 5% p.a. is ₹ _____.

- (a) 1200 (b) 1500 (c) 1000 (d) 1100

Q8. Set of a positive and a negative integer whose difference is -3.

- (a) -2, +5 (b) +5, -2 (c) +10, -7 (d) +1, -2

Q9. Which of the following is an example of a pair of supplementary angles?

- (a) 40° and 90° (b) 60° and 120° (c) 90° and 90° (d) 30° and 90°

Q10. A triangle is not possible with sides of lengths (in cm)

- (a) 6, 4, 10 (b) 5, 3, 7 (c) 7, 8, 9 (d) 3, 7, 8

Q11. Find the value of the expression $3x+5$ for $x=2$:

- (a) 11 (b) 5 (c) 8 (d) 7

Q12. The coefficient of x in $-7xy + 5y - 3$ is:

- (a) -7 (b) 5 (c) -3 (d) -7y

Q13. The sum of angles in a triangle is:

- (a) 180° (b) 90° (c) 270° (d) 360°

Q14. Which of the following is a pair of complementary angles?

- (a) $60^\circ, 120^\circ$ (b) $76^\circ, 24^\circ$ (c) $0^\circ, 90^\circ$ (d) $160^\circ, 20^\circ$

Q15. The area of a circle of diameter 6.4 cm is

- (a) 32153.6cm^2 (b) 321.536cm^2 (c) 3215.36cm^2 (d) 32.1536cm^2

SECTION-B

(Q16 to Q22 - 2 marks each)

Q16. Find four rational numbers between -3 and -2.

Q17. Simplify and evaluate when $a = 3$ and $b = -2$:

$$(3a^2 + 4b^3 - 2b^3 - 2a^2)$$

Q18. Identify the terms and the factors of $-y^2 - 8yz - 9z^2$ by a tree diagram.

Q19. A team scores -20, 15, 10, and -5 in four rounds of a quiz. Find the total score.

Q20. Find the base, if the area of the triangle is 48cm^2 and height is 8cm.

Q21. Draw figures for the following:

- a) In ΔABC , BE is a median.
b) In ΔPQR , PQ and PR are altitudes of the triangle.

Q22. Raj sells a washing machine for ₹13,500. He loses 20% in the bargain. What was the price at which he bought it?

SECTION-C

(Q23 to Q27 - 3 marks each)

Q23. Verify that $a \div (b + c) \neq (a \div b) + (a \div c)$ for each of the following values of $a = 12$, $b = -4$ and $c = 2$.

Q24. Sachin scored twice as many runs as Rahul. Together, their runs fell two short of a double century. How many runs did each one score?

Q25. Express 98×245 as a product of prime factors in exponential form.

Q26. Find the difference between the sum of $\frac{-8}{19} + \frac{(-2)}{57}$ and sum of $\frac{-6}{38} + \frac{(3)}{57}$.

Q27. In an isosceles triangle, a base angle is four times its vertex angle. Find all the angles of a triangle.

SECTION-D

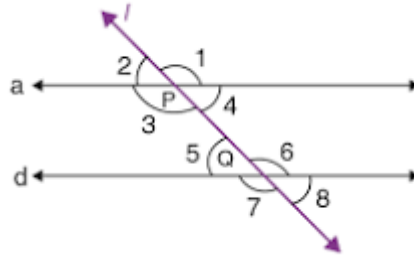
(Q28 to Q31 - 4 marks each)

Q28. A 25m long ladder is set against the wall of a house and just reaches a window at a height of 24 m above ground level. How far is the lower end of the ladder from the base of the wall? (Draw the figure)

Q29. Simplify using laws of exponents and mention the laws:

$$\frac{2^4 \times 625}{10^3 \times 16 \times 5^4}$$

Q30. In the adjoining figure, a is parallel to d and l is the transversal. Find all the unknown angles if $\angle 2 = 45^\circ$:



Q31. A circular park has a radius of 14m. Find the cost of fencing the park if the cost of fencing is ₹5 per meter. (Take $\pi = \frac{22}{7}$)