Class: VIII
SUMMATIVE ASSESSMENT TERM II 2025-26
MATHEMATICS

Time: 1 ½ Hrs.
Score: 40

Instructions:

- Use the first 15 minutes to read the questions and think about answers.
- Answer all questions; but in questions of the type A or B you need answer only one of those.
- You can answer the questions in any order, writing the correct question number.
- Answers must be explained, whenever necessary.

Section A

This section has 4 questions of score 1 each. Select the correct answer.

1. What is the result of $-8 + 3$? A) -11 B) 5 C) -5 D) 11

2. Read the given statements regarding decimal forms.
   - **Statement I:** The decimal form of $\frac{1}{3}$ is a terminating decimal.
   - **Statement II:** $\frac{1}{3} = 0.333...$ Choose the correct answer from those given below. A) Statement I is true, Statement II is false. B) Statement I is false, Statement II is true. C) Both statements are true. D) Both statements are false.

3. If the diameter of a circle is 8 cm, what is its radius? A) 16 cm B) 4 cm C) 8 cm D) 2 cm

4. If $3x = 18$, find the value of x. A) 6 B) 15 C) 21 D) 54

Section B

This section has 4 questions of score 2 each.

5. Draw a line AB of length 6 cm. Using a ruler and compass, draw the perpendicular bisector of this line.

6. In a class, the ratio of boys to girls $3 : 4$. If there are 21 boys, how many girls are there?

7. Find the missing number in the pattern: (i) $5 - 3 = 2$ (ii) $3 - 5 = -2$ (iii) $5 - 8 = ...$

8. Write the fraction $\frac{1}{8}$ in decimal form.

Section C

This section has 4 questions of score 3 each.

9. Raju's age is 3 times his son's age. After 10 years, the sum of their ages will be 60. (i) Take the son's current age as x. Write an expression for Raju's current age. (ii) Write the equation based on the sum of their ages after 10 years. (iii) Find their current ages.

10. **A)** In a circle, a chord of length 8 cm is drawn. The distance from the centre to the chord is 3 cm. (i) Draw a rough figure representing this. (ii) Calculate the radius of the circle using Pythagoras theorem.

    OR

    B) Construct a triangle with sides 4 cm, 5 cm, and 6 cm. Draw the circumcircle of this triangle.

11. The sides of a triangle are in the ratio $3 : 4 : 5$ and its perimeter is 36 cm. (i) Find the lengths of the sides of the triangle. (ii) Is this a right-angled triangle? Why?

12. **A)** Write the following as decimals: (i) $\frac{3}{10} + \frac{5}{100}$ (ii) $\frac{1}{2} + \frac{1}{4}$

    OR

    B) (i) What is the value of $\frac{1}{10} + \frac{1}{100} + \frac{1}{1000}$ in decimal form? (ii) Write the decimal form of $\frac{1}{9}$.

Section D

This section has 4 questions of score 4 each.

13. **A)** (i) Draw an angle of 60°. (ii) Construct the bisector of this angle to get an angle of 30°. (iii) Prove that any point on the angle bisector is equidistant from the arms of the angle.

    OR

    B) Draw a rhombus with diagonals of lengths 6 cm and 8 cm. Measure the length of one side.

14. A rectangle has a perimeter of 50 meters. The length is 5 meters more than the width. (i) If the width is taken as w, write the expression for the length. (ii) Form an equation for the perimeter. (iii) Find the length and width of the rectangle.

15. **A)** (i) Calculate: $-10 - 5$. (ii) Calculate: $-10 - (-5)$. (iii) An object is thrown upwards with a speed of 49 m/s. The speed decreases by 9.8 m/s every second. Using the equation $v = 49 -$

$9.8t$, find the speed at $t = 6$ seconds. (Interpret the negative sign).

OR

B) (i) Solve: $3x + 5 = 20$. (ii) From a point on a number line, if you move 4 units right and then 7 units left, at which number will you arrive if you started at 0? Write the mathematical operation.

16. The ratio of the length and width of a rectangle is $3 : 2$. (i) If the length is 18 cm, what is the width? (ii) If the rectangle is enlarged such that the ratio remains $3 : 2$ and the new width is 10 cm, what is the new length? (iii) Prove that if the sides of a rectangle are in the ratio $a : b$, its area will be a multiple of ab.