HALF YEARLY EXAMINATION, 2024-25

MATHEMATICS

Time – 3:00 Hrs. **Class – VII** **M.M. : 80**

Date – 19.09.2024 (Thursday)

Name of the student _____Section _____

GENERAL INSTRUCTIONS:

- This question paper is divided into four sections A, B, C and D.
- Section A consists of 20 questions (MCQs, fill up and match the following) of 1 mark each. **Attempt all the questions**.
- Section B consists of 5 questions of 2 marks each. **Attempt all the questions**.
- Section C consists of 7 questions of 4 marks each. **Attempt any 5 questions.**
- Section D consists of 8 questions of 5 marks each. **Attempt any 6 questions**.

SECTION – A (Attempt all the questions) (10×1=10)

Q1. Choose the correct option.

i) $5 \times \frac{2}{7} =$

a) $\frac{10}{7}$ b) $\frac{5}{7}$ c) $\frac{2}{35}$ d) $\frac{7}{10}$

ii) $24.93 \div 10 =$

a) 249.3 b) 2.493 c) 0.2493 d) 2493

iii) $x - 8 = 1$, so value of x is

a) −7 b) 7 c) 9 d) −9

iv) If two angles are complementary then sum of their measures is

a) 50° b) 80° c) 90° d) 180°

v) $4p = -20$, so value of p is

a) −5 b) 5 c) −80 d) 80

vi) If two adjacent angles are supplementary they form

a) obtuse angles b) acute angles c) complete angles d) linear pair

vii) The observation of a set of observations that occurs most often is called

a) mean b) mode c) median d) range

viii) Difference between highest and lowest observation is called

a) mean b) median c) mode d) range

ix) Sum of measures of all the angles of a triangle is

a) 180° b) 190° c) 200° d) 360°

x) Number of altitudes in a triangle is

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

Q2. Fill in the blanks. **(6×1=6)**

i) $175.32 \times 100 =$ _____.

ii) In a right-angle triangle, the side opposite to the right angle is called _____.

iii) Two angles can be supplementary if both of them are _____ angles.

iv) The middle value of a set of observations (when arranged in increasing or decreasing order) is called _____.

v) Equation for the statement '15 times m is 90' is _____.

vi) $\frac{Sum\ of\ all\ the\ observations}{Number\ of\ observations}$ = _____.

Q3. Match the following. **(4x1=4)**

i)	Commutative property	a) 19 + (−25) = −6
ii)	Associative Property	b) 5 × (7 + 9) = (5 × 7) + (5 × 9)
iii)	Distributive Property	c) 2 × 9 × 12 = 9 × 12 × 2
iv)	Closure property	d) 25 + (12 +34) = (25 + 12) + 34

SECTION – B (Attempt all the questions) (5x2=10)

Q4. A batsman scored the following number of runs in 5 innings. Find the median of this data.

45, 30, 55, 50, 40

Q5. Find the value of (−10) × (−18) × 5.

Q6. $3x$ +15 = 60, Find the value of x.

Q7. What is the measure of supplement of 70°?

Q8. Measure of two angles of a triangle are 35° and 70°. What is the measure of third angle?

SECTION – C (Attempt any five questions) (5x4=20)

Q9. Each side of a regular polygon is 2.5 cm in length. The perimeter of the polygon is 17.5 cm. How many sides does the polygon have?

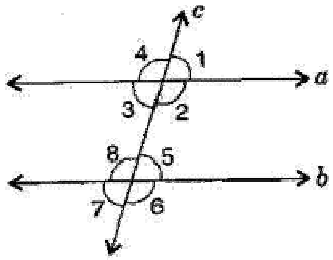
Q10. The marks obtained by a group of students in a maths test are 75, 80, 82, 78, and 95. Find the mean marks obtained by the group.

Q11. Write the following statements in the form of equations.

i) Sum of 5 times x and 8 is 38.

ii) 7 subtracted from one third of p is 13.

Q12. In the given figure, identify



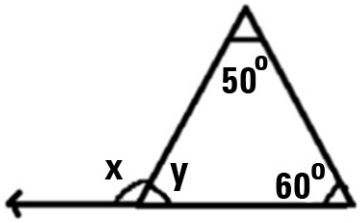
i) One pair of corresponding angles

ii) One pair of alternate interior angles

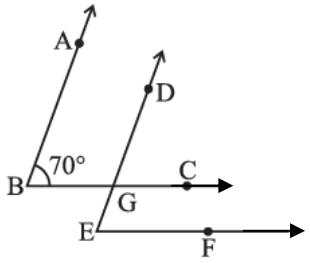
iii) One pair of vertically opposite angles

iv) One pair of interior angles in the same side of transversal

Q13. Find out the values of x and y. Also write the properties used.



Q14. In the above figure, the arms of two angles are parallel. (BA || ED and BC || EF)



If ∠ABC = 70°, then find

(i) ∠DGC (ii) ∠DEF

Q15. People of Sundargram planted trees in the village garden. Some of the trees were fruit trees. The number of non-fruit trees were two more than three times the number of fruit trees. What was the number of fruit trees planted if the number of non-fruit trees planted was 86?

SECTION – D (Attempt any Six questions) (6x5=30)

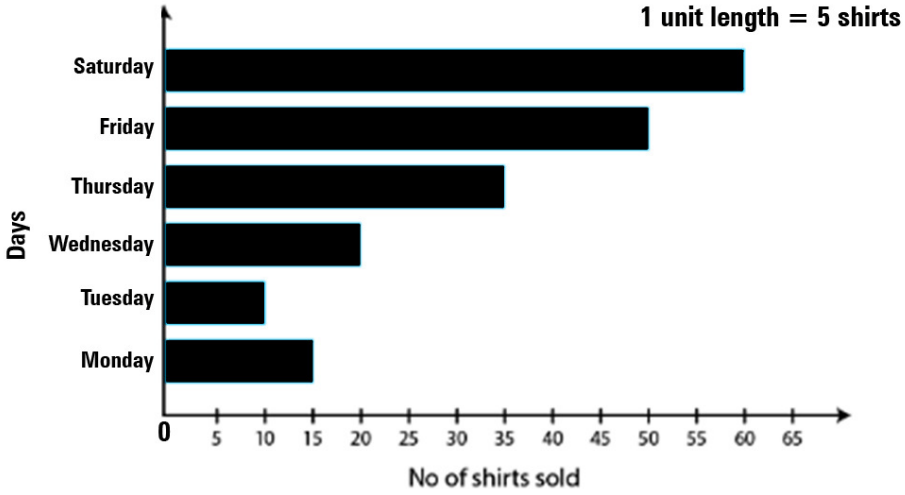
Q16. In a class test containing 10 questions, 5 marks are awarded for every correct answer and (–2) marks are awarded for every incorrect answer and 0 for questions not attempted.

(i) Mohan gets four correct and six incorrect answers. What is his score?

(ii) Reshma gets five correct answers and five incorrect answers. What is her score?

Q17. A car runs 16 km using 1 litre of petrol. How much distance will it cover using $2\frac{1}{4}$ litre of petrol?

Q18. Study the bar chart and answer the questions.



(a) What information does the above bar graph give?

(b) What is the scale chosen on the horizontal line representing number of shirts?

(c) On which day were the minimum numbers of shirts sold?

(d) How many shirts were sold on Thursday?

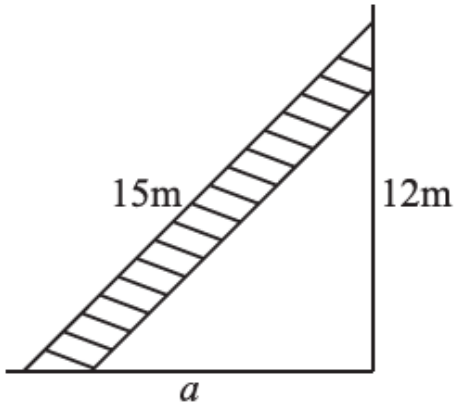
(e) On which day were the maximum numbers of shirts sold? How many shirts were sold on that day?

Q19. The performance of a student in the 1st Term and 2nd Term is given.

Subject	English	Hindi	Maths	Science	S.Sc
1st Term (M.M. 100)	67	72	88	81	73
2nd Term (M.M. 100)	70	65	95	85	75

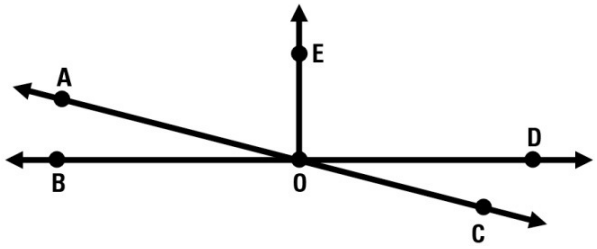
Draw a double bar graph choosing appropriate scale.

Q20. A 15 m long ladder reached a window 12 m high from the ground on placing it against a wall at a distance '***a***'. Find the distance (***a***) of the foot of the ladder from the wall.



Q21. Find the perimeter of the rectangle whose length is 40 cm and a diagonal is 41 cm.

Q22. From the given figure, name the following pairs of angles.



a) Adjacent complementary angles.

b) Vertically opposite angles.

c) Equal supplementary angles.

d) Unequal supplementary angles.

e) Adjacent angles that do not form linear pair.

Q23. Rani's father is 48 years old. He is 6 years older than 3 times of Rani's age. What is Rani's age?