

PT-2/HALF YEARLY EXAMINATION, 2022-23
MATHEMATICS

Time – 3 hours

Class – VII

M.M. : 80

Date – 10.09.2022 (Saturday)

Name of the student _____ Section _____

GENERAL INSTRUCTIONS:

- The question paper consists of 17 questions divided into 3 sections A, B, C.
- Section A comprises 3 questions.
(Q1-MCQ , Q2- Fill in the blanks & Q3 – answer the questions)
- Section B comprises 6 questions. Attempt **any 5**.
- Section C comprises 8 questions. Attempt **any 6**.
- Draw neat diagrams wherever needed and Show the required calculation in fair.

SECTION –A

(All the questions are compulsory)

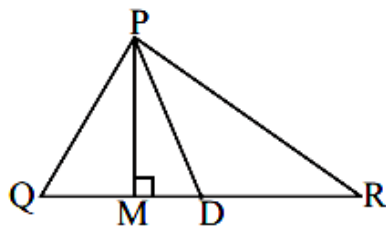
Q1. Choose the most appropriate option for each of the following: 1x10=10

- i) Additive inverse of an integer 5 is:
a) 5 b) 1 c) -5 d) None of these
- ii) $\frac{7}{4}$ is an example of fraction.
a) proper b) improper c) mixed d) equivalent
- iii) The average of a set of observations is known as.....
a) mean b) mode c) median d) None of these
- iv) Expression for “taking away 5 from ‘x’ gives 9” is:
a) $x+9=5$ b) $x+5=9$ c) $x-5=9$ d) None of these
- v) Two angles are called complementary when their sum is equal to.....
a) 60° b) 90° c) 180° d) None of these
- vi) Aconnects a vertex of a triangle to the mid-point of the opposite side.
a) side b) median c) diameter d) None of these
- vii) At Srinagar temperature was -5°C on Monday and then it dropped by 3°C on Tuesday. What was the temperature of Srinagar on Tuesday?
a) -3°C b) 2°C c) -8°C d) -7°C
- viii) $2 \times \frac{5}{4} = \text{.....?.....}$
a) $\frac{5}{8}$ b) $\frac{5}{4}$ c) $\frac{5}{2}$ d) None of these

- ix) The ages (in years) of 5 teachers of a school are: 25, 33, 40, 32, and 40. Find its range?
 a) 40 b) 25 c) 15 d) None of these
- x) Vertically opposite angles are always
 a) equal b) supplementary c) complementary d) None of these

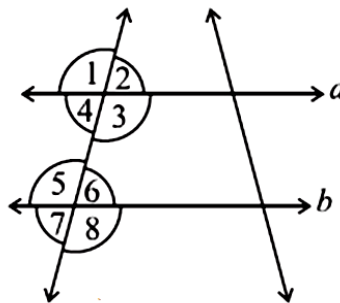
Q2. Fill in the blanks to make the given statements correct. 1x4=4

- i) Two adjacent supplementary angles make a pair of angles.
 ii) The triangle whose two sides are equal in length is known as.....triangle.
 iii) $8 - (-4) = \dots\dots\dots?$
 iv) In triangle PQR line segment..... is the altitude of the triangle.



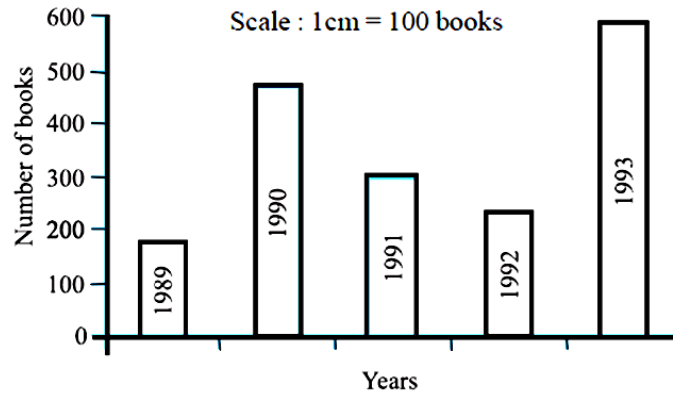
Q3. Answer the following questions: 2x8=16

- i) Find the product : $26 \times (-48) + (-48) \times (-36) = ?$
 ii) A car runs 16 km using 1 litre of petrol. How much distance will it cover using $1\frac{1}{4}$ litres of petrol?
 iii) The heights of 5 girls were measured (in cm) and the results are as follows:
 135, 150, 128, 151, 139
 What is the median of the data?
 iv) Find the value of m in the given expression : $16 + 4m = 0$
 v) See the following figure then state the property used in : if $\angle 4 = \angle 6$, then $a \parallel b$.



- vi) Is it possible to have a triangle with sides 3cm, 6cm and 7cm?
 vii) Raju's father's age is three times more than Raju's age. Find Raju's age, if his father is 45 years old.

- viii) Read the bar graph and answer the questions that follow:
- About how many books were sold in 1989?
 - In which year were about 475 books sold?

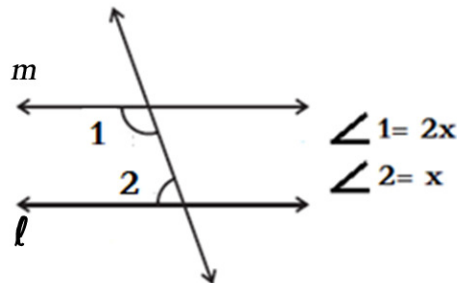


SECTION - B

(Attempt **ANY 5** questions from this section)

4x5=20

- Q4. 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.
- Reshma gets five correct answers and five incorrect answers, what is her score?
 - Mohan gets four correct and six incorrect answers. What is his score?
- Q5. Vidya and Pratap went for a picnic. Their mother gave them a water bag that contained 5 litres of water. Vidya consumed $\frac{2}{5}$ of the water. Pratap consumed the remaining water.
- How much water did Vidya drink?
 - What fraction of the total quantity of water did Pratap drink?
- Q6. The marks scored by 10 students of a class are: 33, 41, 28, 54, 33, 26, 23, 33, 38, 40.
- Find the mode of the data.
 - What is the mean score of the students?
- Q7. "Sarojini subtracted 11 from twice a number, the result was 15". Find the number.
- Q8. Find the value of marked angles in the following figure if **line l** is parallel to **line m**.



- Q9. A tree is broken at a height of 5 m from the ground and its top touches the ground at a distance of 12 m from the base of the tree. Find the original height of the tree.

SECTION - C

(Attempt ANY 6 questions from this section)

5x6=30

Q10. A certain freezing process requires that room temperature be lowered from 40°C at the rate of 5°C every hour. What will be the room temperature 10 hours after the process begins?

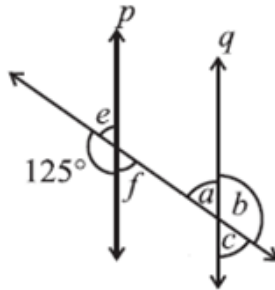
Q11. Find: $3\frac{1}{5} \div 1\frac{2}{3}$

Q12. The performance of a student in 1st Term and 2nd Term is given. Draw a double bar graph for given marks choosing an appropriate scale: (Use graph sheet)

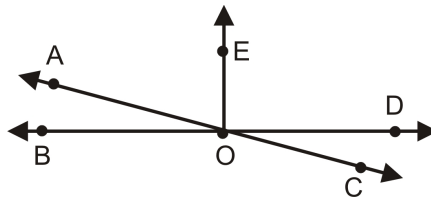
Subject	English	Hindi	Maths	Science	S.Science
1 st Term (M.M. 100)	67	72	88	81	73
2 nd Term (M.M. 100)	70	65	95	85	75

Q13. The diagonals of a rhombus measure 16 cm and 30 cm. Find its perimeter.

Q14. In the adjoining figure, $p \parallel q$. Find the unknown angles. Mention the properties used.



Q15. In the adjoining figure, name any one pair of angles for each.

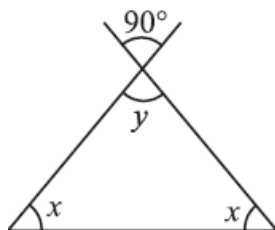


(i) Obtuse vertically opposite angles

(ii) Unequal supplementary angles

(iii) Adjacent angles that do not form a linear pair

Q16. Find the unknown angles x & y .



Q17. Find the value of P.

$$4 - 5(P + 1) = 34$$

