

O. P. JINDAL SCHOOL, SAVITRI NAGAR
Annual Examination - (2022 – 2023)
Sample Paper

Class / Section: VII
Subject: Mathematics

Name: _____

MM: 80
Time: 3 Hrs.

Roll No. : _____

(Fifteen Minutes Extra will be given for reading the Question Paper.)

General Instructions:

- (i) This question paper has 5 sections A-E.
- (ii) Section A has 20 MCQs carrying 1 mark each.
- (iii) Section B has 5 questions carrying 2 marks each.
- (iv) Section C has 6 questions carrying 3 marks each.
- (v) Section D has 4 questions carrying 5 marks each.
- (vi) Section E has 3 case based integrated units of assessment (04 marks each) with sub-parts of the values of 1 mark each.
- (vii) All the questions are compulsory. There is no overall choice. However an internal choice has been provided. You have to attempt only one of the alternatives in all questions.

SECTION – A

- Q1.** Write equation for the statement “Ten times x is 70.”
- a) $x + 10 = 70$ b) $x - 10 = 70$ c) $x \div 10 = 70$ d) $10x = 70$
- Q2.** Find the ratio of 3km to 30m.
- a) 30 : 1 b) 100 : 1 c) 1 : 10 d) None of these
- Q3.** Find complement of 67° .
- a) 113° b) 20° c) 90° d) 23°
- Q4.** Two angles of a triangle are 54° and 100° find its third angle.
- a) 50° b) 23° c) 36° d) 26°
- Q5.** Which angle included between the sides DE and EF of $\triangle DEF$?
- a) $\angle D$ b) $\angle E$ c) $\angle F$ d) None of these
- Q6.** Find the lines of symmetry in letter Z of English alphabet.
- a) One line b) Two lines c) Three lines d) No line

- Q7.** If the base and height of a triangle are 12 m and 8 m respectively, then find its area.
- a) 48 m^2 b) 96 m^2 c) 16 m^2 d) 40 m^2
- Q8.** How many edges are in a cube?
- a) 9 b) 8 c) 12 d) 10
- Q9.** Find the mode of the data: 10,23,45,34,10,45,24,10,36,12,10,12,45,34
- a) 10 b) 12 c) 45 d) 23
- Q10.** If $40 + x = 10$, then find x.
- a) 50 b) -50 c) 30 d) -30
- Q11.** Convert into percentage: $\frac{12}{16}$
- a) 12% b) 75% c) 50% d) 16%
- Q12.** What is the angle of rotational of square?
- a) 180° b) 54° c) 90° d) 72°
- Q13.** Find circumference of the circle with radius 14 cm.
- a) 44 cm b) 88 cm c) 66 cm d) 110 cm
- Q14.** Find number of faces in a tetrahedron.
- a) 4 b) 5 c) 6 d) 8
- Q15.** Find median of the data: 70, 18, 44, 0, 54
- a) 14 b) 18 c) 44 d) 0
- Q16.** What is the shape of each face of a cuboid?
- a) Square b) Rectangle c) Circle d) Triangle
- Q17.** If $\triangle DEF \cong \triangle MNP$ by ASA congruence rule and it is given that $\angle D = \angle M$ and $\angle F = \angle P$, then what additional information is needed for this congruence rule.
- a) $DE = MN$ b) $DF = MP$ c) $EF = NP$ d) none of these

- Q18.** In a ΔPQR , angle Q is right angle and PR is the longest side, then
 a) $PQ^2 = PR^2 + QR^2$ b) $PR^2 = PQ^2 + QR^2$ c) $QR^2 = PQ^2 + PR^2$ d) none of these
- Q19.** If $(x + 1)^\circ$ and 101° are supplementary, then find x.
 a) 30° b) 78° c) 58° d) 28°
- Q20.** For the situation “A tossed coin will land heads up” can be say that
 a) Certain to happen b) Impossible
 b) Can happen but not certain d) none of these

SECTION – B

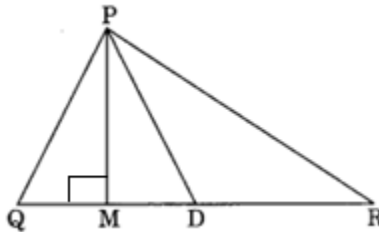
Q21. Solve: $2q + 6 = 12$

OR

Solve: $3m \div 5 = 6$

Q22. In ΔPQR , D is the mid-point of \overline{QR} .

- (i) \overline{PM} is _____ (ii) PD is _____



Q23. The perimeter of a rectangular sheet is 100 cm. If the length is 35 cm, find its breadth.

OR

The perimeter of a square is 40 cm, find its area.

Q24. Write number of lines of symmetry in a square and draw it.

Q25. Draw the net of cube.

SECTION – C

Q26. The runs scored in a cricket match by 11 players are as follows:

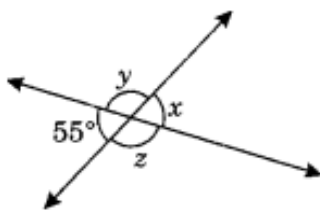
6, 15, 120, 50, 100, 80, 10, 15, 8, 10, 15

Find the mean and median of this data.

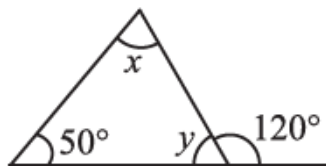
OR

Find the mean of first five even numbers. Also find median.

Q27. Find the values of the angles x , y and z in each of the following:

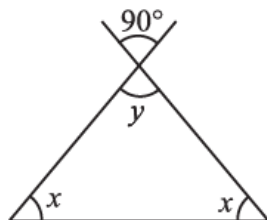


Q28. Find the values of the unknowns x and y .



OR

Find the values of x and y .



Q29. Construct a triangle ABC where $\angle A = 60^\circ$, $\angle B = 30^\circ$ and $AB = 5.8$ cm.

OR

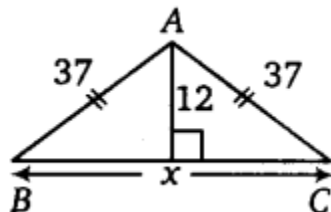
Construct a $\triangle XYZ$ in which $XY = 4.5$ cm, $YZ = 5$ cm and $ZX = 6$ cm.

Q30. Juhi sells a washing machine for ₹13,500. She loses 20% in the bargain. What was the price at which she bought it?

Q31. Write order of rotational symmetry and draw rotational symmetry in equilateral triangle.

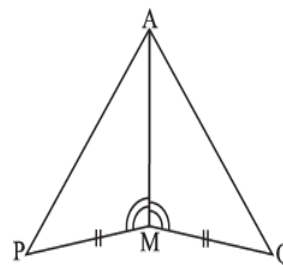
SECTION – D

Q32. Find the value of x , if $AB = AC = 37$ cm and perpendicular from A to BC is 12 cm.



Q33. Write the missing reasons.

Steps	Reasons
(i) $PM = QM$	(i)
(ii) $\angle PMA = \angle QMA$	(ii)
(iii) $AM = AM$	(iii)
(iv) $\triangle AMP \cong \triangle AMQ$	(iv)



Q34. Find the interest and amount to be paid at the end of 3 years when principal = ₹1,200 at 12% p.a.

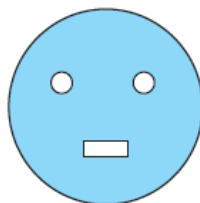
OR

An article was sold for ₹250 with a profit of 5%. What was its cost price?

Q35. Two cross roads, each of width 10 m, cut at right angles through the centre of a rectangular park of length 700 m and breadth 300 m and parallel to its sides. Find the area of the roads. Also find the area of the park excluding cross roads. Give both answers in hectares.

OR

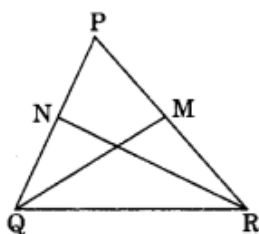
From a circular card sheet of radius 14 cm, two circles of radius 3.5 cm and a rectangle of length 3 cm and breadth 1cm are removed. As shown in the figure. Find the area of the remaining sheet.



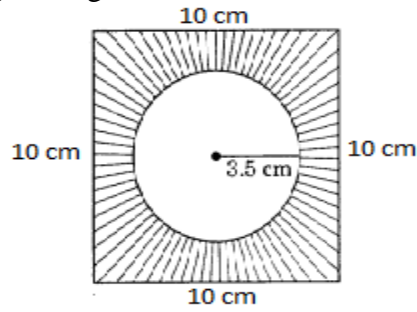
SECTION - E

Q36. In the given figure, PQR is a triangle in which $PQ = PR$. QM and RN are the medians of the triangle.

- (i) $\triangle NQR$ is congruent to which triangle?
- (ii) Is $QM = RN$?
- (iii) $\triangle PMQ \cong \triangle PNR$ by which congruence rule.
- (iv) Write congruence rule of part (i).

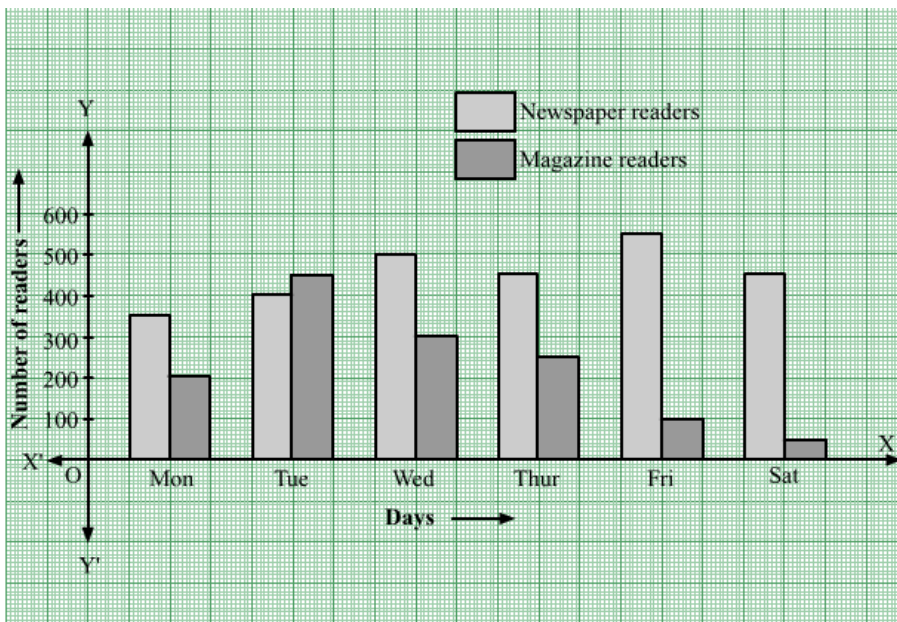


Q37. Write the answer from the given figure:



- (i) What is the area of the square?
- (ii) What is the area of the circle?
- (iii) What is circumference of the circle?
- (iv) What is the area of the shaded part?

Q38. Observe the graph and answer the questions given below.



- (i) Which day newspaper readers are maximum than magazine reader?
- (ii) How many total newspaper readers are there in first three days of the week?
- (iii) In which day difference of newspaper and magazine readers is minimum?
- (iv) How many total readers of magazine in all six days?
