

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 5marks 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

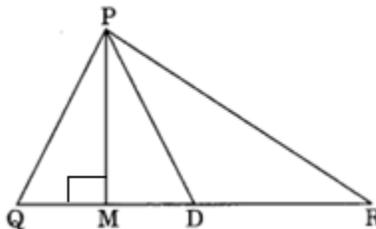
Q21. Solve: $2q + 6 = 12$

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:

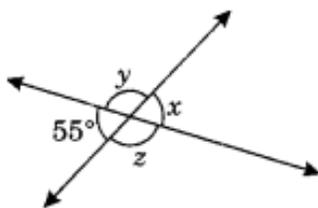
6, 15, 120, 50, 100, 80, 10, 15, 8, 10, 15

Find the mean and median of this data.

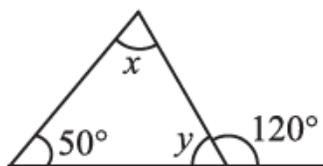
OR

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:

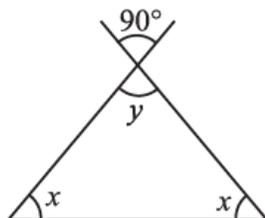


Q28. Find the values of the unknowns x and y .



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

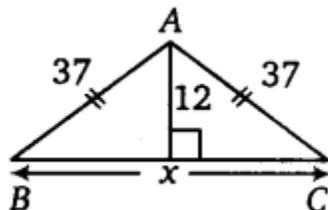
Construct a $\triangle XYZ$ in which $XY = 4.5$ cm, $YZ = 5$ cm and $ZX = 6$ cm.

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.

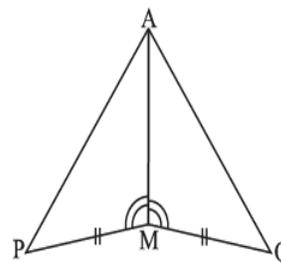
SECTION – D

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.

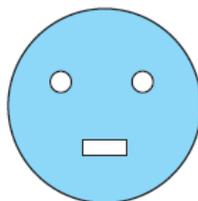
OR

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

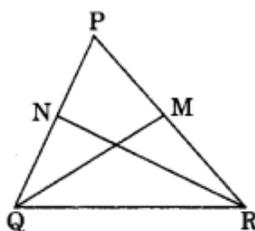
From a circular card sheet of radius 14 cm, two circles of radius 3.5 cm and a rectangle of length 3 cm and breadth 1cm are removed. As shown in the figure. Find the area of the remaining sheet.



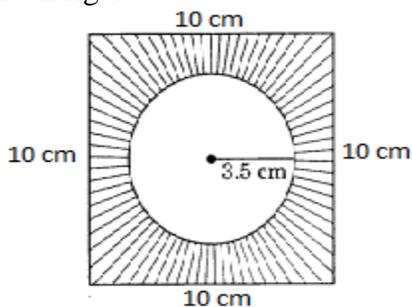
SECTION - E

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).

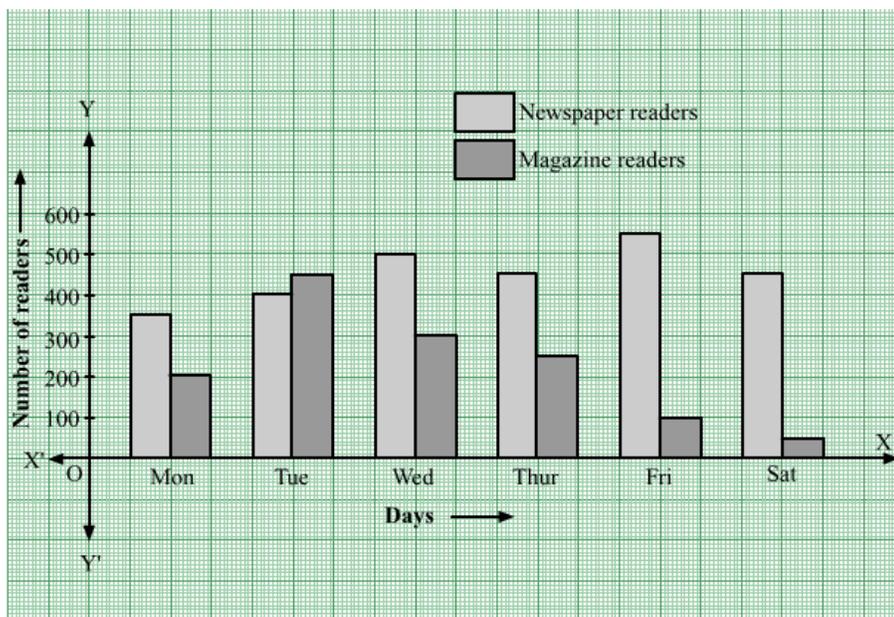


Q37. Write the answer from the given figure:



- (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?
