KENDRIYA VIDYALAYA GACHIBOWLI, GPRA CAMPUS, HYD–32

SAMPLE PAPER 01 FOR HALF YEARLY EXAM (2019-20)

SUBJECT: MATHEMATICS

BLUE PRINT FOR HALF YEARLY EXAM: CLASS VII

Chapter	MCQ (1 mark)	VSA (1 mark)	SA – I (2 marks)	SA – II (3 marks)	LA (4 marks)	Total
Integers	1(1)	1(1)	**2(1)***	3(1)	4(1)	**11(5)**
Fractions and Decimals	1(1)	2(2)	2(1)	3(1)	**4(1)***	**12(6)**
Data Handlings	1(1)	1(1)	--	3(1)	4(1)	**9(4)**
Simple Equations	1(1)	1(1)	2(1)	3(1)	4(1)	**11(5)**
Lines and Angles	2(2)	1(1)	2(1)	**3(1)***	--	**8(5)**
Triangle and its properties	1(1)	1(1)	2(1)	--	**4(1)***	**8(4)**
Congruence of Triangles	1(1)	1(1)	2(1)	**3(1)*** 3(1)	--	**10(5)**
Comparing Quantities	2(2)	2(2)	--	3(1)	4(1)	**11(6)**
Total	**10(10)**	**10(10)**	**12(6)**	**24(8)**	**24(6)**	**80(40)**

MARKING SCHEME FOR PERIODIC TEST - II

SECTION	MARKS	NO. OF QUESTIONS	TOTAL
MCQ	1	10	10
VSA	1	10	10
SA – I	2	6	12
SA – II	3	8	24
LA	4	6	24
GRAND TOTAL			**80**

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SAMPLE PAPER 01 FOR HALF YEARLY EXAM (2019-20)

SUBJECT: MATHEMATICS **MAX. MARKS : 80**

CLASS : VII **DURATION : 3 HRS**

General Instructions:

(i). **All** questions are compulsory.

(ii). This question paper contains 4**0** questions divided into four Sections A, B, C and D.

(iii). **Section A** comprises of 20 questions of **1 mark** each. **Section B** comprises of 6 questions of **2 marks** each. **Section C** comprises of 8 questions of **3 marks** each and **Section D** comprises of 6 questions of **4 marks** each.

(iv). There is no overall choice. However, an internal choice has been provided in two questions of 2 marks each, two questions of 3 marks each and two questions of 4 marks each. You have to attempt only one of the alternatives in all such questions.

(v). Use of Calculators is not permitted

SECTION – A

Questions 1 to 20 carry 1 mark each.

1. In a DABC, $\angle A = 35^0$ and $\angle B = 65^0$, then the measure of $\angle C$ is
(a) 50^0 (b) 80^0 (c) 30^0 (d) 60^0

2. In triangles DEF and PQR, $\angle E = 80^o$, $\angle F = 30^o$, EF = 5 cm, $\angle P = 80^o$, PQ = 5 cm, $\angle R = 30^o$, By which congruence rule the triangles are congruent ?
(a) SAS (b) RHS (c) ASS (d) none of these

3. Out of 15,000 voters in a constituency, 60% voted. Find the number of voters who did not vote.
(a) 9000 (b) 6000 (c) 3000 (d) none of these

4. Meeta saves Rs 400 from her salary. If this is 10% of her salary. What is her salary?
(a) 4000 (b) 6000 (c) 3000 (d) none of these

5. Identify which of the following pairs of angles are complementary
(a) 65^o, 115^o (b) 63^o, 27^o (c) 112^o, 68^o (d) 130^o, 50^o

6. If two angles are complementary, then the sum of their measures is _____.
(a) 45^0 (b) 180^0 (c) 90^0 (d) 360^0

7. Which is a solution of the equation 2x = 12
(a) x = 2 (b) x = 3 (c) x = 4 (d) x = 6

8. The median of the first ten natural number is _____ .
(a) 2.5 (b) 5.5 (c) 3.5 (d) 4.5

9. The value of 43.07 x 100 is
(a) 4.307 (b) 4307 (c) 43.07 (d) 430.7

10. Which of the following statement is true
(a) 7 – 4 = 4 – 7 (b) 7 – 4 > 4 – 7 (c) 7 – 4 < 4 – 7 (d) 7 – 4 = – 3

11. Solve: y + 4 = – 4

12. Find the median of the data: 24, 36, 46, 17, 18, 25, 35

13. Evaluate: (–31) ÷ [(–30) + (–1)]

14. Find $12 \div \frac{3}{4}$

15. Find the ratio of 15 kg to 210 g

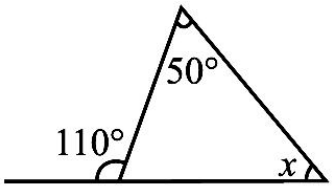
16. Out of 25 children in a class, 15 are girls. What is the percentage of girls?

17. It is to be established by RHS congruence rule that $\Delta ABC \cong \Delta RPQ$. What additional information is needed, if it is given that $\angle B = \angle P = 90^\circ$ and AB = RP?

18. Express 7 rupees 7 paise as rupees using decimals.

19. Find the angle, which is equal to its complement.

20. Find angle *x* in the adjoining figure:



SECTION – B

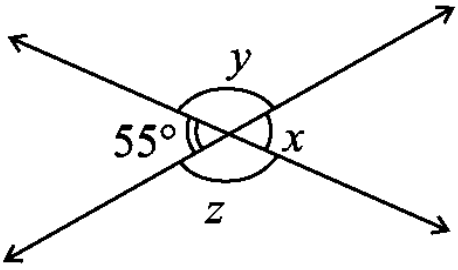
Questions 21 to 26 carry 2 marks each.

21. Solve: $12p - 5 = 25$

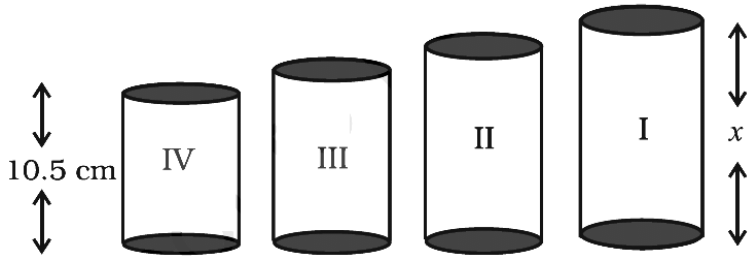
OR

Solve: $\frac{3p}{4} = 6$

22. Find the values of the angles *x*, *y*, and *z* in the given figure:



23. There are four containers that are arranged in the ascending order of their heights. If the height of the smallest container given in the figure is expressed as $\frac{7}{15}x = 10.5$ cm. Find the height of the largest container.



24. Find: (a) (–36) ÷ (– 4) (b) (–201) ÷ (–3)

OR

Find the product, using suitable properties: 26 × (– 48) + (– 48) × (–36)

25. If $\Delta ABC \cong \Delta FED$ under the correspondence ABC ↔ FED, write all the corresponding congruent parts of the triangles.

26. Δ ABC is right-angled at C. If AC = 5 cm and BC = 12 cm find the length of AB.

SECTION – C

Questions 27 to 34 carry 3 marks each.

27. The runs scored in a cricket match by 11 players is as follows:

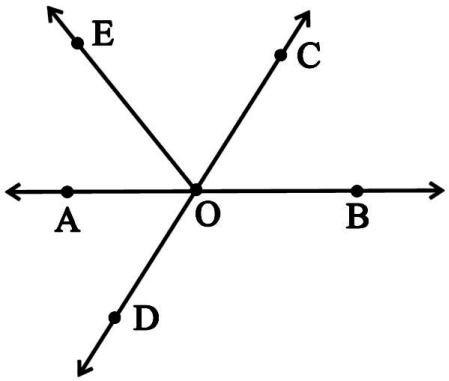
6, 15, 120, 50, 100, 80, 10, 15, 8, 10, 15

Find the mean, mode and median of this data.

28. In the adjoining figure, identify:

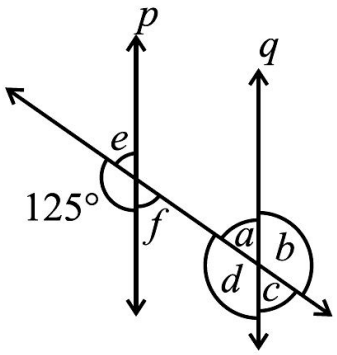
(i) Five pairs of adjacent angles. (ii) Three linear pairs.

(iii) Two pairs of vertically opposite angles.



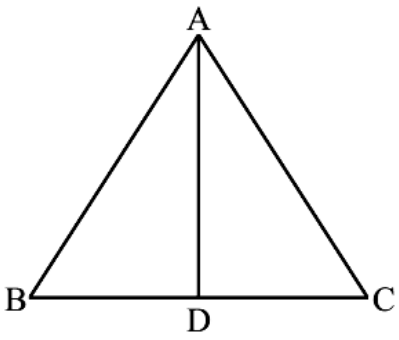
OR

In the adjoining figure, $p \parallel q$. Find the unknown angles.



29. In the below figure, AB = AC and D is the mid-point of BC . Prove that (i) $\Delta ADB \cong \Delta ADC$

(ii) $\angle B = \angle C$

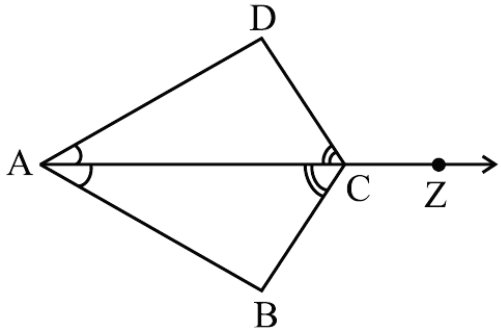


30. In the below figure, ray AZ bisects $\angle DAB$ as well as $\angle DCB$.

(i) State the three pairs of equal parts in triangles BAC and DAC.

(ii) Is $\Delta BAC \cong \Delta DAC$? Give reasons.

(iii) Is AB = AD? Justify your answer.



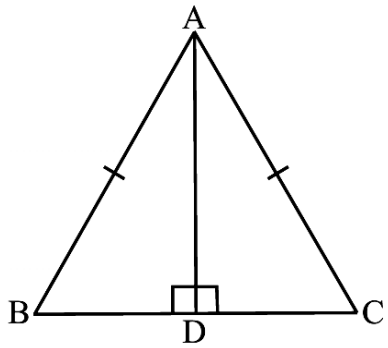
OR

In the below figure, ABC is an isosceles triangle with AB = AC and AD is one of its altitudes.

(i) State the three pairs of equal parts in ΔADB and ΔADC.

(ii) Is $\Delta ADB \cong \Delta ADC$? Why or why not?

(iii) Is $\angle B = \angle C$? Why or why not?



31. It takes 17 full specific types of trees to make one tonne of paper. If there are 221 such trees in a forest, then (i) what fraction of forest will be used to make; (a) 5 tonnes of paper. (b) 10 tonnes of paper. (ii) To save $\frac{7}{13}$ part of the forest how much of paper we have to save.

32. In a furniture shop, 24 tables were bought at the rate of ` 450 per table. The shopkeeper sold 16 of them at the rate of ` 600 per table and the remaining at the rate of 400 per table. Find her gain or loss percent.

33. People of Sundargram planted a total of 102 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?

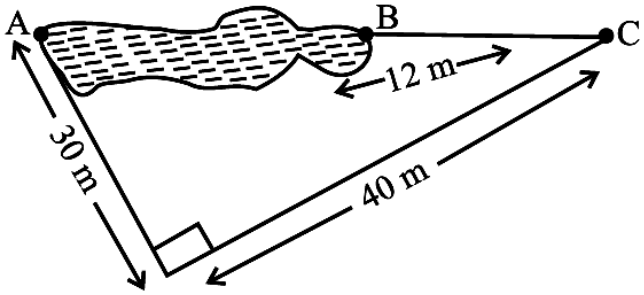
34. A certain freezing process requires that room temperature be lowered from 40°C at the rate of 5°C every hour. What will be the room temperature 10 hours after the process begins?

SECTION – D

Questions 35 to 40 carry 4 marks each.

35. In a test (+5) marks are given for every correct answer and (–2) marks are given for every incorrect answer. (i) Radhika answered all the questions and scored 30 marks though she got 10 correct answers. (ii) Jay also answered all the questions and scored (–12) marks though he got 4 correct answers. How many incorrect answers had they attempted?

36. Points A and B are on the opposite edges of a pond as shown in below figure. To find the distance between the two points, the surveyor makes a right-angled triangle as shown. Find the distance AB.



OR

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.

37. A memorial trust donates ` 5,00,000 to a school, the interest on which is to be used for awarding 3 scholarships to students obtaining first three positions in the school examination every year. If the donation earns an interest of 12 per cent per annum and the values of the second and third scholarships are ` 20,000 and ` 15,000 respectively, find out the value of the first scholarship.

38. Solve the riddle "What is too much fun for one, enough for two, and means nothing to three?" The answer to this is hidden in the equations given below.

If $4c = 16$, then $c = ?$

If $4e + 8 = 20$, then $e = ?$

If $2r - 3 = 7$, then $r = ?$

If $3t + 8 = 29$, then $t = ?$

If $2s + 4 = 4s$, then $s = ?$

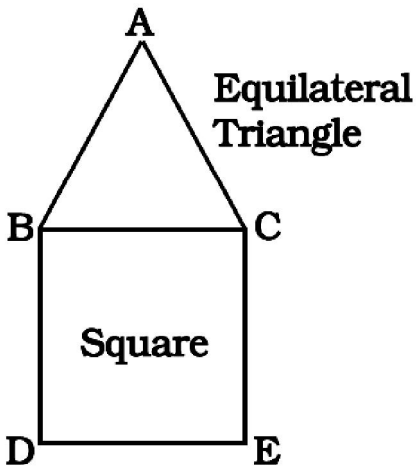
To get the answer substitute the numbers for the letters it equals in the following:

$$\frac{\square}{2},\frac{\square}{3},\frac{\square}{4},\frac{\square}{5},\frac{e}{\square},\frac{\square}{7}$$

39. A man travelled two fifth of his journey by train, one-third by bus, one-fourth by car and the remaining 3 km on foot. What is the length of his total journey?

OR

A square and an equilateral triangle have a side in common. If side of triangle is $\frac{4}{3}$ cm long, find the perimeter of figure formed.



40. The table below gives the flavours of ice cream liked by children (boys and girls) of a society. Study the table and answer the following questions:

Flavours	**Vanilla**	**Chocolate**	**Strawberry**	**Mango**	**Butterscotch**
Boys	4	9	3	8	13
Girls	8	12	7	9	10

(a) Draw a double bar graph using appropriate scale to represent the above information.
(b) Which flavour is liked the most by the boys?
(c) How many girls are there in all?
(d) Find the ratio of children who like strawberry flavour to vanilla flavour of ice cream.