

INDIAN SCHOOL SALALAH
SECOND TERM EXAMINATION, 2017 – 2018

MATHEMATICS

MAX.MARKS:80

CLASS VII

TIME: 2½ HOURS

GENERAL INSTRUCTIONS

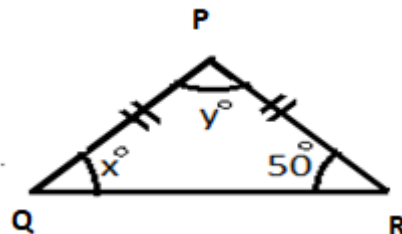
- a) All the questions are compulsory
- b) This question paper consists of 30 questions divided into 4 sections. Section A contains 6 questions of 1 mark each. Section B contains 6 questions of 2 marks each. Section C contains 10 questions of 3 marks each. Section D contains 8 questions of 4 marks each.
- c) Internal choices have been provided in Section C and Section D. You have to attempt only one of the choices in such questions.

SECTION A (1 Mark each)

1. Express 5 kg 75 g in kg.
2. The two interior opposite angles of a triangle are 70° and 25° . Find the measure of the exterior angle.
3. $\triangle KLM \cong \triangle PNR$, write the parts of $\triangle PNR$ that correspond to (i) KM (ii) $\angle LMK$
4. Find the ratio of 3 m to 6 cm.
5. Identify the greater number: 2^5 or 5^2
6. Classify into monomials, binomials and trinomials. (i) $75x^5y^2z + 9$ (ii) $4abcd^2$

SECTION B (2 Marks each)

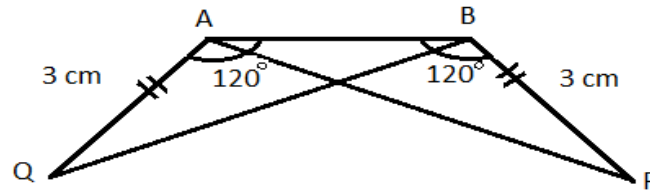
7. In the figure, find the values of x and y.



8. Fill in the blanks:

- | | |
|--|--|
| i) $23.5 \times 10 = \underline{\hspace{2cm}}$. | iii) $0.24 \times 1000 = \underline{\hspace{2cm}}$ |
| ii) $5.75 \div 100 = \underline{\hspace{2cm}}$. | iv) $0.085 \div 10 = \underline{\hspace{2cm}}$ |

9. Which congruence criterion will you use in the following figure to show the $\triangle ABQ$ is congruent to $\triangle BAP$? Write the congruence in symbolic form.



10. Convert the following into per cent:

i. $\frac{3}{5}$

ii. 0.45

11. Express the following numbers in the standard form

i. 40510000000

ii. 2367.25

12. Find the values of the following expressions for $m = 2$.

i. $m + 11$

ii. $5 - m^2$

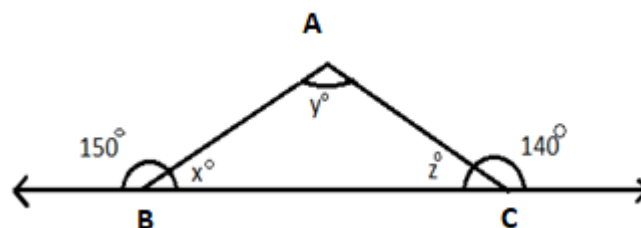
SECTION C (3 Marks each)

13. A farmer had a large field of dimensions 100.1 m by 24.5 m. Find the area of the field. He left $\frac{1}{3}$ of this area to make a playground for the children of locality. What value of the farmer is reflected in this act?
14. Answer the following questions:
- Is it possible to have a triangle with the following sides 4 cm, 6 cm and 9 cm?
 - State the angle sum property of a triangle.

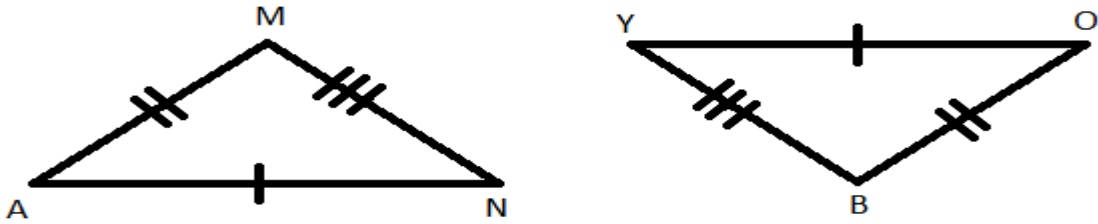
OR

If the lengths of two sides of a triangle are 11 cm and 15 cm, then what can be the length of the third side? Also state the exterior angle property of a triangle.

15. The following figure, determine the value of x , y and z .



16. In the following figure, state the three pairs of equal parts in $\triangle MAN$ and $\triangle BOY$.
Is $\triangle MAN \cong \triangle BOY$? Why or why not?



17. Construct a $\triangle KLM$, given that $KL = 4$ cm, $LM = 5.5$ cm and $KM = 7$ cm.
18. Out of 20 children in a class, 12 are boys. What is the percentage of girls in the class?
Also find the value of 60% of 20.

OR

A computer costing ₹ 60000 one year ago, now costs ₹ 40000. Find the percentage increase or decrease in the price.

19. Solve: $3(m + 7) = 36$

OR

The sum of three times a number and 15 is 42. Find the number.

20. Add the following: $54ab + 21a^2 - 4b^2$ and $7b^2 + 9a^2 - 45ab$.

OR

Subtract $4m^2 - 5mn + n^2$ from $18m^2 - 2mn - 5n^2$

21. Express 432×125 as the product of powers of their prime factors.
22. Simplify the expression $4(x^2 + xy) - 2xy + 7$ and find its value when $x = 2$
and $y = -1$.

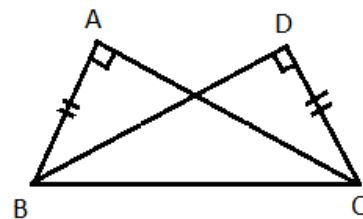
SECTION D (4 Marks each)

23. The product of two decimals is 3.392. If one of them is 1.6, find the other.

OR

The cost of 2.4 m of ribbon is ₹ 56.96. Find the cost of one metre of ribbon.

24. In the adjoining figure, $AB = DC$ and $\angle A = \angle D = 90^\circ$
- State three pairs of equal parts in $\triangle ABC$ and $\triangle DCB$.
 - Is $\triangle ABC \cong \triangle DCB$? Give reason.
 - Is $AC = DB$?
 - Is $\angle ABC = \angle DCB$?



25. Construct a ΔDEF such that $EF = 8$ cm, $\angle E = 45^\circ$ and $\angle F = 60^\circ$.

Find the measure of $\angle D$.

OR

Construct a right angled triangle, right angled at R in which $PQ = 10$ cm and $QR = 6$ cm. Also find the length of PR.

26. The diagonals of a rhombus are 16 cm and 12 cm. Find its perimeter.

OR

The adjacent sides of a rectangle are 9 cm and 12 cm. Find the length of the diagonal.

27. Selling price of a toy car is ₹1080. If the profit made by the shopkeeper is 20%, what is the cost price of the toy?

28. Simplify the following:

$$\frac{(5^2)^3 \times 4^3 \times 3^2}{25^2 \times (2^2)^2 \times 9}$$

29. Find the simple interest on ₹1500 at 6% per annum for 3 years. Also find the amount.
30. At present, Rakesh is 4 times as old as his son. Sum of their ages will be 40 less than a century. Find their present ages.
