

INDIAN SCHOOL SALALAH
SECOND TERM EXAMINATION, 2017-18.

MAX. MARKS: 80

CLASS: VII

MATHEMATICS

TIME: $2\frac{1}{2}$ HOURS

GENERAL INSTRUCTIONS:

- i) All questions are compulsory.
 - ii) 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.
 - iii) Internal choices have been provided in Section C and Section D. You have to attempt only one of the choices in such questions.
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SECTION A (1 MARK)

1. Arrange the following decimals in ascending order.

36.11 , 19.9 , 27.86 , 36.9

2. Find the ratio of 40 cm to 100 cm.

3. What is the measure of exterior angle of a triangle, if two of its interior opposite angles are 40° and 55° ?

4. Find the value of a) $(-1)^{53}$ b) $(3^0 + 4^0)^0$.

5. Identify numerical coefficients of the terms given below.

a) $3pq$ b) $-ab$

6. Name the included angle between the sides PQ and QR of a ΔPQR ?

SECTION B (2 MARKS)

7. The speed of a train is increased from 120 km/h to 180 km/h. Find the increase percentage in the speed of the train.

8. Check whether 7cm, 9cm and 15 cm can be the sides of a triangle. Give reason.

9. Express 9000 as the product of powers of prime numbers.

10. Identify Binomials from the expressions given below ?

- i) $114pqr$ ii) $x^2 + pq$ iii) $a^2 + b^2 + 2ab$ iv) $\frac{2}{3}mn + 1$

11. Fill in the blanks

i) $75.58 \times \underline{\hspace{2cm}} = 755.8$

ii) $234.5 \div 100 = \underline{\hspace{2cm}}$

12. If $\Delta ABC \cong \Delta PQR$, write the part of ΔPQR , that correspond to

- i) BC
ii) $\angle A$

SECTION C (3 MARKS)

13. a) Arun bought 12 sweet packets from a shop. Find the total weight of all packets, if each packet weighs 2.125 kg.

b) $5 \text{ km } 25 \text{ m} = \underline{\hspace{2cm}} \text{ km}$.

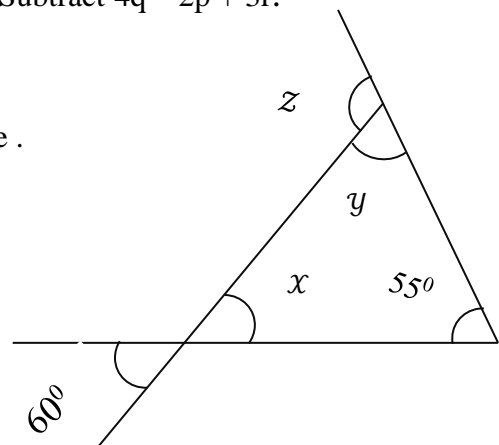
14. What must be added to $5x^2 - 12x + 30$ to get $8x^2 - 15x - 25$?

OR

From the sum of $3q - 2p + 3r$ and $5q + 3p - 6r$, Subtract $4q - 2p + 3r$.

15. Find the value of x , y and z in the following figure .

Give reason.



16. a) Express the following numbers in standard form.

- i) 25600000 ii) 4908.5

b) Find the number from the given expanded form.

$$4 \times 10^4 + 7 \times 10^3 + 9 \times 10^2 + 1 \times 10^0$$

17. Answer the following.

- a) What is the measure of each angle in an equilateral triangle ?
- b) Name the triangle which has two of its sides as its altitudes.
- c) How many obtuse angles can a triangle have?

18. Simplify the expression $3p^2 - 2p - 15 + 8p$ and find the value, when $p = 2$.

19. Construct a ΔXYZ in which $XY = 4.5$ cm, $XZ = 4$ cm and $YZ = 5.5$ cm. Also find the measure of $\angle X$.

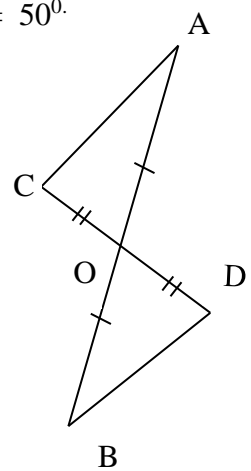
OR

Construct a triangle PQR in which $QR = 6.5$ cm, $\angle Q = 60^\circ$ and $\angle R = 50^\circ$.

20. In the given figure AB and CD bisect each other at O.

- i) State the three pairs of equal parts in ΔCOA and ΔDOB .
- ii) Which of the following statements are true? Give reason.

- a) $\Delta AOC \cong \Delta DOB$
- b) $\Delta AOC \cong \Delta BOD$



21. Soman has 20 marbles more than the number of marbles Raju has. If both of them together have 112 marbles, How many marbles does Soman has?

OR

Ravi's father's age is 5 years more than three times Ravi's age. Find Ravi's age, if his father is 44 years old.

22. a) Convert the following into per cents.

- i) 0.38
- ii) $\frac{3}{5}$

b) Find 30 % of 150 Kg.

OR

800 kg of mortar consists of 55% sand, 33% cement and the rest lime.

- a) What is the percentage of lime in mortar ?
- b) Also find the weight of cement in mortar.

SECTION D (4 MARKS)

23. Solve the following equations.

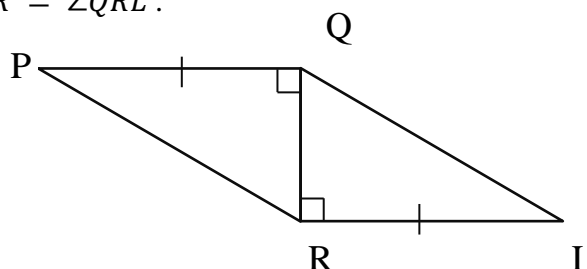
a) $12p - 5 = 31$

b) $4(m + 7) = 20$

24. In the given figure, $PQ = RL$ and $\angle PQR = \angle QRL$.

a) Explain, why $\Delta PQR \cong \Delta LRQ$?

b) Is $PR = QL$? Give reason?



25. A truck covers a distance of 92.5 km in 2.5 hours. If the truck is travelling at the same speed throughout the journey, What is the distance covered by it in one hour?

OR

Find a) $89.1 \div 2.2$

b) How much less is 34.4 km than 56 km?

26. If the diagonals of a Rhombus measures 10 cm and 24 cm, find its perimeter?

27. Varun bought a study table for Rs 8000. After one month he sold it making a profit of 12%. Find the selling price of the table.

OR

Stamp collecting is one of the world's most popular hobbies. Number of stamps collected by Riya, Anil and kavya are in the ratio 6 : 3 : 1 .

a) Find the per cent of stamps collected by Anil.

b) If kavya has collected 8 stamps , find the total number of stamps collected by three of them.

28. Simplify and express the following in exponential form

$$[(5^2)^3 \times 5^4 \times 25] \div 125$$

OR

Simplify :

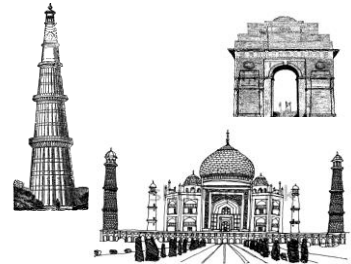
$$\frac{32 \times 5^2 \times a^7}{10^2 \times a^4}$$

29. Construct a $\triangle DEF$ in which $DE = 8$ cm, $DF = 6$ cm and $\angle D = 90^\circ$.

What is the length of the longest side?

SAVE AND CONSERVE MONUMENTS

30. a) Students of class VII deposited a sum of Rs 50,000 in a bank at the rate of 10 % per annum. Find the interest and the amount paid by the bank after 2 years ?



b) With that amount they decided to visit famous historical monuments in India and their purpose of visit was to save and conserve historical monuments. They felt very happy on visiting these places. Do you think that the conservation of monuments is important? Give any one reason to support your answer.
