



INDIAN SCHOOL SOHAR
TERM - II EXAMINATION (2018 – 2019)
MATHEMATICS

STD VII
 10/03/2019

Max. Marks: 80
 Duration: 3 Hours

General Instructions:

All questions are compulsory. Check whether the question paper contains 4 printed pages. The question paper consists of 30 questions divided into four sections A, B, C & D. Section A comprises 6 questions of 1 mark each, Section B comprises 6 questions of 2 marks each, Section C comprises 10 questions of 3 marks each & Section D comprises 8 questions of 4 marks each. Do the calculations in the working column. Give necessary formulae and steps wherever required.

SECTION A

1. Find the quotient: $45 \div (-9)$.
2. Find the value of x : $2x - 3 = 7$.
3. Find the circumference of a circle whose diameter is 28cm.

OR

 Find the area of a square whose side is 7cm.
4. Find 20% of 2500km.

OR

 If 40% of a number is 8, what is the number?
5. Express the number in the standard form: 820000000000.
6. If $x = 3$, then find the value of the expression: $x^3 - 3$

SECTION B

7. Using the laws of exponents, simplify and write in exponential form: $(3^3)^4 \div 3^7$
8. Evaluate: $5 \div$
9. Find the area of the square if its perimeter is 64 cm.

OR

 Find the area of the rectangle if its perimeter is 64 cm and its length is 17 cm.
10. The sum of 3 times of a number and 11 is 32. Find the number.

11. Find the product using suitable property: $625 \times (-35) + 625 \times (-65)$
12. If $\triangle ABC$ is a right angled at C. If AC= 5 cm and BC= 12 cm, find the length of AB.

OR

The lengths of two sides of a triangle are 6 cm and 8 cm. Between which two numbers can length of the third side fall?

SECTION C

13. Sarika obtained 432 marks out of 600 and Manohar obtained 525 marks out of 750 in the annual examination. Whose performance is better? What quality do you think Sarika have?
14. A ladder of 15m long reaches a window of a building 12m above the ground. Determine the distance of the foot of the ladder from the building.
15. Construct a $\triangle ABC$, given AB=5cm, BC= 6cm and AC=7 cm.
16. There are 48 students in a class. The number of boys is three times the number of girls in the class. Find the number of boys and girls in the class.
17. Subtract the sum of $(8m - 7n + 6p^2)$ and $(-3m - 4n - p^2)$ from the sum of $(2m + 4n - 3p^2)$ and $(-m - n - p^2)$.

OR

What should be subtracted from $2a + 8b + 10$ to get $-3a + 7b + 16$

18. Using the laws of exponents, simplify and write the answer in exponential form: $\frac{2^5 \times 3^4 \times 4}{3 \times 32}$

19. The sum of two rational numbers is $\frac{13}{22}$. If one of the rational number is $\frac{3}{11}$, find the other.

OR

- The product of two rational numbers is $\frac{-25}{13}$. If one of the rational number is $\frac{-3}{7}$, find the other.
20. A sum of Rs.5000 is lent for 2 years at the rate of 5% per annum. Find the interest and the amount.

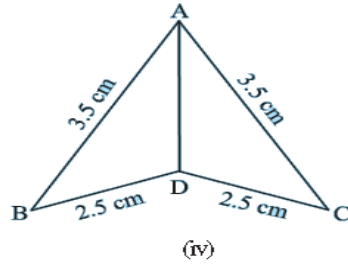
OR

Ramesh bought a second car for Rs. 50000. He sold this car for Rs. 70000. Find his net profit and profit percentage.

21. Solve the equation: $16(3x - 5) - 10(4x - 8) = 40$
22. In the given figure, AB=AC and BD=CD.

(I) State the three equal parts in $\triangle ABD$ and $\triangle ACD$

(II) Is $\triangle ABD \cong \triangle ACD$? Give reasons.



SECTION D

23. Simplify using the laws of exponents $\frac{12^4 \times 9^3 \times 4^2}{6^3 \times 8^2 \times 27^2}$
OR

Express as a product of prime factors in exponential form: 729×64

24. Simplify: $\left(\frac{7}{15} \div \frac{2}{3}\right) + \left(\frac{-8}{35} \div \frac{2}{7}\right) - \left(\frac{3}{5} \times \frac{1}{2}\right)$

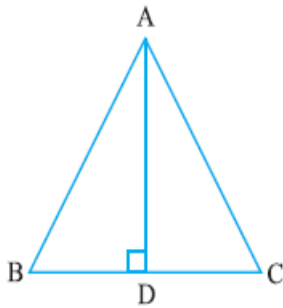
25. A rectangular park is 45 m long and 30 m wide. A path 2.5 m wide is constructed outside the park.
Find the area of the path.

OR

A path of 1 m wide is built along the border inside a square garden of side 30 m. Find the area of the path.

26. Find the perimeter of the rectangle whose length is 40cm and a diagonal is 41 cm.

27. If $\triangle ABC$ is an isosceles triangle such that $AB=AC$, then altitude AD from A on BC bisects BC as shown in the following figure:



(a) Prove that $\triangle ABD \cong \triangle ACD$

(b) Is $BD=DC$? Why?

28. In a class test containing 15 questions, 5 marks are given for every correct answer and (-2) marks are given for every incorrect answer and 0 mark is given for not attempting the questions.

(a) Rohan attempted all questions but only 9 of his answers are correct. What is his total score?

(b) Sohan attempted only 13 questions but only 8 of his answers are correct. What is his total score?

29. Solve the following equations:

(a) $\frac{20p}{3} = 40$

(b) $4(m + 3) = 18$

30. Simplify the expression: $x + 7 + 4(x - 5)$ and find the value if $x = 3$.

OR

Find the value of the expression: $2a^2b + 2ab^2 + ab$ if $a=2$ and $b= (-2)$.

*******THE END*******