



INDIAN SCHOOL SOHAR
TERM II EXAMINATION 2019-2020
MATHEMATICS

CLASS : VII

MAX. MARKS : 80

DATE : 08 - 03 - 2020

DURATION : 3 HRS

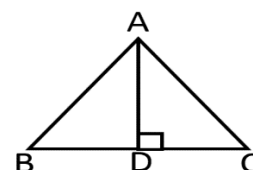
General Instructions:

- (i) All the questions are compulsory.
- (ii) The question paper consists of 40 questions divided into 4 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. 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 1 mark each, two questions of 2 marks each, three questions of 3 marks each, and three 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

Q 1- Q 10 are multiple choice questions. Select the most appropriate answer from the given options.

1. If $\Delta ART \cong \Delta PEN$, then $RT = \underline{\hspace{2cm}}$ and $\angle A = \underline{\hspace{2cm}}$.
(A) EN, $\angle P$ (B) $\angle P$, RT (C) PE, $\angle A$ (D) AT, $\angle N$
2. The ratio of 500 m to 5 km is:
(A) 10 : 1 (B) 100 : 1 (C) 1 : 10 (D) 1 : 100
3. The value of $(3^0 + 2^0) \times 9^0$ is :
(A) 0 (B) 2 (C) 45 (D) 18
4. The product of a rational number and its reciprocal is always:
(A) 0 (B) infinite (C) 1 (D) -1
5. Which of the following is a binomial?
(A) $3x^2y$ (B) $a + 5$ (C) $7mn + 2mn$ (D) $2x - 3y + 1$
6. The value of $(-2) \times (-4) \times 0 \times 7$ is:
(A) -56 (B) 8 (C) 0 (D) 1
7. A number added to itself gives 36. The number is:
(A) 18 (B) 20 (C) 24 (D) 36
8. In ΔABC , height $AD = 3$ cm. If its area is 9 cm^2 , then its base BC is:
(A) 9 cm (B) 10 cm (C) 2 cm (D) 6 cm



9. A pair of integers whose sum is -7 is:
 (A) -5 and 1 (B) 4 and 3 (C) -6 and -2 (D) -5 and -2
10. '8 more than twice x equals 15' can be represented as:
 (A) $8 + x = 15$ (B) $2x + 8 = 15$ (C) $2x - 8 = 15$ (D) $x - 8 = 15$

(Q 11 – Q 15) Fill in the blanks

11. $(-206) \div \underline{\hspace{2cm}} = 1$

OR

For any integer a , $a \times \underline{\hspace{2cm}} = 0$

12. The value of 9^3 is $\underline{\hspace{2cm}}$.
13. The coefficient of y^2 in the expression $5xy^2 - 2$ is $\underline{\hspace{2cm}}$.
14. The area of parallelogram whose base 8 cm and the corresponding altitude 5 cm is $\underline{\hspace{2cm}}$.
15. If Rohit has $5xy$ toffees and Jeeva has $20yx$ toffees, then Jeeva has $\underline{\hspace{2cm}}$ more toffees.

(Q 16 – Q 20) Answer the following

16. In ΔABC and ΔXYZ , $\angle B = \angle X = 90^\circ$ and $BC = XZ$. What additional information is needed to make $\Delta ABC \cong \Delta YXZ$ by RHS congruence criterion?

OR

If $\overline{XY} = 4.2$ cm and $\overline{XY} \cong \overline{MN}$, what is the length of \overline{MN} ?

17. What is the value of $(-3)^2 \times (-2)^3$?
18. What is the standard form of 3,409,000,000?
19. Express 36% as a fraction in the simplest form.
20. Find the Loss or Profit, if $CP = ₹ 120$ and $SP = ₹ 180$.

SECTION B

21. Mahesh takes a loan of ₹ 50,000 at the rate of interest 12% p.a. Find the simple interest, which he has to pay after two years.

OR

Six bowls cost ₹ 90. What would be the cost of 10 such bowls?

22. Find the product $73 \times (-48) + (-48) \times (-83)$ using suitable property.

23. Find x and y , such that $\frac{-5}{8} = \frac{x}{-32} = \frac{-15}{y}$

OR

The product of two rational numbers is $\frac{-8}{9}$. If one of the numbers is $\frac{-4}{15}$, find the other rational number.

24. Raju's father's age is 5 years more than 3 times Raju's age. Find Raju's age, if his father is 44 years old.
25. Simplify: $p - (p - q) - (q - p)$.
26. Find the area of a square park whose perimeter is 420 m.

SECTION C

27. Construct a triangle ABC such that AB = 5 cm, BC = 6 cm and AC = 7 cm.
28. Simplify the expression $3(a^2 + ab) - ab$ and find its value if $a = 5$ and $b = 2$.
29. Express 216×192 as product of its prime factors in exponential form.

OR

- (a) Simplify and write in exponential form: $[(7^2)^3 \times 7^4] \div 7^7$
- (b) Expand 76,00,300 by expressing powers of 10 in the exponential form.
30. The diameter of a car tyre is 70 cm. Find the distance covered by it in 5 rounds. Also find the number of turns required to cover a distance of 1540 m. (Take $\pi = \frac{22}{7}$)

OR

- A circle of radius 2 cm is cut from a square piece of an aluminium sheet of side 8 cm. What is the area of the left over aluminium sheet? (Take $\pi = 3.14$)
31. The cost price of a bag is ₹ 350. It is sold for ₹ 210. Find the profit or loss percent.

OR

- An article was sold for ₹ 315 with a profit of 5%. What was its cost price?
32. Solve: (a) $7m + \frac{21}{2} = 14$
(b) $2(3t - 28) = 10$
33. (a) Find two rational numbers between $\frac{-1}{2}$ and $\frac{-4}{5}$.
(b) Add: $2\frac{2}{3} + \frac{1}{5}$
34. In a class test containing 15 questions, 4 marks are given for every correct answer and (-2) marks are given for every incorrect answer. Preeti attempts all the questions, but only 11 of her answers are correct. What is her total score?

SECTION D

35. Simplify using Laws of exponents: $\frac{32 \times 3^3 \times 12^2}{6^2 \times 2^3 \times 27}$

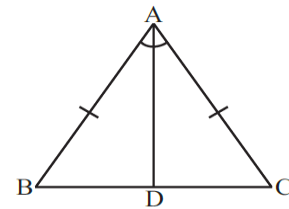
36. A rectangular park is 45 m long and 30 m wide. A 3 m wide path is constructed outside the park.
Find (a) The area of the path.
(b) The cost of tiling the path at the rate of ₹ 80 per m².

OR

Through a rectangular field of length 115 m long and breadth 100 m wide, two roads are constructed which are parallel to the sides and cut each other at right angles through the fields. If the width of each road is 5 m, find

- (a) the area covered by the roads.
(b) the cost of constructing the roads at the rate of ₹ 120 per m².
37. In the figure $AB = AC$ and AD is the bisector of $\angle BAC$.

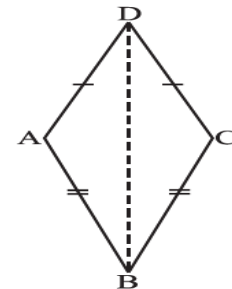
- (a) State three pairs of equal parts in triangles ADB and ADC .
(b) Is $\triangle ADB \cong \triangle ADC$? Give reasons.
(c) Is $\angle B = \angle C$? Give reasons.



OR

In the figure $AD = CD$ and $AB = CB$.

- (a) State three pairs of equal parts in triangles ABD and CBD .
(b) Is $\triangle ABD \cong \triangle CBD$? Give reasons.
(c) Does BD bisect $\angle ABC$? Give reasons.



38. From the sum of $4 + 3x$ and $5 - 4x + 2x^2$, subtract the sum of $3x^2 - 5x$ and $-x^2 - 2x + 5$.
39. Construct $\triangle LMN$, right angled at M where $LM = 5$ cm and $MN = 3$ cm

OR

Construct a triangle PQR , given that $PQ = 3$ cm, $QR = 5.5$ cm and $\angle PQR = 60^\circ$.

40. (a) Convert the following into percentage.

(i) $1\frac{3}{50}$ (ii) 0.73

- (b) Bhoomi saves ₹ 8000 from her salary. If this is 10% of her salary, what is her salary?

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