

HSS

## SECOND TERM SUMMATIVE ASSESMENT - 2024

7 - Std

Time : 2.00 hrs

## MATHEMATICS

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Marks : 60

## PART - A

## I Choose the correct answer.

1. A cricket pitch is about 264 cm wide. It is equal to ..... m.  
 a) 26.4                      b) 2.64                      c) 0.264                      d) 0.0264
2. If the circumference of a circle is  $82\pi$ . Then value of 'r' is .....  
 a) 21 cm                      b) 20cm                      c) 41cm                      d) 82cm
3. The unit digit of  $(32 \times 65)^0$  is .....  
 a) 2                              b) 5                              c) 0                              d) 1
4. The exponential form of 72 is .....  
 a)  $7^2$                               b)  $2^7$                               c)  $2^3 \times 3^3$                       d)  $2^3 \times 3^2$
5. What is the sum of the element of ninth row in the Pascals triangle  
 a) 128                              b) 254                              c) 256                              d) 126

5 X 1 = 5

## II Say true or false.

6.  $45.50 > 45.55$ .
7. Circumference of a circle  $C = 2\pi r$  units.
8.  $3^4 \times 3^7 = 3^{11}$ .
9. Area of a rectangle is  $A = lb$  sq.units.
10. The sum of the interior angles in a triangle is  $180^\circ$ .

5 X 1 = 5

## III Fill up the blanks.

11. The degree of the constant term is .....
12. Area of the circle is ..... sq. units.
13. The quotient rule of exponents  $\frac{a^m}{a^n} = \dots\dots\dots$
14. The value of  $(-4)^2 = \dots\dots\dots$
15. Each angle of an equilateral triangle is of ..... measure.

5 X 1 = 5

## IV Match the following.

- |                                   |   |                  |
|-----------------------------------|---|------------------|
| 16. 100 cm                        | - | $a^{m+n}$        |
| 17. Area of the circular path     | - | 1                |
| 18. Product rule $a^m \times a^n$ | - | 5                |
| 19. $(14 \times 21)^0$            | - | $\pi(R^2 - r^2)$ |
| 20. The degree of $12pq^2r^2$     | - | 1 metre          |

5 X 1 = 5

## PART - B

## V Answer any 10 questions.

21. Find the decimal form of the fraction  $999 + 99 + 9 + \frac{9}{10} + \frac{9}{100}$ .
22. Find the circumference of a circle whose radius is 49cm.

10 X 2 = 20

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23. Arrange the following in ascending order 2.35, 2.53, 5.32, 3.52, 3.25.

24. Find the area of the hula lamp whose diameter is 28cm  $\left(\pi = \frac{22}{7}\right)$ .

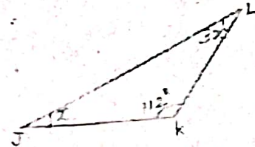
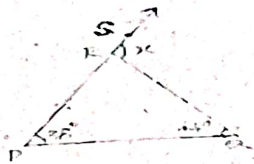
25. Find the value of  $2^2 + 5^2$ .

26. Simplify :  $5^7 \times 5^3$ .

27. Can 5cm, 9cm and 14cm be the sides of a triangle?

28. Express in exponential form  $5 \times 5 \times 7 \times 7 \times 7$ .

29. Find the value of 'x'.



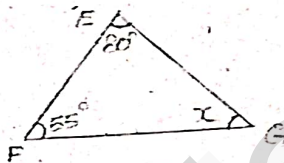
30. In  $\Delta PQR$ , find the exterior angle  $\angle SRQ$ .

31. The circumference of a circle is 1760cm, find the radius.

32. Add  $(9x + y)$  and  $(10x - 9y)$  and find the degree.

33. Can you draw a triangle with  $25^\circ$ ,  $65^\circ$  and  $80^\circ$  as angles.

34. Find the value of 'x'.



35. Find the elements along the sixth row of Pascals triangle.

### PART - C

**VI Answer any 5 questions.**

$$5 \times 3 = 15$$

36. Express 512 in exponential form.

37. If the circumference of the circle is 132m. Then calculate the radius and the diameter.

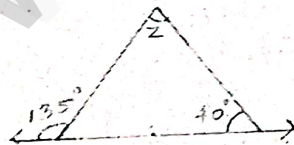
38. Express 729 in exponential form.

39. Simplify :  $\frac{2^8 \times 3^5 \times 5^4}{3^3 \times 5^3 \times 2^4}$ .

40. Add the expression  $4x^2 + 3xy + 9y^2$  and  $2x^2 - 9xy + 6y^2$ .

41. If  $P = -2$ ,  $Q = 1$  and  $r = 3$  find the value of  $3p^2q^2r$ .

42. Find the angle Z.



43. Can row sum of elements in a Pascal's triangle form a pattern.

### PART - D

**VII Answer any one.**

$$1 \times 5 = 5$$

44. Construct a triangle XYZ,  $XY = 6.4$  cm,  $ZY = 7.7$ cm and  $XZ = 5$ cm.

45. Construct a  $\Delta ABC$ ,  $BC = 8$  cm,  $AC = 6$ cm, and  $\angle C = 40^\circ$ .