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SECOND TERM EXAMINATION - 2024
SUMMATIVE ASSESSMENT - MATHEMATICS $\boxed{A}$

Class : 7   **Marks : 60**

Time : 2.00 Hours

PART A

I. Choose the correct answer.   (5×1=5)

1. $3 + \dfrac{4}{100} + \dfrac{9}{1000} = $ _____ .

   a) 30.49   b) 3.049   c) 3.0049   d) 3.00049

2. 37.70 $\boxed{}$ 37.7

   a) =   b) <   c) >   d) ≠

3. If the circumference of a circle is 82π cm, then the value of the radius is _____.

   a) 41 cm   b) 82 cm   c) 21 cm   d) 20 cm

4. A triangle has angle measurements of 29°, 65° and 86°. Then it is _____ triangle.

   a) an acute angled   b) a right-angled   c) an obtuse-angled   d) a scalene

5. The elements along the sixth row of the Pascal's Triangle is _____.

   a) 1,5,10,5,1   b) 1,5,5,1   c) 1,5,5,10,5,5,1   d) 1,5,10,10,5,1

II. Fill in the blanks   (5×1=5)

6. A cricket pitch is about 264cm wide. It is equal to_____m.

7. The simplest form of 0.35 is_____.

8. Area of a circle of radius 'n' units is_____.

9. The expanded form of p^3q^2 is_____.

10. Each angle of an equilateral triangle is of _____measure.

III. Write true or false.   (5×1=5)

11) The decimal number which lies between 4 and 5 is 4.5.

12) The area of the rectangular path is *lb* sq.units.

13) Any integer can be the degree of the expression .

14) $2^3 < 3^2$.
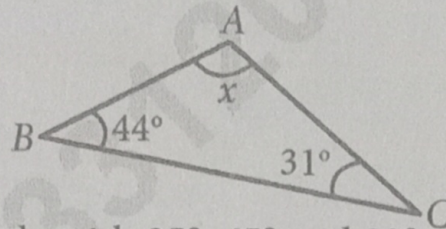
15) The exterior angles of a triangle add up to 180°.

IV. Match the following.   (5×1=5)

16) $a^m \times a^n$ - $a^m \times b^m$.

17) $a^m \div a^n$ - $a^m \times b^{-m}$

18) $(a^m)^n$ - a^{m+n}

19) $(a \times b)^m$ - a^{m-n};   m>n

20) $(a/b)^m$ - $a^{m \times n}$

PART B

V. Answer any TEN questions.   (10×2=20)

21) Expand the following decimal number 658.37

22) Write the fraction $3\dfrac{1}{5}$ as decimal.

23) Megala and Mala bought two watermelons weighing 13.523kg and 13.52kg. Which is the heavier one?

24) Represent the following decimal numbers on the number line.

    i) 1.7   ii) 2.1

25) What is the circumference of the circular disc of radius 14 cm? $(\pi = \dfrac{22}{7})$

26) Find the area of the circular dining table with a diameter of 105 cm.

27) Simplify $4^3 \times 2^3 \times 5^3$ by using the law of exponents.
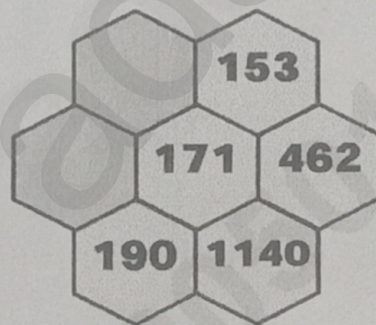
28) Express 512 using the exponential form.

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29) Find the unit digit of 29^{21}.

30) Subtract $x^3 - x^2 + x + 3$ from $3x^3 - 2x^2 - 7x + 6$ and find the degree.

31) Find the measure of the missing angle in the given triangle ABC

32) Can you draw a triangle with 25°, 65° and 80° as angles.

33) Define congruent triangles(SSS criterion)

34) Observe the table given below. Find the relationship between x and y. What will be the value of y, when x = 8.

x	-2	-1	0	1	2	8
y	-4	-2	0	2	4	?

35) The following hexagonal shapes are taken from Pascal's Triangle. Fill in the missing numbers.

PART C

VI. Answer any FIVE questions.   (5×3=15)

36) Express the following decimals as fractions in the lowest form.

   i) 2.34   ii) 0.18   iii) 3.56

37) Arrange the following in ascending order and descending order

   2.35, 2.53, 5.32, 3.52, 3.25

38) A wire with a length of 1320 cm is formed into circular frames of radius 7 cm each. How many frames can be made?
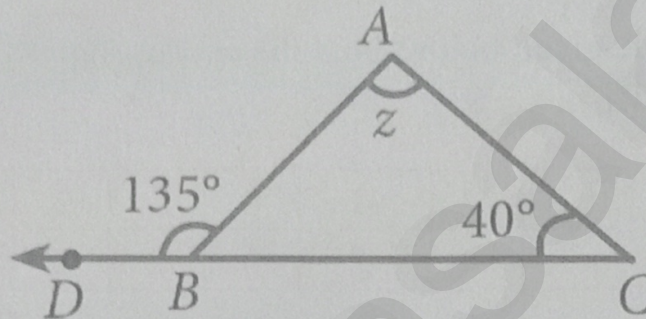
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39) A floor is 10 m long and 8 m wide. A carpet with a size of 7m long and 5m wide is laid on the floor. Find the area of the floor that is not covered by the carpet.

40) Simplify using the quotient rule of exponents

$$\frac{(2^8 \times 3^5 \times 5^4)}{(3^3 \times 5^3 \times 2^4)}$$

41) Find the value of W, given that $x = 3, y = 4, z = -2$ and $W = x^2 - y^2 + z^2 - xyz$.

42) In the triangle ABC shown in the figure, find the angle z.

43) Write the first five numbers in the third slanting row of the Pascal's Triangle and find their squares.

PART D

VII. Answer the following.　　　　　　　　　　　　　　　　**(1×5=5)**

44) Construct a triangle ABC, given that BC = 8 cm, AC = 6 cm and ∠C = 40°.

(or)

45) Draw a triangle LMN, given that LM = 5.5 cm, ∠M = 70° and ∠L = 50°.

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