

# COMMON SECOND TERM SUMMATIVE EXAMINATION - 2022

Reg.No.

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Marks: 60

Time: 2.30 hrs.

## Standard - VII MATHS

### SECTION - A

5×1=5

I. Choose the correct answer:

1. 1 m.m = \_\_\_\_\_  
 a) 10cm                      b)  $\frac{1}{10}$  cm                      c) 100cm                      d)  $\frac{1}{100}$  cm
2. The place value of 3 in 85.073 is \_\_\_\_\_  
 a) tenths                      b) hundredths                      c) thousands                      d) thousandths
3. The exponential form of 72 is  
 a)  $7^2$                       b)  $2^7$                       c)  $2^2 \times 3^3$                       d)  $2^3 \times 3^2$
4. The degree of  $6x^7 - 7x^3 + 4$  is  
 a) 7                      b) 3                      c) 6                      d) 4
5. In the formula  $c = 2\pi r$ , 'r' refers to  
 a) circumference                      b) area                      c) rotation                      d) radius

II. Fill in the blanks:

5×1=5

6. The simplest form of 0.35 is \_\_\_\_\_.
7. The formula used to find the area of the circle \_\_\_\_\_.
8. The value of  $(14 \times 21)^0$  is \_\_\_\_\_.
9. The power rule is  $(a^m)^n =$  \_\_\_\_\_.
10. Diameter of a circle is 24cm. Then its radius is \_\_\_\_\_.

III. Match the following:

5×1=5

11.  $a^m \times a^n$  =  $a^m \times b^m$
12.  $a^m \div a^n$  =  $a^m / b^m$
13.  $(a^m)^n$  =  $a^{m+n}$
14.  $(a \times b)^m$  =  $a^{m-n}, m > n$
15.  $\left(\frac{a}{b}\right)^m$  =  $a^{m \times n}$

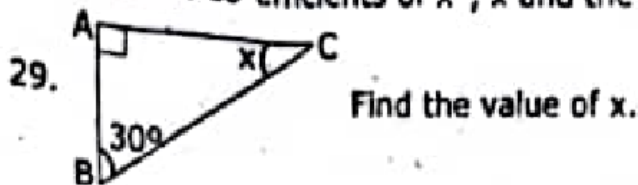
### SECTION - B

IV. Answer any 10 of the following questions:

10×2=20

16. Expand the decimal number 237.6
17. Simplify :  $3^2 \times 3^3 \times 3^4$
18. Fill with >, < or = : i) 3.53  3.35    ii) 5.05    5.50
19. Can  $30^\circ$ ,  $60^\circ$  and  $90^\circ$  be the angles of triangle?
20. Find the values of the following: i)  $2^6$     ii)  $5^4$

21. Represent 2.1 on the number line.
22. If  $a = 3$  and  $b = 2$  then find  $a^2 + b^2$ .
23. Simplify :  $\frac{4^5 \times a^8 \times b^3}{4^3 \times a^5 \times b^2}$
24. Identify the like terms :  $2x^2y, 2xy^2, 3xy^2, 14x^2y, 7xy$
25. Find the circumference of the circle if  $r = 49\text{cm}$ .
26. Write the next three no of the series 3, 6, 10 .....
27. Find the value of  $2^3 + 3^2 = \underline{\hspace{2cm}}$ .
28. Find the co-efficients of  $x^2, x$  and the degree of the polynomial  $3x^2 + 2x + 1$



## SECTION - C

V. Answer any 5:

 $5 \times 3 = 15$ 

30. If the three angles of a triangle are in the ratio 3 : 5 : 4 then find the angles.
31. Subtract  $x^3 - x^2 + x + 3$  from  $3x^3 - 2x^2 - 7x + 6$  and find the degree.
32. Find the area of a hula loop whose diameter is 28cm (use  $\pi = \frac{22}{7}$ )
33. The circumference of a circular park is 352cm. Find the area of the Park.
34. In the given figure find the values of  $x$  and  $y$ .



35. In a right angled triangle ABC  $\angle B$  is right angle  $\angle A$  is  $x+1$   $\angle C$  is  $2x+5$  find  $\angle A$  and  $\angle C$ .
36. Write the following decimal numbers in the place value table.  
i) 428.001      ii) 19.54

## SECTION - D

VI. Answer any two of the following:

 $2 \times 5 = 10$ 

37. Construct an equilateral triangle  $xyz$  with the side of 7.5cm.
38. Construct a triangle ABC.  $AB = 7\text{cm}$ ,  $AC = 6.5\text{cm}$  and  $\angle A = 120^\circ$
39. Construct a triangle PQR.  $\angle Q = 90^\circ$ ,  $\angle R = 42^\circ$  and  $QR = 5.5\text{cm}$ .

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