

B COMMON SECOND SUMMATIVE EXAMINATION - 2023**Standard - VII****Time: 2.00 hrs****MATHS****Marks:60****5x1=5****I Choose the best answer:**

- Between which two whole numbers 1.7 lie?
a) 2 and 3 b) 3 and 4 c) 1 and 2 d) 1 and 7
- The formula to find the width of the circular path is
a) (L-l) units b) (B-b) units c) (R-r) units d) (r-R) units
- The exponential form of 72 is
a) 7^2 b) 2^7 c) $2^2 \times 3^3$ d) $2^3 \times 3^2$
- If two plane figures are congruent then they have
a) same size b) same shape c) same angle d) same shape and same size
- 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

5x1=5**II Fill in the blanks**

- $3 + \frac{4}{100} + \frac{9}{1000} =$ _____
- The area of the rectangular pathway is _____
- Degree of the constant term is _____
- If an exterior angle of a triangle is 115° and one of the interior opposite angles is 35° then the other two angles of the triangle are _____, _____
- What is the sum of the elements of ninth row in the Pascal's Triangle _____

5x1=5**III Match the following**

- | | |
|--|---------------|
| 11. 30 kg 43 g | - 121 |
| 12. πr units | - 180° |
| 13. The unit digit of $(32 \times 65)^\circ$ | - 30.043 |
| 14. Sum of all angles in a triangle | - $2\pi r$ |
| 15. The value of 11^2 | - 1 |

5x1=5**IV True or False:**

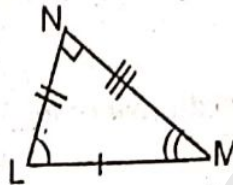
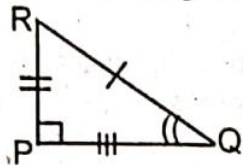
- The simplest form of 0.35 is $\frac{7}{20}$
- The formula to find the area of the Circular Path is πr^2
- $2^\circ = (1000)^\circ$
- An exterior angle of a triangle is equal to the sum of its interior opposite angles.
- $a^m \times b^m = (a \times b)^m$

10x2=20**IV Answer any 10 of the following:**

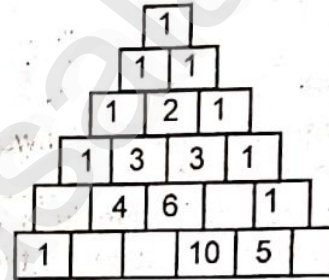
- Express the following in metres using decimals 43cm.
- Convert the following fraction into decimal number $3\frac{1}{2}$

(2)

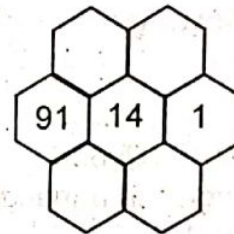
23. Find the smaller decimal number in the following 7.01, 7.3.
24. If the circumference of the circle is 132m. Then calculate the radius and diameter.
25. Find the area of the dining table whose diameter is 105cm.
26. Find the area of a circular pathway whose outer radius is 32cm and inner radius.
27. Express the following number using exponential form 729.
28. Find the unit digit of expanded form of 11^{10} .
29. Add and find the degree of the following expression $(9x + 3y)$ and $(10x - 9y)$
30. If two angles of a triangle having measures 65° and 35° , find the measure of the third angle
31. If the given two triangles are congruent, then identify all the corresponding sides and also write the congruent angles.



32. If two angles of a triangle are 46° each, how can you classify the triangle?
33. Complete the following Pascal's Triangle by observing the number pattern.



34. The following hexagonal shape is taken from Pascal's Triangle. Fill in the missing numbers.



VI Answer any 5 of the following:

5x3=15

35. Represent the following decimal number on the number line 2.1
36. Express the following in Kilometers using decimals i) 256 m ii) 4567m
37. The floor of the circular swimming pool whose radius is 7m has to be cemented at the rate of Rs.18 per m^2 . Find the total cost of cementing the floor.
38. There is a circular lawn of radius 28m. A path of 7m width is laid around the lawn. What will be the area of the path?
39. Simplify using quotient rule of exponents.

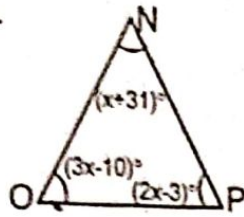
$$\frac{2^8 \times 3^5 \times 5^4}{3^3 \times 5^3 \times 2^4}$$

40. If $x = 5x^2 + 7x + 8$ and $y = 4x^2 - 7x + 3$, then find the degree of $x + y$

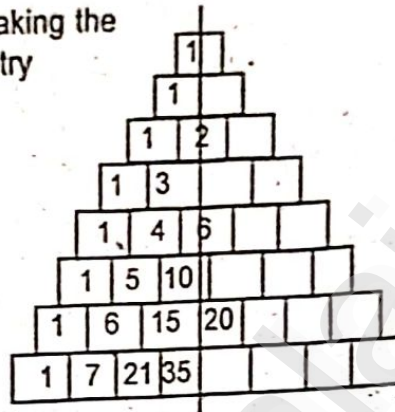
(3)

VII Maths

41. Find the value of x.



42. Complete the Pascal's Triangle by taking the numbers 1, 2, 6, 20 as line of symmetry



1x5=5

VII Answer any one of the following:

43 Construct a triangle xyz with the given conditions.
xy=6.4cm, zy=7.7cm and xz=5cm

(or)

Draw a triangle ABC given that AB=6cm, AC=5cm and $\angle A=60^\circ$.

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