SUMMATIVE ASSESSMENT - SECOND TERM

MATHEMATICS

Max. Marks: 60

Std - VII

Time: 2 Hrs

Name of the School:	**Name of the Student:**
_____	_____
Place:	**Roll No.:**
_____	_____

I. Choose the correct answer: **5 x 1 = 5**

1. The place value of 7 in 93.721 is _____
    a) Tenths   b) Thousandths   c) Hundredths

2. The longest chord of the circle is the _____
    a) radius   b) 2 arcs   c) diameter

3. The area of circle is $121\ \pi cm^2$. Then the radius of the circle is _____
    a) $1.21\ \pi cm$ b) $11\ \pi cm$ c) 11 cm

4. How many zeros are there in 100^{47}? _____
    a) 94   b) 47   c) 4700

5. $8^{20} + 8^{20} + 8^{20}$ is equal to _____
    a) 8^{20} b) 8^{60} c) 8^{80}

II. Fill in the blanks: **5 x 1 = 5**

6. In an equilateral triangles all angles are _____.

7. Two circles are congruent if the _____ are equal.

8. $7\ m =$ _____ km.

9. The value of $(6^{61} \times 2^{61} \times 5^{61})^{0} =$ _____

10. The perimeter of a semicircular region with radius 1 cm is _____

III. State True or False: **5 x 1 = 5**

11. The highest degree term of an algebraic expression is called the leading term. _____

12. In Pascal's triangle the total number of elements in Row 4 and Row 5 is 10. _____

13. The angles of an Isosceles right triangle are 90°, 35°, 35°. _____

14. $(1 + 2 + 3 + 4)^{0}$ have the same value as $(1 \times 2 \times 3 \times 4)^{0}$ _____
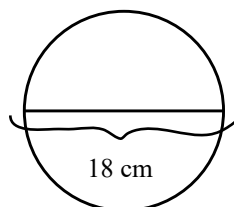
15. An acute angled triangle is equiangular. _____

IV. Match the following: **5 x 1 = 5**

16. $11^{8} \div 11^{2}$ -   16

17. $(6 \times 2 \times 5)^{61}$ -   64

18. $2^{2^{2}}$ - 60^{61}

19. $(15^{10} \times 16^{24} \times 17^{35})^{0}$ - 11^{5}

20. $(-2)^{3} \times (-2)^{3}$ -   1
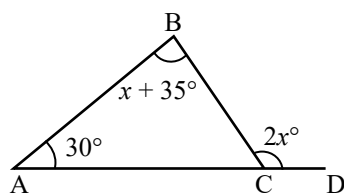
V. Do as directed: (Any 10) 　　　　　　　　　　　　　　　　　　　　　　　　**10 x 2 = 20**

21. Express the following in metres.:　a) 75 cm　　b) 500 cm

22. Expand the following in metres using decimals:　a) 30 m 2 cm　　b) 4 m 60 cm

23. Express the following fractions as decimal numbers:　a) $10\dfrac{3}{50}$　　b) $\dfrac{3}{50}$

24. If the diameter of a bicycle wheel is 42 cm, then find the distance covered in one roation of the wheel.

25. Find the area of the circle. (Take $\pi = \dfrac{22}{7}$)

26. The ratio of radii of two circles is 3:7. Find the ratio of areas.

27. Express the following number in exponential form with the given base: 343 with base 7

28. Simplify:　a) $\dfrac{103^{45}}{103}$　　b) $\dfrac{5^{6}}{5^{0}}$

29. Find the unit digit of the numeric expression:　$1234^{5678} + 4321^{8765}$

30. Subtract the expression $a^3 - 7a^2 + 2a + 5$ from the expression $4a^3 - 11a^2 - 3a + 9$ and find the degree of the resulting expression.

31. Calculate x in the given figure.

32. What is the sum of the numbers in Row 8 of Pascal's triangle.

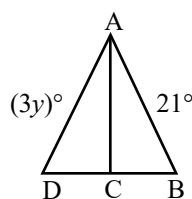**VI. Do as directed: (Any 3)** 　　　　　　　　　　　　　　　　　　　　　　　**3 x 5 = 15**

33. If $p = 3$ and $q = 5$, find the value of the following:　a) $(q - p)^p$　　b) $(p - q)^q + (q - p)^q$

34. A wire bent in the form of a square encloses an area 225 cm². If the same wire is bent in the form of a circle, find the area enclosed.

35. Expand the following numbers in the place value grid and write the place of the underlined digit.

　a) 9̲67.45　　　　　　　b) 7345.0̲86　　　　　　　c) 46̲5.187

36. Simplify:　a) $35^{14} \times 35^{140}$　　b) $67^d \times 3^d$　　c) $\left[(-89)^3\right]^4$

VII. Geometry: (Any 1) 　　　　　　　　　　　　　　　　　　　　　　　　**1 x 5 = 5**

37. a) In the given figure, C is the mid point of DB. Prove that $\triangle$ BAC $\cong$ $\triangle$ DAC and also find y.

<center>(Or)</center>

　b) Given that BE $\perp$ AC, DF $\perp$ AC, BE = DF and AF = CE. Prove that AB = CD.