# COMMON SECOND TERM SUMMATIVE EXAMINATION - 2019

## STANDARD - VII

Reg. No. | | | | | | |

## MATHS

Time : 2.00 hours

Total Marks : 60

**I. Choose the best answer :** **10×1=10**

1) Circumference of the circle
   a) $2\pi^{r}$ units b) $\pi^{r2}+2r$ c) $\pi^{r2}$ d) $\pi^{r3}$

2) $\pi$ = .....
   a) circumference b) $\frac{\text{Circumference}}{\text{radius}}$ c) $\frac{\text{Circumference}}{\text{Diameter}}$ d) $\frac{\text{Area}}{\text{Radius}}$

3) The value of $1476^0$ = .....
   a) 0 b) 1476 c) $1476^2$ d) 1

4) The degree of $a^3b^2c^4d^2$ = .....
   a) 11 b) 3 c) 2 d) 4

5) 1 Centemeter = .....
   a) 10 meter b) 1 meter c) 0.1 meter d) 0.01 meter

6) 1.7 lies between ..... and .....
   a) 2,3 b) 1,7 c) 1,2 d) 3,4

7) The angles of a triangle in the ratio 2:3:4 Then the angles are
   a) $20^0, 30^0, 40^0$ b) $40^0, 60^0, 80^0$ c) $80^0, 20^0, 80^0$ d) $10^0, 15^0, 20^0$

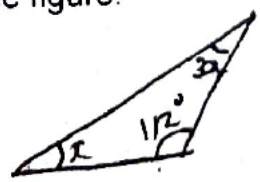
8) The angles on a straight line is .....
   a) $0^0$ b) $180^0$ c) $90^0$ d) $1^0$

9) The triangle, which can help to observe various types of number patterns.
   i) Pascal's Triangle ii) Equilateral triangle
   iii) right angled triangle iv) Acute angled triangle

10) $(a^m)^n$ = .....
   a) $a^{m+n}$ b) $a^{m-n}$ c) $a^{mn}$ d) 1

**II. Answer any eight of the following :** **8×2=16**

11) A capsule contains 0.85mg of medicine. Express as fraction.
12) Write 2/5 as decimal
13) Find the area of the dining table whose diameter is 105 cm.
14) What is the circumference of the circle of radius 49cm?
15) Which is greater $3^4$ or $4^3$?
16) Simplify and then find the degree of the expression.
   $(4m^2+3n) - (3m+9n^2)-(6m^2+3n^2)$
17) If two angles of a triangle having measures $65^0$ and $85^0$, find the measure of the third angle.
18) Write any two conditions for triangles to be congruent.
19) Find the 'x' value in the figure.



20) $25^6 \times 5^6$ simplify using power rule if exponents.

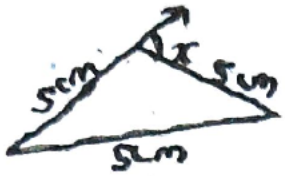
21) In a land, a cow tethered by a rope of length 7m. Find the maximum area that the cow can graze.

22. Write any two decimal numbers which are less than 2 and greater than I.

**III. Answer any 8 of the following :** **8×3=24**

23) Can row sum of elements in a Pascal's Triangle form a pattern?

24) Find the value of 'x'




25) If the three angles of a triangle are in the ratio 2:3:4, then find them.

26) The two adjacent sides of a rectangle are $2x^2-5xy+3z^2$ and $4xy-x^2-x^2$. Find the perimeter and the degree of the expression.

27) 25x32x625x64 Simplify by using the law of exponents.

28) There are 26 boys and 24 girls in a class. Express the fractions of boys and girls as decimal numbers.

29) The radius of a tractor wheel is 77cm. Calculate the distance covered by it in 35 rotations.

30) A floor is 10m long and 8m wide. A carpet of size 7m long and 5m wide is laid in the floor. Find the area of the floor that is not covered by the carpet.

31) There is a circular lawn of radius 28m. A path of 7m width islaid around the town. What will be the area of the path?

32) Express the following in meters using decimals.
i) 7cm ii) 43 cm iii) 5m 5cm

33) One of the angles of a isoscles triangle is $76^0$. Find the other two angles those are not equal to $76^0$.

34) If $3^{x+2} = 3^x+216$, then find the value of 'x'

**IV. Answer any two of the following :** **2×5=10**

35) Construct an equilateral triangle of side 7.5 cm

36) Construct a triangle LMN given than LM 5.5 cm, $\angle m = 70^\circ$, $\angle L = 50^\circ$

37) Draw a triangle ABC given that BC=8cm, AC=6cm and $\angle C = 40^\circ$

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