VNR7M

Virudhunagar District

Summative Assessment - December 2024

Standard 7

MATHS

Time: 2.00 Hrs. Marks: 60

I. Choose the best answer: **5×1=5**

1) $\frac{3}{5}$ = _____

a) 0.06 b) 0.006 c) 6 d) 0.6

2) The ratio of the area of a circle to the area of its semicircle is

a) 2:1 b) 1:2 c) 4:1 d) 1:4

3) How many zeros are there in 100^{10}?

a) 2 b) 3 c) 10 d) 20

4) One of the angles of a triangle is 65°. If the difference of the other two angles is 45°, then the two angles are

a) 85°, 40° b) 70°, 25° c) 80°, 35° d) 80°, 135°

5) What is the sum of the elements of nineth row in the Pascal's Triangle?

a) 128 b) 254 c) 256 d) 126

II. Fill in the blanks: **5×1=5**

6) The simplest form of 0.35 is _____.

7) 0.3$\underline{7}$ the place value of 7 is _____.

8) Perimeter of the circle is _____.

9) Area of the circle is _____.

10) Degree of the constant term is _____.

III. True or False: **5×1=5**

11) 7 cm = 70m

12) The degree of the expression $-4x^2yz$ is -4.

13) $3^4 \times 3^7 = 3^{11}$

14) The sum of three angles in a triangle is 360°.

15) $2^0 = (1000)^0$

IV. Answer any seven questions: **7×2=14**

16) Write the following fractions as decimals: (i) $\frac{9}{1000}$ (ii) $\frac{1}{50}$

17) Write the decimal number 25.178 in the place value table.

18) Find the circumference of d = 28mm. (Take $\pi = \frac{22}{7}$)

19) Find the area of the circle of radius 21 cm. (Use $\pi = 3.14$)

20) Express 729 by exponential form.

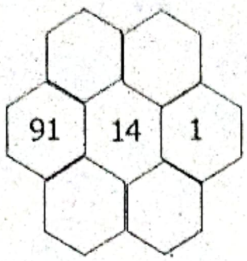
21) Simplify using quotient rule to exponents: $\frac{10^8}{10^6}$

22) If two angles of a triangle having measures 65° and 35°, find the measure of the third angle.

23) Find the degree of the following expressions: (i) x^3-1 (ii) $3x^2+2x+1$

24) State whether the two triangles are congruent or not. Justify your answer.

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



V. Answer any seven questions: **7×3=21**

26) Express the following as fractions (i) A capsule contains 0.85 mg of medicine. (ii) A juice container has 4.5 litres of mango juice.

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

28) Kannan divides a circular disc of radius 14 cm into four equal parts. What is the perimeter of a quadrant shaped disc? (Use $\pi = \frac{22}{7}$)

29) The floor of the circular swimming pool whose radius is 7m has to be cemented at the rate of ₹ 18 per m^2. Find the total cost of cementing the floor.

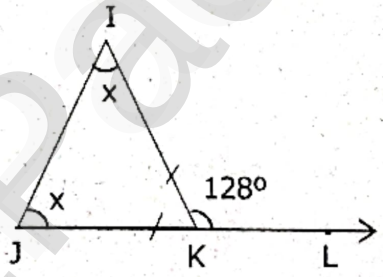
30) A floor is 10m long and 8m wide. A carpet of size 7m long and 5m wide is laid on the floor. Find the area of the floor that is not covered by the carpet.

31) Simplify and express each of the following in exponential form:

(i) $2^0 \times 3^0 \times 4^0$ (ii) $\frac{4^5 \times a^8 \times b^3}{4^3 \times a^5 \times b^2}$

32) Add the expressions $4x^2+3xy+9y^2$ and $2x^2-9xy+6y^2$ and find the degree.

33) In the given isoceles triangle IJK, if $\angle IKL = 128^o$, find the value of x.



34) If the three angles of a triangle are in the ratio 3:5:4, then find them.

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

VI. Answer any two questions: **2×5=10**

36) Draw a triangle XYZ given that XY = 6 cm, YZ = 5.5 cm and ZX = 5 cm.

37) Draw a triangle ABC given that AB = 6 cm, AC = 5.5 cm and $\angle A = 60^o$.

38) Draw a triangle PQR given that $\angle P = 60^o$, $\angle R = 35^o$ and PR = 7.8 cm.
