



Standard 7

MATHS

Time: 2.00 Hrs.

Marks: 60

PART - A

I. Choose the correct answer:

5×1=5

- 1) The decimal representation of 30 kg and 43 g is _____ kg.
 a) 30.43 b) 30.430 c) 30.043 d) 30.0043
- 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) The degree of $6x^7 - 7x^3 + 4$ is _____.
 a) 7 b) 3 c) 6 d) 4
- 4) Which of the following methods are used to check the congruence of plane figures?
 a) translation method b) superposition method
 c) substitution method d) transposition method
- 5) What is the sum of the elements of ninth row in the Pascal's triangle?
 a) 128 b) 254 c) 256 d) 126

II. Fill in the blanks:

5×1=5

- 6) $\frac{3}{5} = \underline{\hspace{2cm}}$.
- 7) If the circumference of a circle is 82π , then the value of 'r' is _____.
- 8) Unit digit of $124 \times 36 \times 980$ is _____.
- 9) An exterior angle of a triangle is 70° and two interior opposite angles are equal. Then measure of each of these angle will be _____.
- 10) In the equation $y = 2x + 1$, if $x = 3$ then the value of y is _____.

III. Say True? or False?:

5×1=5

- 11) Zeros added to the right end of decimal digits do not change the value of that decimal number.
- 12) Circumference of a circle, $c = \pi d$ units, where 'd' is the diameter of a circle.
- 13) $2^3 \times 3^2 = 6^5$
- 14) If the corresponding sides and corresponding angles of two plane figures are equal then they are called congruent figures.
- 15) The General form of the sequence 4, 16, 36, 64, is $y = 2n^2$.

IV. Match the following:

5×1=5

- | | |
|----------------------------------|-----------------------------|
| 16) $1m$ | - a^{m+n} |
| 17) Area of the rectangular path | - $a^m \times b^m$ |
| 18) Area of the circular path | - $\frac{1}{1000} km$ |
| 19) $a^m \times a^n$ | - (LB-lb) sq.units |
| 20) $(a \times b)^m$ | - $\pi(R^2 - r^2)$ sq.units |

PART - B

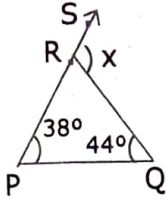
V. Answer ANY 10 questions:

10×2=20

- 21) Express the following decimal number in place value grid and write the place value of the underlined digit: 263.271
- 22) Write the following fraction as decimal : $\frac{9}{1000}$
- 23) Arrange the following in ascending order: 2.35, 2.53, 5.32, 3.52, 3.25
- 24) What is the circumference of the circular disc of radius 14 cm? (use $\pi = \frac{22}{7}$)
- 25) Find the area of the circle of radius 21 cm. (use $\pi = 3.14$)

Ts7M

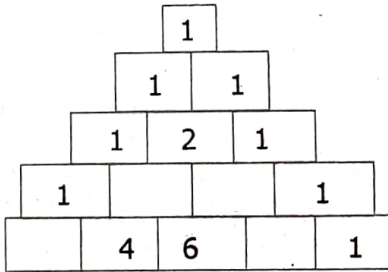
- 26) If the outer radius and inner radius of the circles are respectively 9 cm and 6 cm, find the width of the circular pathway.
- 27) Express 729 in exponential form.
- 28) Find the unit digit of expanded form of 100^{12} .
- 29) Find the degree of the following expression: $12xyz - 3x^3y^2z + z^8$
- 30) Can you draw a triangle with 25° , 65° and 80° as angles?
- 31) In $\triangle PQR$, find the exterior angle $\angle SRQ$.



- 32) Write the relationship between x and y in general form for the following table.

x	-2	-1	0	1	2	-
y	6	3	0	-3	-6	-

- 33) Complete the Pascal's triangle.



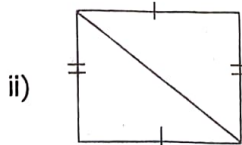
SIVAKUMAR.M,
Sri Ramn Matric HSS
Vallam-622809,
Tenkasi District.

PART - C

VI. Answer ANY FIVE questions:

5×3=15

- 34) Convert the following into simplest fractions: (i) 0.04 (ii) 3.46 (iii) 0.862
- 35) Express the following in kilometers using decimals: (i) 256m (ii) 4567m
- 36) The diameter of the bullock cart wheel is 1.4m. Find the distance covered by it in 150 rotations?
- 37) The radius of a circular flower garden is 21m. A circular path of 14m wide is laid around the garden. Find the area of the circular path.
- 38) Simplify using quotient rule of exponents: (i) $\frac{10^8}{10^6}$ (ii) $\frac{2^8 \times 3^5 \times 5^4}{3^3 \times 5^3 \times 2^4}$
- 39) If $a = 3$ and $b = 2$, then find the value of the following:
(i) $a^b + b^a$ (ii) $(a+b)^b$
- 40) In the following figures, state whether the two triangles are congruent or not. Justify your answer.



- 41) Can row sum of elements in a Pascal's triangle form a pattern? Explain.

PART - D

VII. Answer the following questions:

5×1=5

- 42) Draw a triangle XYZ given that $XY = 6.4$ cm, $ZY = 7.7$ cm and $XZ = 5$ cm.

(OR)

- 43) Draw a triangle LMN given that $LM = 5.5$ cm, $\angle M = 70^\circ$ and $\angle L = 50^\circ$.