



Standard 7
MATHS

Time: 2.00 Hours

Marks: 60

I. Choose the best answer.**5x1=5**

- 1) To convert grams into kilograms, we have to divide it by
a) 10000 b) 1000 c) 100 d) 10
- 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) $2^{40} + 2^{40}$ is equal to
a) 4^{40} b) 2^{80} c) 2^{41} d) 4^{80}
- 4) An exterior angle of a triangle is 70° and two interior opposite angles are equal. Then measure of each of these angle will be
a) 110° b) 120° c) 35° d) 60°
- 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:**5x1=5**

- 6) Between two whole numbers 1.7 lie
- 7) If the circumference of a circle is 82π , then the value of 'r' is
- 8) Degree of the constant term is
- 9) The sum of three angles of any triangle is
- 10) Unit digit of $124 \times 36 \times 980$ is

III. True / False:**5x1=5**

- 11) $3 + \frac{4}{100} + \frac{9}{1000} = 3.49$
- 12) The formula used to find the area of the rectangular path is $(L \times B) - (l \times b)$ sq.units.
- 13) $3^4 \times 3^7 = 3^{11}$
- 14) $7a^2b$ and $-7ab^2$ are like terms
- 15) The general form of the sequence 1, 4, 9, 16, is $y = n^2$

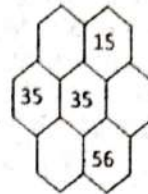
IV. Match it:**5x1=5**

- 16) Perimeter of the circle - 0
- 17) Area of the circle - πd units
- 18) Area of the circular path - 5
- 19) 20^{10} (unit digit of the number) - πr^2 sq.units
- 20) 25^{100} (unit digit of the number) - $\pi(R^2 - r^2)$ units

V. Answer any six questions:**6x2=12**

- 21) The height of a person is 165 cm. Express this height in metre
- 22) Write each of the following as decimal number
i) $20 + 1 + \frac{2}{10} + \frac{3}{100} + \frac{7}{1000}$ ii) $3 + \frac{8}{10} + \frac{4}{100} + \frac{5}{1000}$
- 23) Find the area covered by a hula loop whose diameter is 28 cm [use $\pi = \frac{22}{7}$]

- 24) Find the area of a circular pathway whose outer radius is 32 cm and inner radius is 18 cm
- 25) Find the value of 13^2
- 26) Find the unit digit of expanded form
i) 11^{10} ii) 100^{12}
- 27) Find the degree of the following expressions
i) $-3p^3q^2$ ii) x^5
- 28) If two angles of a triangle having measures 65° and 35° , find the measure the third angle
- 29) The following hexagonal shapes are taken from Pascal's Triangle. Fill in the missing numbers.

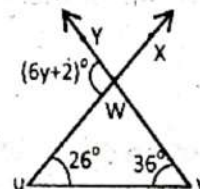


VI. Answer any six questions:

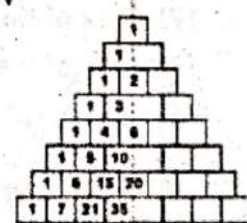
6x3=18

- 30) Express the following decimal numbers in place value grid and write the place value of the underline digit.
i) 53.61 ii) 9.657
- 31) Arrange the following in ascending and descending order
123.45, 123.54, 125.43, 125.34, 125.3
- 32) A Rose garden is in the form of circle of radius 63m. The gardener wants to fence it at the rate of 150 per metre. Find the cost of fencing?
- 33) A floor is 10 m long and 8 m wide. A carpet of size 7 m long and 5m wide is laid on the floor. Find the area of the floor that is not covered by the carpet.
- 34) Simplify using laws of exponents
i) $3^5 \times 3^8$ ii) $2^5 \div 2^3$ iii) $(x^m)^0$
- 35) Add the expressions $4x^2 + 3xy + 9y^2$ and $2x^2 - 9xy + 6y^2$ and find the degree
- 36) If the three angles of a triangle are in the ratio 3:5:4, then find them.

- 37) With the given data in the figure, find $\angle UWY$. What do you infer about $\angle XWV$?



- 38) Complete the Pascal's Triangle by taking the numbers 1, 2, 6, 20 as line of symmetry



VII. Answer any two of the questions:

2x5=10

- 39) Draw a triangle XYZ given that $XY = 6.4$ cm, $ZY = 7.7$ cm and $XZ = 5$ cm
- 40) Draw a triangle ABC given that $AB = 7$ cm, $AC = 6.5$ cm and $\angle A = 120^\circ$
- 41) Draw a triangle LMN given that $LM = 5.5$ cm, $\angle M = 70^\circ$ and $\angle L = 50^\circ$
