

Max. Marks: 25

Time: 30minutes

Q.1 Fill in the blanks:

[4]

a)  $\frac{1}{5} + \frac{1}{15} + \frac{2}{5} + \left(\frac{4}{15}\right)^0 = \dots\dots\dots$

b)  $(4x^2 - 5y^3 + 3y^2) - (3x^2 - 4y^2 + 7y^3) \dots\dots\dots$

$-\frac{21}{34}$  is  $-\frac{34}{21}$  [     ]

c) 30% of 72900 = 2700

[     ]

d) In a rhombus, diagonals are perpendicular and bisect each other.

[     ]

Q.3 Choose the correct alternative to make the given statement true:

[5]

i)  $(-x^2) + (-x^2) + (-6x^2) = \dots\dots\dots$

- a)  $-8x^2$                       b)  $+8x^2$                       c)  $-6x^2$                       d)  $-4x^2$

ii) The number of faces in a cuboid is  $\dots\dots\dots$

- a) 8                                  b) 12                                  c) 10                                  d) 6

iii)  $\sqrt{2 + \sqrt{49}} = \dots\dots\dots$

- a) 3                                  b) 51                                  c) 9                                  d) 25.

iv) Factorize  $9x^2 - 24x + 16$

a)  $(3x+4)^2$

b)  $3x^2 + 4^2$

c)  $(3x-4)^2$

d)  $(3x)^2 - 4^2$

v) The coordinates of a point on x-axis having x-coordinate as 6 are \_\_\_\_\_

a) (0,0)

b) (0,6)

c) (6,6)

d) (6,0)

Q.4 Solve the following:

$[6 \times 2 = 12]$

i) Find :-  $\frac{x^2 - 4x - 21}{x - 7}$

ii) Simplify:

iii) Find the edge of the cube whose volume is  $3375 \text{ m}^3$ . Also, find the surface area.

iv) Simplify:  $(7m+8n)^2 - (7m-8n)^2$

v) Solve the equation:  $\frac{n}{2} - \frac{3n}{4} + \frac{5n}{6} = 21$

vi) Solve: a)  $\frac{1}{3}$  of 999 +  $1\frac{1}{6}$  of 420 -  $\frac{2}{3}$  of 600

b) 20% of 990 + 35% of 400 - 25% of 800