

Name:

Class VII, Sub: Maths

M.M. 50

Class &amp; Sec.:

**Mental Maths: (10)****Q1)** The area of a right-angled triangle whose sides are 6 cm, 8 cm and 10 cm will be

- (a)  $48 \text{ cm}^2$                       (b)  $40 \text{ cm}^2$                       (c)  $24 \text{ cm}^2$                       (d)  $18 \text{ cm}^2$

**Q2)**  $1 \text{ cm}^2 = \dots\dots\dots \text{ mm}^2$ 

- (a)  $10 \text{ mm}^2$                       (b)  $100 \text{ mm}^2$                       (c)  $0.1 \text{ mm}^2$                       (d)  $0.01 \text{ mm}^2$

**Q3)** (2, 3, 5) are sides of a

- (a) Right angled triangle   (b) Scalene triangle   (c) Isosceles triangle   (d) Triangle is not possible

**Q4)** Which of the following is a pair of supplementary angles

- (i)  $(125^\circ, 55^\circ)$   
 (ii)  $(30^\circ, 140^\circ)$   
 (iii)  $(60^\circ, 120^\circ)$   
 (a) Only (i)                      (b) Only (ii)                      (c) (i) and (iii) Both                      (d) (i), (ii) and (iii) all

**Q5)** When two lines intersect, then the angles opposite to each other is called

- (a) Adjacent angles   (b) Linear pair                      (c) complementary angles                      (d) Vertically Opposite angles

**Q6)** Two sides of a triangle are 13cm and 8cm, then the third side will not be less than

- (a) 5 cm                      (b) 8 cm                      (c) 13 cm                      (d) 21 cm

**Q7)**  $(2^5)^3 = ?$ 

- (a)  $2^8$                       (b)  $10^3$                       (c)  $2^{15}$                       (d)  $2^2$

**Q8)** The standard form of the number 340000 will be

- (a)  $3.4 \times 10^6$                       (b)  $3.4 \times 10^5$                       (c)  $3.4 \times 10^4$                       (d)  $3.4 \times 10^3$

**Q9)** Equation for the following statement is

"5 is subtracted from the product of (-8) and y will be 35"

- (a)  $5 - 8y =$                       (b)  $8y - 5 = 35$                       (c)  $5 + 8y = 35$                       (d)  $-8y - 5 = 35$

**Q10)** In the given expression, which of the following is a binomial

- (a)  $x + y + 3$                       (b)  $3xy$                       (c)  $xy + 3$                       (d)  $3xyz$

**Calculation Based: (16)****Q11)** Solve the following equations:

(1.5 + 1.5)

(i)  $\frac{2x}{3} + \frac{5}{3} = \frac{7}{3}$

(ii)  $3(x - 3) = 12$

**Q12)** Find the value of the given expressions when  $a = 2$  and  $b = -3$  (1.5 + 1.5)

(i)  $(a^2 - ab + b^2)$

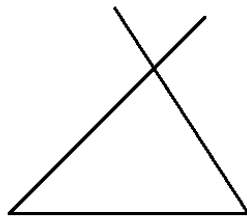
(ii)  $(a + b)^2$

**Q13)** Fill in the blanks: (1 +1 +1)

(i)  $5^3 \div 5^3 = \dots\dots\dots$  (ii)  $7^3 \times 7^4 = \dots\dots\dots$  (iii)  $11^0 = \dots\dots\dots$

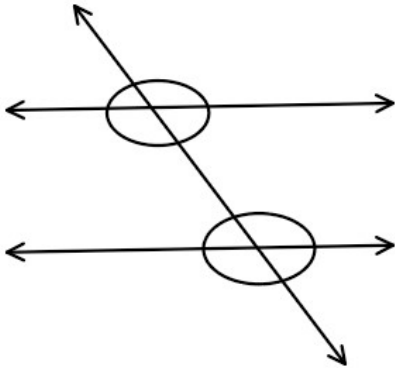
**Q14)** Find the value of x, y and z in the following

(3)



**OR**

In the given figure a parallel to b, t is the transversal then find the value of unknown angles

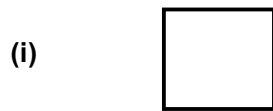


**Q15)** Match the following:

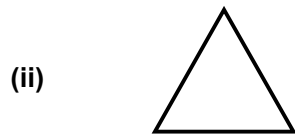
(4)

**Shapes**

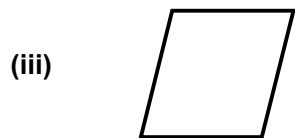
**Area of Shapes**



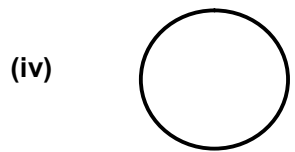
(a)  $54 \text{ cm}^2$



(b)  $154 \text{ cm}^2$



(c)  $144 \text{ cm}^2$



(d)  $72 \text{ cm}^2$

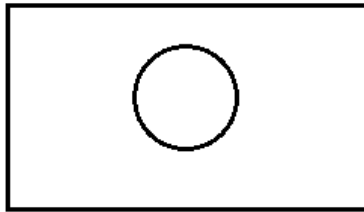
**Application based: (24)**

**Q16)** The angles of a triangle are in the ratio 3:4:5. Find

(2+ 1 + 1)

- (i) Each angle of the triangle.
- (ii) Sum of smallest and largest angle of the triangle
- (iii) Verify angle sum property of the triangle.

**Q17)** In the adjoining figure represents a rectangular lawn with the flower bed in the middle. (4)



Find:

- (i) the area of the whole land
- (ii) the area of the flower bed
- (iii) the area of the lawn excluding the area of the flower bed
- (iv) the circumference of the flower bed

**Q18)** Two cross roads, each of width 10m, cut at right angles through the centre of a rectangular park of length 700 m and breadth 300 m and parallel to its sides. Find the area of cross roads. Also find the area of park excluding cross roads. (4)

**Q19)** What should be added to  $3p^2 - 5q^2 + 4pq - 7$  to get  $p^2 - pq + 7q^2$  (4)

**Q20)** Find the value of : (2+2)

(i)  $\frac{2^0 + 3^0 + 4^0}{5^0 \times 7^0 \times 11^0}$

(ii)  $\frac{(3^2)^5 \times 81}{9^7}$

**Q21)** A tree is broken at a height of 8m from the ground and its top touches the ground at a distance of 15 m from the base of the tree. Find the original height of the tree. (4)

**OR**

In the given figure  $l \parallel m$ ,  $t$  is the transversal Write :

- (a) Pairs of Alternate interior angles
- (b) Pairs of corresponding angles
- (c) Pairs of co-interior angles

