

**MATHEMATICS PART - I**

Grade 08

Time -

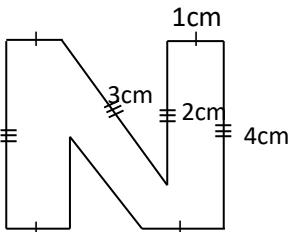
Answer all the questions

(1) Write the next two terms of the following number pattern.

25, 22, 19, ..... , .....

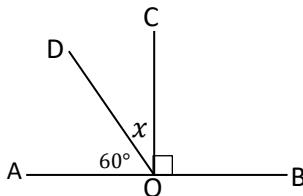
(2) 1, 4, 9, 16, ..... Find the general term of this number pattern.

(3)



Find the perimeter of this figure.

(4) Find the value of  $x^\circ$



(5) Find i) Complement of  $70^\circ$

ii) Supplement of  $70^\circ$

(6) Find the value  $\sqrt{(3 \times 4) \times (3 \times 4)}$

(7) Find the additive of  $(-12)$  and  $(+3)$

(8) Express 7 t 450 kg in kilograms

(9) Find the value a)  $(-7) + (-3)$

b)  $(-3) - (-3)$

(10) Solve  $x + 2 = 10$

(11) The area of a squared land is  $16km^2$  . Find its side length and perimeter.

(12) Fill in the blanks by inserting " $<$ " or " $>$ "

$$4^3 \dots \dots \dots 50$$

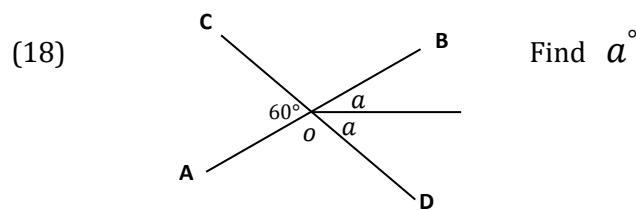
(13) Write and draw the shape of a face of a regular tetrahedron

(14) Find the H.C.F of 6, 12, 18

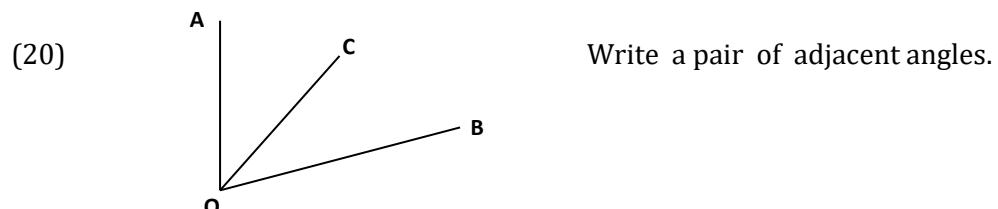
(15) Factorise this expression  $8x + 4y + 12$

(16) Find the value  $\sqrt{144}$

(17) If  $x = 2$  and  $y = -3$  find the value of  $x^2 + y^2$



(19) Name two platonic solids .....

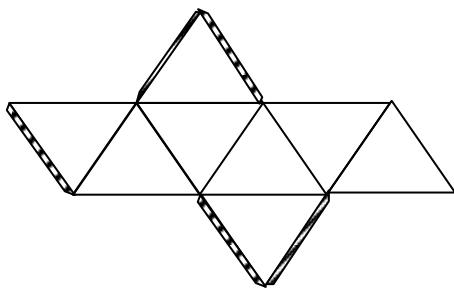


## PAPER - II

Answer first question and only other 4 questions.

Total five questions.

(1) Think of the activity done in your class room when you learning the lesson of solid objects.



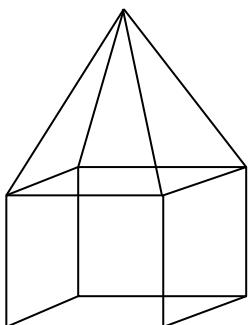
i) Name the solid that can be constructed using the net given above (m.2)

ii) Write the shape of its face . ( m.2)

iii) Using above solid find a) number of edges.  
b) number of faces  
c) number of vertexes (m. 6)

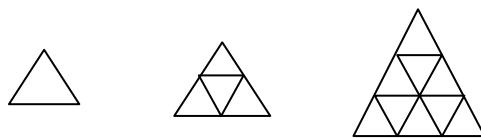
iv) Write down the rulers relationship for solids. (m. 2)

v) verify rulers relationship using the information of above question. (m.1)



iv) This is a solid constructed by joining a cube and a square pyramid. Find,  
a) number of edges  
b) number of faces  
c) number of vertexes (m.2)

(2) i) Draw next pattern of this creation. (m.2)



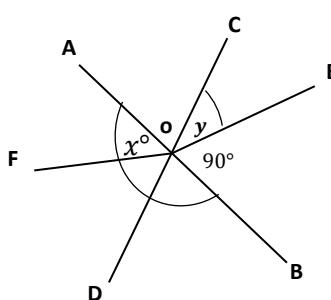
ii) Write down the number of triangles in each figure of the above pattern in order. (m.2)

i) Find the general term of the number pattern. (m.3)

ii) Find the total triangles of 30<sup>th</sup> pattern by using general term. (m. 2)

iii) Show that the figure with 50 triangles is not in this pattern. (m.2)

(3) AB and CD straight lines intersect the point O



a) Find

i)  $x^\circ$  (m.2)

ii) AOC (m.2)

iii) y (m.2)

iv) Magnitude of BOC (m. 1)

b) Name a pair of complementary adjacent angles. (m.2)

c) Name a pair of supplementary adjacent angles. (m.2)

(4) i) Find factors.

a)  $5x + 20$  b)  $3xy + 9xz$  (m.2)

ii) Simplify a)  $\frac{p^7 \times p^3}{p^4}$  b)  $(x^2 y^3)^3$  (m.4)

iii) Find H.C.F

a) i)  $2ab, 9bc$   
 ii) 12, 15, 18  
 iii) 2, 3, 5 (m. 3)

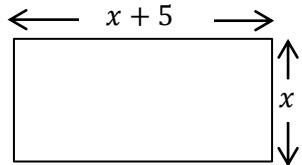
(5) Find the answers.

i) a)  $(+9) + (-2)$       b)  $(+1) - (-3)$   
c)  $(-2) + (-3)$       d)  $(-2) - (-2)$       (m.4)

ii) Simplify 
$$\frac{(+3) \times (-4)}{(-6)}$$
      (m.3)

iii) Find the value of  $\sqrt{100}$  using prime factors.      (m.4)

(6)



Rectangular land with length is  $x + 5$  and breadth is  $x$

i) Find algebraic expression of perimeter. (m.4)

ii) Find Algebraic expression of area.      (m.3)

iii) If perimeter of this land is 50m. Then find  $x$  and length.      (m.4)

(7) i) Simplify.

a)  $t \text{ kg}$   
10 000

b)  $t \text{ kg}$

c)  $5t \text{ } 250 \text{ kg} \times 7$

6 250

d)  $14t \text{ } 800 \text{ kg} \div 4$

$\underline{+ 3 \quad 450}$

$\underline{- 4 \quad 400}$

(m.4)

ii) Fill in the blanks using suitable weighting measuring units

a) Mass of paracetamol tablet is 500 .....

b) Mass of cement bag is 50 .....

(m.2)

iii) If  $a = 2, b = 3, c = 1$  find the value of

i)  $a^2$       (m.1)

ii)  $a^2 b$       (m.2)

iii)  $a^2 b + c$       (m.2)

