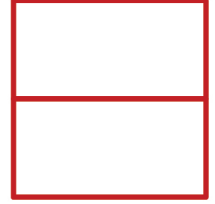


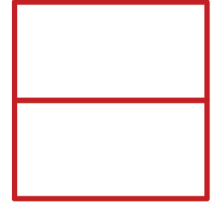
Model (1)

Science



- 1) The two factors which describe the motion of an object are.....
  - a) Speed and time.
  - b) Distance and time.
  - c) Area and time.
  - d) Displacement and speed.
  
- 2) From the examples of vector physical quantities is.....
  - a) Mass.
  - b) Time.
  - c) Length.
  - d) Displacement.
  
- 3) From the examples of living organism which reproduce by budding is .....
  - e) Mushroom
  - f) Yeast
  - g) Star fish
  - h) Amoeba
  
- 4) If a spherical mirror of radius is 20 cm so its focal length is.....cm.
  - a) 40
  - b) 20
  - c) 10
  - d) 5
  
- 5) The passing light ray in the optical center of a convex lens will.....
  - a) pass through the focus
  - b) parallel to the principle axis
  - c) not refract
  - d) reflect on itself
  
- 6) The solar system is located in.....
  - a) The center of galaxy
  - b) the edge of the circular galaxy.
  - c) The nebula
  - d) At one of the arms of the spiral galaxy.

Maths



1) If  $(4, a) \in$  the function  $f: f(x) = x + 1$ , then  $a = \dots\dots\dots$  ( 3 , 4 , 5 , 6 )

2) If  $(x+3, 6)$  located on the  $y$ - axis , then  $x = \dots\dots\dots$  ( 0 , 3 , -3 , 6 )

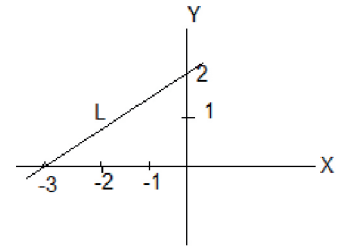
3) If  $Y$  varies directly as  $X$  and  $Y=6$  when  $X = 3$  , then the value of  $Y$  at  $X = 5$  is  $\dots\dots\dots$

( 5 , 8 , 9 , 10 )

5) The arithmetic mean of 1,2,3,4 and 5 = $\dots\dots\dots$  ( 5 , 4 , 3 , 2 )

6) In the opposite figure, the slope of the straight line  $L$  is  $\dots\dots\dots$

(  $\frac{3}{2}$  ,  $-\frac{3}{2}$  ,  $\frac{2}{3}$  ,  $-\frac{2}{3}$  )



7) If  $\tan 3X = \sqrt{3}$  , where  $X$  is an acute angle , then  $m(\angle X) = \dots\dots\dots^\circ$  ( 10 , 15 , 20 , 30 )

8) If  $A ( 5 , 7 )$  and  $B ( 1 , -1 )$  ,then the mid-point of  $\overline{AB}$  is the point  $\dots\dots\dots$

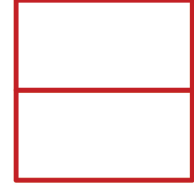
( ( 3 , 3 ) , ( 2 , 3 ) , ( 2 , 4 ) , ( 6 , 6 ) )

**Model (2)**

**Science**

1) A light ray is incident and passing by the focus of a concave mirror, so.....

- a) It will reflect parallel the principle axis.
- b) Reflected on itself.
- c) Reflected and passing by the center of curvature.
- d) Reflected and passing by the pole of mirror.



2) From the examples of scalar physical quantities .....

- a) Mass.
- b) Acceleration.
- c) Force.
- d) Displacement.

3) A convex lens of focal length of 20 cm, so its radius is.....

- a) 40 cm.
- b) 20 cm.
- c) 10 cm.
- d) 5 cm.

4) From the measuring units of speed.....

- a) m/sec.
- b) m/sec<sup>2</sup>.
- c) m.
- d) sec.

5) The universe is formed from the combination of molecules of .....

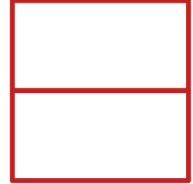
- a) Oxygen and Nitrogen.
- b) Hydrogen and Helium.
- c) Hydrogen and Oxygen.
- d) Nitrogen and Helium.

6) The offspring produced from the asexual reproduction gains traits which ..... the original organism.

- a) are different from.
- b) are identical to.
- c) have a big difference from.
- d) Have a small difference from.

### Maths

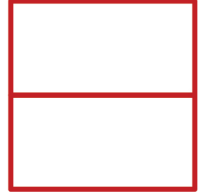
- 1) The function  $f : f(x) = x^4 - 2x^3 + 7$  is a polynomial function of .....degree  
( first - second - third - fourth )
- 2) If Y varies directly as X ,and X=1 when Y = 4 then the constant of variation = .....  
( 1 , -1 , 4 , -4 )
- 3) If  $\frac{a}{3} = \frac{b}{4}$  then  $4a - 3b + 5 = \dots\dots\dots$   
( 4 , 3 , 5 , 7 )
- 4) If the point ( 5 , 3-k ) located on X- axis , then k = .....  
( 0 , 5 -3 , 3 )
- 5) The Range of the values 23,22,15,18 and 17 = .....  
( 8 , 18 , 19 , 23 )
- 6) The slope of the perpendicular straight line to the straight line passes through the two points  
(-1,2) and (0,5) = .....  
( 3 , -3 ,  $\frac{2}{3}$  ,  $\frac{1}{3}$  )
- 7) The straight line whose equation is :  $2x + 5y - 10 = 0$  intersect from x-axis a part  
of length .....unit length  
( 2 , 5 ,  $\frac{5}{2}$  ,  $\frac{2}{5}$  )
- 8) If  $\sin X = \frac{1}{2}$  ,where X is an acute angle , then  $m(\angle X) = \dots\dots\dots^\circ$   
( 90 , 60 , 45 , 30 )



### Model (3)

#### Science

- 1) The ability of some living organisms to regenerate the missing parts is called....
  - a) Regeneration.
  - b) Budding.
  - c) Binary fission.
  - d) Vegetative reproduction.
- 2) A gaseous sphere which forms the planets of the solar systems.....
  - a) Galaxy.
  - b) Nebula.
  - c) The big bang.
  - d) The universe.
- 3) A light ray falls on a plane mirror with an angle of  $30^\circ$  so it will reflect with an angle of .....
  - a)  $30^\circ$
  - b)  $60^\circ$
  - c)  $90^\circ$
  - d)  $180^\circ$
- 4) A vision defect results from the shortness of eye ball diameter.....
  - a) Short sightedness
  - b) Cataract
  - c) glaucoma
  - d) Long sightness
- 5) If a body moves from rest regularly till its velocity reaches  $10\text{m/s}$  .After 2 seconds from the beginning of the movement so the change in its velocity during 2 seconds equals..... $\text{m/s}^2$ 
  - a) Zero
  - b) 5
  - c) 10
  - d) 20
- 6) The total distance that a moving object covers divided by the total time taken to cover this distance is.....
  - a) The final speed
  - b) displacement.
  - c) the average speed.
  - d) the relative speed.



**Maths**

1) If  $\frac{x}{y} = \frac{z}{l} = \frac{2}{3}$ , then  $\frac{x+2z}{y+2l} = \dots\dots\dots$  (  $\frac{2}{3}$  ,  $\frac{3}{2}$  ,  $\frac{1}{3}$  ,  $\frac{9}{4}$  )

2) If  $n(X) = 5$  and  $n(X \times Y) = 10$  then  $n(Y) = \dots\dots\dots$  ( 4 , 3 , 2 , 1 )

3) The simplest scale for measuring deviation is .....(Mean , Median, Range , Mode )

4) The fourth proportion of the values 4 , 12 and 16 is .....(24 ,  $\pm 24$  , 48 ,  $\pm 48$  )

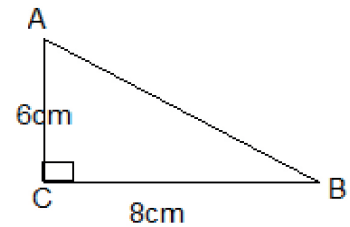
5) If  $m(\angle A) = 75^\circ$  and  $\sin B = \cos A$  ,where B is an acute angle , then  $m(\angle B) = \dots\dots^\circ$

(45 , 75 , 15 , 105 )

6) If the triangle ABC is right angled at angle C

$\cos A \cos B = \dots\dots\dots$

( 0 , 1 , 6 , 0.48 )



7) The product of the slopes of two perpendicular straight lines = .....

( 1 , -1 ,  $\pm 1$  , 0 )

8) If A ( 5 , 7 ) and B ( 1 , -1 ) , then the midpoint of  $\overline{AB}$  is the point .....

( ( 3 , 2 ) , ( 3 , 3 ) , ( 2 , 3 ) , ( 4 , 3 ) )

