**Aarambh classes**

**Class X(CBSE )**

**Science test**

**Time : 2 hours M.Marks : 50**

**Multiple choice questions (10x1=10):**

1. A ray of light passes from glass into air .The angle of refraction will be :
2. Equal to the angle of incidence (ii)greater than the angle of incidence
3. Smaller than the angle of incidence (iv) 450
4. A virtual ,erect and magnified image of an object is to be obtained with a convex lens .For this purpose,the object should be placed :

(i)between 2F and infinity (ii)between F and optical centre

(iii)between F and 2F (iv) at F.

1. The stars twinkle but the planets do not twinkle at night because :
2. the stars are small but the planets are large
3. the stars are very large but the planets are small
4. the stars are much nearer but the planets are far off.
5. The stars are far off but the planets are nearer.
6. A car headlight bulb working on a 12 V car battery draws a current of 0.5 A .The resistance of the light bulb is :
7. 0.5
8. Which of the following colour of white light has the least wavelength ?

(i)red (ii) orange (iii)violet (iv) blue

6. The removal of oxygen from a substance is called

(i) Oxidation (ii) corrosion (ii)reduction (iv)rancidity

7. The acid produced naturally in our stomach is :

(i)acetic acid (ii)citric acid (iii)hydrochloric acid (iv)sulphuric acid

8. One of the following is not an organic acid .This is

(i)ethanoic acid (ii)formic acid (iii) citric acid (iv)carbonic acid

9. The salt which will give an acidic solution on dissolving in water is :

(i) KCl (ii)NH4Cl (iii) Na2CO3 (iv) CH3COONa

10. If the number of protons in one atom of an element Y is 20 ,then the number of electrons in its ion Y+2 will be :

(i) 20 (ii)19 (iii)18 (iv)16

**Answer the following questions :**

**2marks questions : (2x10=20)**

1. **Why** does a driver prefer to use a convex mirror as arear view mirror in a vehicle ?
2. Explain why packaging of food products containing fats and oils are flushed with nitrogen ?
3. What is lateral inversion?Explain by giving suitable examples .
4. The refractive index of diamond with respect to air is 2.42.Calculate the speed of light in diamond if speed of light in air is 3x108 m/s .
5. While diluting an acid , why is it recommended that the acid should be added to water and not water to the acid ?
6. Two solutions A and B have PH values 3 and 9.5 respectively . Which of these will turn blue litmus solution red and which will turn phenolphthalein from colourless to pink ?
7. Give two uses of concave lenses .
8. Explain why the sun can be seen about 2 minutes before actual sunrise .
9. Why are the danger signals light red in colour ?
10. Which of the following will displace hydrogen from acids to form salts ?

S, P ,Na,Si

**3 marks questions : (3x 4=12)**

1. Identify the substance that is oxidized and the substance that is reduced in the following reaction:

4Na(s) +O2 (g) 2Na2O(s)

1. What is bleaching powder? How is bleaching powder prepared ?write the chemical reactions involved .
2. Find the size ,nature and position of image formed when an object of size 1 cm is placed at a distance of 15 cm from a concave mirror of focal length 10 cm.
3. If an object of 7 cm height is placed at a distance of 12 cm from a convex lens of focal length 8 cm ,find the position ,nature and height of the image .

**4 mark questions : (4x2=8)**

1. (i)How much work is done in moving a charge of 2 coulombs from appoint at 118 volts to appoint at 128 volts ?
2. An electric iron draws a current of 3.4 A from a 220V supply.What current will this electric iron draw when connected to 110V supply line ?
3. What happens when silver nitrate solution is added to sodium chloride solution ?
4. write the equation for the reaction which takes place .
5. Name the type of reaction involved .