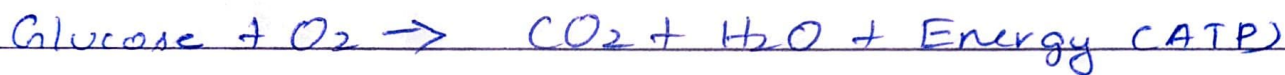


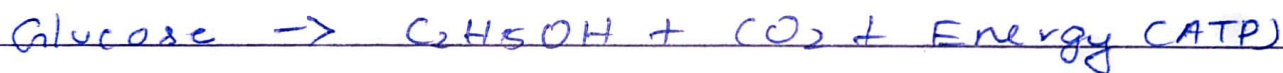
Q1) Terrestrial organisms need not to filter oxygen from air cause it is freely and plentifully available. But aquatic organisms do have gills to filter oxygen because oxygen is not freely available inside water. That's the advantage.

Q2) The different ways in which glucose is oxidised to provide energy in various organisms are -

i) Aerobic respiration,



ii) Anaerobic respiration,



Q3) After respiration  $\text{CO}_2$  and  $\text{H}_2\text{O}$  are produced as by products with energy. Now the blood containing oxygen is called deoxygenated blood. This blood goes to heart and is pumped into lungs for purification. Now blood is oxidised in alveoli and  $\text{CO}_2$  is thrown out through exhalation. And this oxygenated blood is carried to heart for pumping so that respiration could take place.

Q4)

The lungs have numerous branches of bronchi called the bronchioles and at the end of this bronchiole we have alveoli. Now in the alveoli it contains a numerous network of blood vessels in order to maximise the area of exchange of gases. This is how lungs are designed to maximise the area of exchange of gases.

Q2) The xylem in plants are responsible for...

a) transport of water.

Q9) The alveoli have thin wall of blood supplies and a huge network of blood vessels so that gases can be exchanged between blood and oxygen filled air. The alveoli are round and have a balloon structure so that the surface area could increase which is directly proportional to the increment of surface area for gaseous exchange.

Q6) The trachea is provided with cartilagenous rings because so as to support the trachea that C-shaped structure and it protects the windpipe by the peristalsis of the food pipe. Because it may happen that the food pipe and wind pipe have a clash together.