Class – XIth
Chapter – Life Process

Subject – Biology
Chapter End Qns – Ans.

Qn: – The Kidneys in Human beings are a part of system for (a) Nutrition (b) Respiration (c) Excretion (d) Transportation.

Ans: – (c) Excretion.

Qn: – The xylem in Plant is responsible for (a) Transport of water (b) Transport of Food (c) Transport of Amino acids (d) Transport of oxygen

Ans: – (a) Transport of water.

Qn: – The Autotrophic Mode of Nutrition require (a) Carbon dioxide and water (b) chlorophyll (c) Sunlight (d) All of the above.

Ans: – (d) All of the above.

Qn: – The breakdown of Pyruvate to give carbon dioxide and water, energy takes place in (a) cytoplasm (b) Mitochondria (c) chloroplasts (d) Nucleus.

Ans: – (b) Mitochondria.

Qn: – How are Fats digested in our bodies? where does this process take place?

Ans: – In infants Fat digestion occurs in both stomach and small intestine.
In adult Fat is first emulsified with the help of bile juice. Lipase is an enzyme present in pancreatic juice digest fat into Fatty acid and Glycerol, takes place in small intestine.

Qn:— What is the role of Saliva in digestion of food?

Ans:— (I) Moistening and softening of food for easy crushing by teeth.

(II) Saliva has an enzyme salivary Amylase which digest carbohydrate.

Qn:— What are the necessary Conditions for Autotrophic Nutrition and what are its by products?

Ans:— (I) CO_2 (II) water (III) chlorophyll (IV) Sunlight.

By Products :— Glucose (Main product)
- (I) oxygen.
- (II) water.

Qns:— What are the differences between aerobic and anaerobic respiration? Name some organisms that use the anaerobic mode of Nutrition.

Ans:—

	Aerobic Respiration.	Anaerobic Respiration.
1.	Takes place in the presence of O_2	Takes place in absence of O_2.
2.	First step, Glycolysis takes place in cytoplasm and second step takes place in Mitochondria	Complete Process (all steps) takes place in cytoplasm.
3.	Glucose is completely oxidised	Glucose is partially oxidised
4.	End products – CO_2, H_2O and Energy	CO_2, Ethyl Alcohol and Energy (in yeast) Lactic Acid + Energy (in Muscles)
5.	38 Molecules of A.T.P are produced.	only 2 molecules of A.T.P are produced.
	Anaerobic Organisms:—	Yeast, Lactobacillus, Ascaris. Taenia.

Qn:- How are Alveoli designed to maximise the exchange of gases?

Ans:- Alveoli are small pouches or sacs. More than a millions occurs inside each Lung. The whole surface of an Alveolus functions as respiratory surface. It is estimated that when total Alveolus will spread a large surface area (about $80 m^2$) will be for gaseous exchange in Lungs.

Qn:- What would be the consequences of deficiency of Haemoglobin in our body?

Ans:- Deficiency of Haemoglobin is called Anaemia. In Anaemia person feel weak, looks pale, become lethargic and unable to perform physical work. Blood is unable to carry high amount of O_2.

Qn: (Last Q) Compare alveoli in the lungs and nephrons in the kidneys with respect to structure and Functioning.

Ans:-

	Alveoli	Nephrons
1.	Shape — Rounded / Polyhedral	Elongated Tubule
2.	Components — Single structure.	It has two Components:- (I) Malpighian Capsule — 1. Bowman's capsule 2. Glomerulus. (II) Renal Tubule — P.C.T, Loop of Henle, D.C.T
3.	Blood Capillaries:- one type and lie all over the Alveoli	Two Patches — 1. Glomerular 2. Peritubular Capillaries
4.	Function — Perform gaseous exchange	Separates nitrogenous wastes from blood.

— o —