

Gaining Apex Coaching Centre

(Where Toppers make..... Toppers)

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Life Processes: Assignment I

1.(a) Draw the structure of a nephron and label the following on it:

Glomerulus, Bowman's capsule, Renal artery, Collecting duct.

(b) What happens to glucose that enters the nephron along with filtrate?

2.(a) List the three events that occur during the process of photosynthesis.

Explain the role of stomata in this process.

(b) Describe an experiment to show that "sunlight is essential for photosynthesis.

3.(a) Leaves of a healthy potted plant were coated with vaseline to block the stomata. Will this plant remain healthy for long? State three reasons for your answer.

(b) State any two differences between autotrophic nutrition and heterotrophic nutrition.

4.(a) Draw a diagram to show the nutrition in Amoeba and label the parts used for this purpose.

Mention any other purpose served by this part other than nutrition.

(b) Name the glands associated with digestion of starch in human digestive tract and mention their role.

(c) How is required pH maintained in the stomach and small intestine?

5. (a) Draw a sectional view of the human heart and label on it – Aorta, Right ventricle and Pulmonary veins.

(b) State the functions of the following components of transport system:

(i) Blood (ii) Lymph(5)

6.(a) Draw a diagram depicting Human Alimentary Canal and label on it: Gall bladder, Liver and Pancreas.

(b) State the roles of Liver and Pancreas.

(c) Name the organ which performs the following functions in humans:

(i) Absorption of digested food

(ii) Absorption of water

7.(a) Draw a diagram of human respiratory system and label the following:

(i) part where air is filtered by fine hair and mucus

(ii) part which terminates in balloon – like structures

(iii) balloon – like structures where exchange of gases takes place. (iv) part which separates chest cavity from abdominal cavity.

(b) Why is the rate of breathing in aquatic organisms much faster than in terrestrial organisms?

8. Draw a diagram of human respiratory system and label on it :

(i) Diaphragm (ii) Larynx