

Short Answer Type Question - I

Q.1. Name two leucocytes which are phagocytic.

Ans. Monocytes and Neutrophils

Q.2. What is histology ? who coined the term ?

Ans. The study of tissues is called histology, or microscopic anatomy. The term histology was coined by Meyer.

Q.3. What are functions of epithelial tissues ?

Ans. (i) It protects the underlying tissues from mechanical and chemical injuries, dehydration and infection.

(ii) It act as a selection barriers.

(iii) It also forms glands that secrete secretions such as mucus, gastric juice and intestinal juice.

(iv) Epithelium of uriniferous tubules, stomach and intestine is absorptive.

Q.4. What are the functions of mast cells ?

Ans. (i) Mast cells granules releases heparin which prevents activation of prothrombin, thus preventing coagulation of blood in the blood vessels.

(ii) The granules store information producing substances like histamine.

Q.5. Name the tissue that lines the bronchioles. State any one advantage of this tissue being present there.

Ans. Ciliated epithelium lines the bronchioles **Advantage :** The ciliary movement maintains the flow of mucus or liquid or suspended bodies constantly in one direction.

Q.6. Write about transitional epithelium and its use.

Ans. Transitional epithelium:

(i) It consists of many layers of cells, which are thin and stretchable.

(ii) It is made up of a single layer of cuboidal cells at the base, two or three middle layers of polygonal or pear-shaped cells and an outer most layer of rectangular and oval cells.

Use : It is present over urinary bladder and helps in its expansion during urine storage.

Q.7. What are endocrine glands ?

Ans. Endocrine glands are ductless glands which pour their secretions directly into the blood or lymph. Their secretion is known as hormones. e.g., pituitary gland, thyroid gland etc.

Q.8. Name the tissue that lines the intestinal mucosa. State the advantage of this tissue being present there.

Ans. Brush-bordered columnar epithelium lines the intestinal mucosa.

Advantage : The presence of microvilli on the columnar cells increases the surface area for absorption, thus helping in efficient absorption.

Q.9. What are the main functions of nervous tissue ?

Ans. (i) The nervous tissue is meant for reception, interpretation and transmission of information.

(ii) The nervous tissue co-ordinates and integrates the activities of various body parts.

Q. 10. What are fat storing connective tissues? Give its structure.

Ans. Adipose tissue is the fat storing connective tissue.

Structure:

(a) It consist of spherical or oval adipose cells containing fat globules.

(b) They are of two types: **White fat** containing large and simple fat globule and **brown fat** with several fat granules.

Q.11. Where is areolar tissue present in our body ? Name the types of cells and fibres found in it.

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Ans. Areolar tissue is present under the skin as subcutaneous tissue in between and around muscles, nerves and blood vessels in submucosa of gastro - intestinal tract and respiratory tract. The areolar tissue consists of ground substances, the matrix, white, yellow and reticular fibres and cells like fibroblasts, mast cells, macrophages, lymphocytes, plasma cells, mesenchyme cells and chromatophores.

Q.12. Give the location of hepatic caecae in a cockroach. What is their function ?

Ans. Hepatic or gastric caecae are 6-8 narrow and hollow blind tubules that are present at the junction of foregut and mid gut. The hepatic caecae, secretes digestive juices and help in the digestion.

Q. 13. Write a note on gaseous exchange in cockroach.

Ans. Gaseous exchange in cockroach:

(i) Cockroach is an insect which possess tracheal system.

(ii) It has a complicated system of air tubes which divides continuously and form tracheoles for the exchange of gases.

Q. 14. Describe in brief types of nephridia found in earthworm based on their location?

Ans. Nephridia are of three types :

(i) Septal Nephridia : These are present on both the sides of intersegmental septa and open into intestine

(ii) Integumental Nephridia : These are found attached to the lining of the body wall and open on the body surface.

(iii) Pharyngeal Nephridia : These are found on the 4th, 5th, and 6th segment in the form of three paired tufts.