ANIMAL TISSUE

Question/Answer

1) What is a tissue?

Ans A group of cells, similar or dissimilar in shape and of same origin and performing particular functions in a multicellular living body is called tissue.

2) Name the 4 types of animal tissue

Ans The four types of animal tissue are

i) Epithelial tissue

ii) Connective tissue

iii) Muscular tissue

iv) Nervous tissue

3) What do you mean by simple and stratified epi-thelial tissue?

Ans Simple epithelial tissue is composed of a single layer of cells, present on a thin basement membrane.

Stratified epithelium tissue means that tissue is composed of many layers of cells.

4) Write the characteristics features of epithelial tissue?

Ans The characteristics features of epithelial tissue are

i) Epithelial tissue is composed of closely packed cell. Due to close packing the cells are held together by a very thin layer of intercellular substance (it resembles the cementing substance present in between the bricks wall).

ii) In the epithelial tissue the cells are situated on a membrane known as basement membrane

iii) It covers the free surfaces of different parts and visceral organs of the body.

iv) It is devoid of any blood vessels and lymph vessels

5) State the primary function of epithelial tissue.

Ans The primary function of epithelial tissue is to cover the outer surface and inner surface of the body.

6) Name the types of epithelial tissue found in

a) Skin - Stratified squamous cornified

b) inner lining of mouth - Squamous non-cornified

c) Nephron - Simple squamous epithelium

d) small intestine - Simple columnar epithelium

e) Alveoli of lungs - Simple squamous epithelium

f) Bronchioles - Simple cuboidal epithelium

g) trachea - Simple Ciliated epithelium

h) Ovary - Simple Cuboidal epithelium

i) Salivary gland - Glandular epithelium

7) Why connective tissue is so called?

Ans Connective tissue is so called because it connects various tissues and organs of the body.

8) Classify connective tissue into three major types with example

Ans The three major types of connective tissue are

i) Fibrous Connective tissue - Eg - Areolar, Adipose, Fibrous
ii) Skeletal Connective tissue - Eg - Bone, Cartilage
iii) Fluid Connective tissue - Eg - Blood, Lymph.

9) State the characteristics features of connective tissue.

Ans The characteristics features of connective tissue are:

i) Connective tissue is composed of comparatively less number of cells which remain apart from each other with prominent intercellular space.

ii) It contains fibrous elements with more intercellular fluid.

iii) Absence of basement membrane.

iv) It connects the different parts of the body.

10) Why skeletal muscles are called striated muscle?

Ans Skeletal muscles are called striated muscle because alternate dark and light areas (bands) are present along its length.

11) Name the muscle present in heart. Describe the muscles structure.

Ans Cardiac muscle is present in heart. It is also known as heart muscle.

Cardiac muscle fibre appears both longitud-inally and transversely striation. Functionally it is involuntary. So heart muscle is striated but involuntary in function. Cardiac muscle form he-art.

12) Differentiate between the following

a) Muscle in alimentary canal and skeletal muscle

	Muscle in alimentary canal	Skeletal muscle
i)	Does not possess light and dark bands (striation)	i) Possess alternate dark and light area (bands) along its length
ii)	This kind of muscle is free from voluntary control and hence called involuntary muscle	ii) This kind of muscle works by the desire of the individual, hence called voluntary muscle
iii)	The chief function of this muscle is the working of the internal organs.	iii) The chief function of this muscle is to help in movement and loco-motion.

b) Cardiac muscle and smooth muscle

	Cardiac Muscle	Smooth Muscle
i)	Cardiac muscle fibre appears both longitudinally and transve-resely striations	i) Smooth muscle does not possess any striation
ii)	This muscle is present in the wall of heart	ii) This muscle is present in the walls of the blood vessels and also forms the lining walls of the visc-eral organs.
iii)	This muscle causes pumping action of the whole heart.	iii) This tissue is involved in the working of the internal organs.

c) Cuboidal epithelium and columnar epithelium

	Cuboidal Epithelium	Columnar Epithelium
i)	Composed of cube shaped cell	i) Composed of pillar like cells that is their height is more than th breadth.
ii)	Nucleus is present in the middle of cell	ii) Nucleus is present towards the base of cell.
iii)	The main function of this tissue is that it forms a protective layer on the surface where it is present.	iii) The main function of th tissue is absorption.