

Supplements for online classes held on 11th July

BSc Part II Hons

Plate – 1

Heart, basic structure, function and its Evolution

Heart is muscular pumping organ of the circulatory system.

- ❖ *It consists of the Involuntary muscle.*
- ❖ *Self-controlling organ, controlled by pace maker.*
- ❖ *After death it may keep itself functional.*
- ❖ *Human Heart pumps pure blood to whole body and it also pumps impure blood to the lungs for oxygenation.*

Plate – 2

- ❖ *The movement of body fluid (blood and lymph) from one part of body to other parts is called **Circulation**.*
- ❖ *Blood Circulation discovered by **William Harvey**.*
- ❖ *Animal possesses two type of circulatory system.*

❖ In open type circulatory system, the blood comes out of the blood vessel. For example: in leeches(annelids), Arthropods, Mollusca and Ascidians

there is no inter-connecting vessels(capillaries) between arteries and veins.

Plate – 3

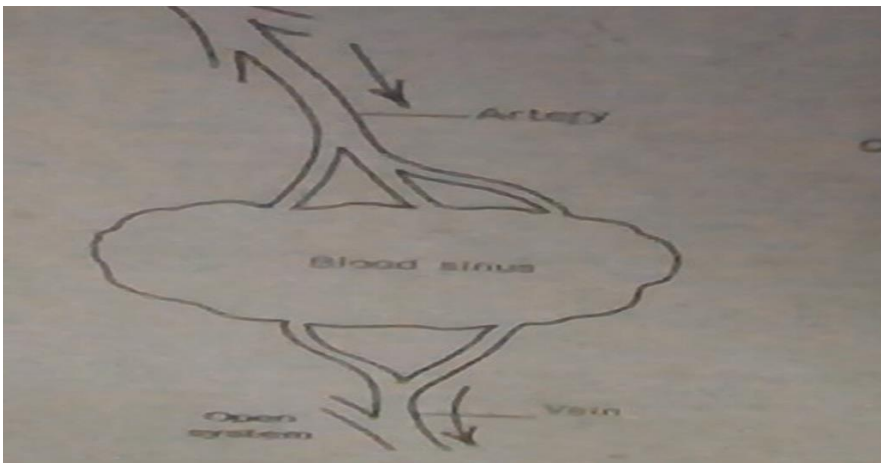


Plate – 4

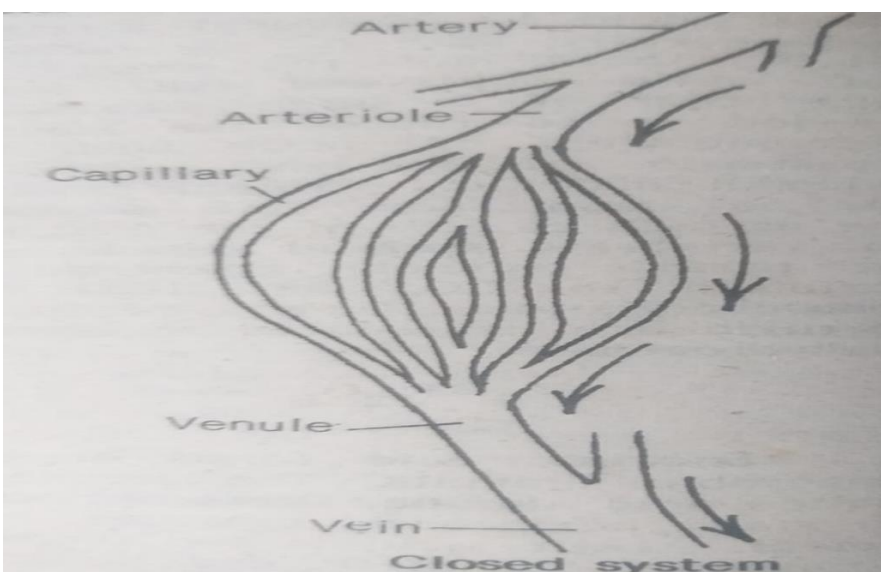


Plate – 5

- ❖ In closed type circulatory system, the blood remains inside the blood vessels. It occurs in annelids molluscs vertebrates.
- ❖ Heart is of various types it may be
 - i. Pulsatile heart found in Annelids and Amphioxus.
 - ii. Tubular Heart found in Arthropods, Balanoglossus and Ascidians.
 - iii. Chambered Heart found in Vertebrates, it is of following types
 - a) Single Chambered Heart found in Amphioxus.
 - b) Double Chambered Heart found in Fish except Dipnoid.
 - c) Triple Chambered Heart found in Frogs, Dipnoid, amphibian and reptile.
 - d) Four Chambered Heart found in crocodiles, birds and mammals