

Marks-6

- Q) What do you mean by flight muscles? Describe
- 1) What do you mean by snake venom and mention its chemical nature & chemical composition and types?

Ans:

Snake venom is a clear, transparent, pale yellow or straw coloured fluid having a specific gravity of 1.03-1.07. It is protein in nature containing many enzymes viz. protease, Hyaluronidase, Acid phosphatase, Ribonuclease, Deoxyribonuclease etc. The composition of venom varies species to species.

Types

Snake venom is classified into 3 groups according to the nature of action on tissues of human beings.

1. Neurotoxic:

The venom effects mainly on nervous system, ultimately the respiration ceases due to failure of nervous system and death occurs. This type of venom occurs in Cobras, Kraits, mambas and Coral snakes.

2. Haemotoxic:

The venom acts on blood vascular system. Damage is seen to the lining of blood vessels causing haemorrhages. R.B.C. is destroyed causing haemolysis. Clotting of blood occurs, e.g. vipers and rattlesnakes.

3) Myotoxic

(3)

The venom affects on muscles. This type of venom is seen in sea snakes.

(2) What is portal veins? Describe the portal system in toad.

Ans: vein is a blood vessel that originates from various parts of the body and carries blood to the heart.

A portal vein has its origin in capillaries and its ends in capillaries. The blood from the portal vein returns to the heart through an intermediate organ. The hepatic and renal portal systems are two portal systems in toad.

Hepatic portal system:

The capillaries from the gut unite to form a hepatic portal vein, which again breaks up into capillaries in liver. The capillaries from the posterior part of the body unite to form the renal portal and the anterior part of the hepatic portal vein and the anterior abdominal vein or epigastric vein. Hepatic vein under the liver and enters into the anterior abdominal vein. The main vessel receives the substance of the liver. The anterior abdominal vein is formed by the union of two pelvic veins in the midventral line. The pelvic vein arises as an offshoot of the femoral vein on its anterior branches from the urinary bladder and the ventral body wall.

4) Renal portal ~~vein~~ System;

The capillaries from the posterior part of the body unite to form two renal portal veins which in turn break up into capillaries in the kidneys on their way to the heart.

The blood from the hindlimbs is carried by the femoral and sciatic veins. Each femoral vein on entering the body cavity gives off a pelvic vein. The main trunk of the femoral vein receives the sciatic vein above the level of the pelvic vein to form the renal portal vein. The renal portal vein proceeds by the side of the corresponding kidney and enters into it to break up into capillaries. Each renal portal vein receives two or three dorsolumbar veins carrying blood from the body wall.