

GENERAL ORGANISATION OF PISCES (FISHES).

B.Sc. (H) 200
Part - II
Paper - III/34

The class Pisces is divided into :-

- (1). Chondrichthyes - Cartilaginous fishes (e.g.) - Shark.
 - (2). Osteichthyes - Bony fishes (eg) - Mullet.
 - (3). Choanichthyes - Lung fishes (eg) - Dipnoi.
- All living fishes come under the three categories.

The class Pisces (fishes) is characterised by the general features :-

- (1). They are all aquatic and are either freshwater or marine.
- (2). The body is covered by scales derived from the dermis (contrast with reptilian epidermal scales).
- (3). Being aquatic, respiration is by gills.
- (4). The nostrils are mainly olfactory in function.
- (5). A lateral line sense organ is present.
- (6). Sexes are separate, many are oviparous, some ovoviviparous and a few viviparous.
- (7). The fishes are cold-blooded i.e., poikilothermic.
- (8). The heart is two chambered with one auricle and one ventricle.
- (9). Locomotion is by fins, some median and some paired. The paired fins are homologous with limbs of higher vertebrates.
- (10). Eyes covered by nictitating membrane, no eyelids.

- (1). Aquatic life :- The body of the fish is spindle shaped so as to encounter least resistance in movement through water.
- (2). Body covering :- The maximum surface of the body is covered by epidermal scales which are impermeable to water. The scales may be placoid, cosmoid, ganoid, cycloid or ctenoid.
- (3). Locomotion :- The median dorsal fins help to stabilise position in water, but for them, the fish will turn upside down due to heavy dorsal part.
- (4). Respiration :- Paired pharyngeal clefts called gill slits are present at the sides of pharynx. Gill filaments project into these slits from the gill bars.
- (5). Eyes :- The eyes of the fish is best like mammalian eye but there are no eyelids.
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