

## REPTILIA

Q:- Classify class Reptilia upto its orders alongwith its distinguishing characters & examples of each order.

Ans:- The amniotes with dry and scaly skin are known as reptiles. The latter ruled the earth during the mesozoic era. These are characterised by possession of following diagnostic characters:—

- (1) These are cold blooded mostly terrestrial and some aquatic animals.
- (2) This is the first group of vertebrate animals who perfected themselves to lead terrestrial life and lay cleidoic eggs.
- (3) Extraembryonic membranes like amnion and allantois are formed during development.
- (4) These have two pairs of well built pentadactyle limbs. The digits bear claws. These move by crawling.
- (5) The body remains covered with epidermis, horny scales or bony plates. skin is devoid of gland.
- (6) Alimentary Canal, genital duct as well as urinary duct open out by cloaca.
- (7) Respiration occurs by lungs in adult & by gills in embryo.
- (8) Heart is composed of two auricles and one incompletely divided ventricle.

(9) males have copulatory organs. Fertilization is internal and development is external.

(10) Excretion is performed by metanephric kidneys.

(11) The number of cranial nerves is 12 pairs

(12) The skull is moncondyle with one or more temporal vacuities or fossae and bears persistent paired foramen.

(13) Lateral line system is absent. RBCs are oval, biconvex and nucleated.

on the basis of presence or absence of fossae in the temporal region of skull. This class has been divided into four subclasses: —

Subclass 1. ANAPSIDA: —

(I) Fossa or vacuity is absent in the temporal region of skull.

(II) The quadrate is subnally articulated to the otic bone.

(III) Body is enclosed in carapace and blastom.

order (1) Cotylosauria (Extinct)

Ex: — Seymouria, Lepidosaurus.

order (2) Chelonia

(I) Tank region of the body is protected with bony shields, carapace on the dorsal and

- plastron on the ventral sides.
- (i) Limbs are very strongly modified into flippers or webbed to form paddles. Fingers terminate into claws.
  - (ii) Mandible is fused to otic bone.
  - (iii) Head, neck, limbs and tail are covered with scales and can be drawn inside shields.
  - (iv) Jaws are toothless but provided with horny teeth.
  - (v) These are inhabitants of land, fresh water or marine water.
  - (vi) Copulatory organ is present. cloacal opening is longitudinal.
  - (vii) Ex: — Testudo (Tortoise, terrestrial), chelone (turtle, semi-aquatic and marine), Kachuga.

## Sub class 2. PARAPSIDA

- (i) The skull bears a pair of temporal vacuities, one on either side. Each temporal vacuity is bounded by postorbital and supra temporal below and by the parietal above.
- (ii) includes extinct Perm. Ex: — Ichthyosaurus, protosauropsids etc.