

## Quadrant II – Transcript and Related Materials

**Programme : Bachelor of Science (Second Year)**

**Subject : Zoology**

**Paper Code : ZOC 103**

**Paper Title : Anatomy of Animal Body Systems**

**Unit : 01**

**Module Name: Dermal derivatives-Part II**

**Module No : 13**

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### Notes:

Derivatives which are derived from the dermis are called as Dermal derivatives. These include scales of extinct fishes, cartilaginous fishes and bony fishes.

**FISH-** In bony fishes scales have a thin isopedine layer.

There are two kinds of leptoid scales

1. **Cycloid scale-** they are round thick in the centre and towards the margins they are thin.
2. **Ctenoid scale-** they have same shape and structure like cycloid scale but they have small cteni on their posterior margin.

**AMPHIBIA-** Dermal scales are present in Apoda of Amphibia. They are found in the pockets of the epidermis.

**REPTILIA-** The large dermal scales in tortoises and turtles are the osteoscutes.

**AVES-** The dermal derivatives are absent in aves.

**MAMMALS-** The true dermal scales are present in Armadillo.

**DERMAL FIN RAYS:** The fins of fishes are supported by fin rays.

There are 3 types of fin rays

1. **Ceratotrichia**
2. **Lepidotrichia**
3. **Actinotrichia**