

Subject - Botany

Course - Major - 4

By: Dr Umesh Kumar (Guest Teacher)

Question - Describe classification of Bryophyte.

Answer: Classification of Bryophyta

Bryophyta is divided into major three classes -

(1) Class - Hepatopsida - (5)

→ Dorsiventral (sometimes erect or radial) gametophyte, sometime thallose or with leaf like appendages.

→ Gametophyte tissue may or may not be differentiated.

→ Sex organs develop from epidermal cells.

→ Sporophyte simple or differentiated into foot, seta and capsule. Capsule always of limited growth.

→ Sporogenous cells of endothelial origin and capsule without any columella.

Hepatopsida is divided into following orders, such as Sphaerocarpaceae, Marchantiales, Jungermanniales and Calobryales.

(2) Class - Anthoceropsida

→ Gametophyte dorsiventral, never biliose

→ Gametophyte tissue homogenous.

→ Sex organs - archegonia of epidermal origin and antheridia of hypodermal origin.

① → Sporophyte differentiated into foot & capsule. Lower part of capsule always remains meristematic so that growth of capsule is not limited.

→ Sporogenous cells of amphithecial origin (except Notothylus), sterile columella present.

Anthoceroptida is divided into Anthocerotales order.

### (3) Class - Bryopsida

→ Gemetophyte after short, protonemal phase develops erect shoots of radial symmetry with leafy appendages on the stem like structure.

→ Gemetophytic tissue is differentiated.

→ Sex organs of epidermal origin.

→ Sporophyte of limited growth and usually differentiated into foot, seta and capsule.

→ Sporogenous cells endothelial origin but always surrounding a sterile columella.

Bryopsida is divided into Bryales and Sphornales orders.

