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B.Sc. PART-I (H)

CORE CONCEPT OF BRYOPHYTA.

**COLUMELLA OR CAPSULE:** Operculum is the uppermost obliquely placed cap-like portion of the capsule. It is separated from the rest of the capsule by a rim. Above the rim is the annulus which is present at the junction of the operculum and the main body of the capsule. Rings of peristome teeth are present below the cavity of the operculum and are attached below the edges of the rim. There are two rings of conically elongated teeth each ring consisting of 16 teeth. The teeth of the outer ring are reddish in colour and functional. These are bent inwards and provided with thick transverse parenchyma bands. At the maturity of the capsule, these teeth by

their hygroscopic movement help in the dispersal of the spores. The ring of non-functional teeth are thin, short colourless membranous and without any transverse bands. Capsule wall is several-layered thick. The innermost zone is represented by air-spaces traversed by trabeculae. Apophysis is the autotrophic basal portion of the capsule with stomata and chlorophyllous cells. Columella is the central sterile portion of the capsule. It conducts water and minerals. Spore sac is a continuous single sac surrounding the columella. Its outer wall is three layered and the inner wall is the single layered.