

Name: _____					
Subject: Biology		Class: 11 th		Time: 80 minutes	
Total Marks: 40		Chapter No.9 1 st half		MJDexpert.com	
Obtained marks					

Note: Please attempt any 11 short questions from Question 2. Also, attempt both parts (a and b) of Question 3. Cutting and removal of any content is strictly prohibited.

Objective-Section

Q. 1 Encircle the correct answer. (10x1=10)

- What is the primary characteristic of plants in the Kingdom Plantae?
(A) Prokaryotic (B) Autotrophic (C) Motile (D) Unicellular
- Which group of plants is characterized by the absence of vascular tissues?
(A) Tracheophyta (B) Bryophyta (C) Psilopsida (D) Lycopsida
- Which of the following is a non-vascular plant?
(A) Mosses (B) Ferns (C) Conifers (D) Flowering plants
- In Bryophytes, which generation is dominant?
(A) Sporophyte (B) Gametophyte (C) Protonema (D) Rhizoids
- What is the function of rhizoids in Bryophytes?
(A) Photosynthesis (B) Water absorption and anchorage (C) Spore production (D) Gas exchange
- Which structure in Bryophytes is responsible for fertilization?
(A) Foot (B) Seta (C) Capsule (D) Archegonium
- What type of spore production is exhibited by Bryophytes?
(A) Heterosporous (B) Homosporous (C) Diploidy (D) Triploidy
- Which of the following is a characteristic of Hepaticopsida?
(A) Leafy structure (B) Thalloid plant body (C) Vascular tissues (D) Strobili
- What adaptation allows Bryophytes to survive in terrestrial environments?
(A) Formation of cuticle (B) Development of vascular tissues (C) Production of seeds (D) Presence of true leaves
- In which group of Bryophytes does the sporophyte not depend on the gametophyte for nourishment?
(A) Hepaticopsida (B) Bryopsida (C) Anthocercopsida (D) Psilopsida

Subjective-Section

Q.2 Write short answers of any ten of the following questions: (11x2=22)

- Define the term "Phylogenetic System of Classification."
- What are the main differences between non-vascular and vascular plants?
- Describe the structure and function of the sporophyte in Bryophytes.
- Explain the role of the gametophyte in the life cycle of Bryophytes.
- What are the main features of Hepaticopsida?
- How do mosses differ from liverworts in terms of their structure and habitat?
- What is the significance of alternation of generations in Bryophytes?
- Define "Homosporous" and give an example of a plant group that exhibits this trait.
- Describe the adaptation mechanisms of Bryophytes that allow them to conserve water.
- What is the role of the protonema in the life cycle of mosses?
- Differentiate between microphylls and megaphylls.
- How does the evolution of leaves contribute to the adaptation of vascular plants?

Q.No.3 Long Question: (4+4=8)

- Describe the life cycle of Bryophytes, including the alternation of generations.
- Discuss the adaptive features of Bryophytes that enable them to live in terrestrial environments, including the role of structures such as rhizoids and cuticle.