

4. PLANT KINGDOM

1 × 4 = 4 Marks

ROOT POINTS

1. **Plant kingdom** consists of all eukaryotic, multicellular chlorophyll plants.
2. Plant kingdom includes **Algae, Bryophytes, Pteridophytes, Gymnosperms, Angiosperms.**
3. It is divided into (i) **Cryptogams** (non-flowering plants) (ii) **Phanerogams** (flowering plants).
4. **Cryptogams (non-flowering plants):** Algae, Bryophytes, Pteridophytes
5. **Phanerogams (flowering plants):** Gymnosperms, Angiosperms
6. **Algae** are **chlorophyll** bearing, **thalloid**, autotrophic, **aquatic** organisms.
7. Depending on the types of pigments and stored food, algae are classified into (i) chlorophyceae, (ii) Rhodophyceae (Red algae) (iii) Phaeophyceae (Brown algae). **[IPE]**
8. **Fixation of carbondioxide** on Earth is mainly carried out by **algae.** **[IPE]**
9. **Bryophytes** are the **amphibious** of plant kingdom. They live on moist soil but require water for sexual reproduction.
10. **Bryophytes are divided into three Classes:**
(i) Hepaticopsida (Liverworts), (ii) Anthocerotopsida (Hornworts) (iii) Bryopsida (Mosses)
11. **Mosses** provide **food for herbivorous** mammals and birds. **[IPE]**
12. The plant body of **liverworts** and hornworts is **Thallus** whereas **mosses** have up right **Slender axes** baring spirally arranged leaves. **[IPE]**
13. **Homosporous pteridophytes:** The plants which produce only **one kind of spores** are called **homosporous** pteridophytes. **Ex:** Psilotum, Lycopodium **[IPE]**
14. **Heterosporous pteridophytes:** The plants which produce **two kinds of spores** on the same plant are called **heterosporous** pteridophytes. **Ex:** Selaginella, Salvinia. **[IPE]**

FRUITY Qs OF IPE

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1. Differentiate between red algae and brown algae.
2. Differentiate between liverworts and mosses.
3. What is meant by homosporous and heterosporous pteridophytes? Give two examples.
4. What is heterospory? Briefly comment on its significance. Give two examples.
5. Write a note on economic importance of Algae and Bryophytes.
6. Give a brief account of prothallus.