

ACTIVITY 9 — (Pteridophytes) (Adiantum, Fern)

Q 1. Can we grow Adiantum in a pot?

Ans. Yes Adiantum can be grown in pot.

Q 2. Give characters of Adiantum sporophyte.

Ans. The Adiantum sporophyte consists of underground stem, called rhizome with rhizoids and aerial leaves which are compound leaves.

Q 3. What is Prothallus, give the characters of Adiantum prothallus?

Ans. Prothallus is a gametophyte of Adiantum. It is heart-shaped, produces antheridia and archegonia. It also produces rhizoids from lower region.

Q 4. Give systemic position of Adiantum.

Ans. Adiantum belongs to kingdom plantae, division - pteropsida.

Q 5. What are antheridia and archegonia of Adiantum.

Ans. Antheridia are male and archegonia are female reproductive organs.

Q 6. Where do you find spores of Adiantum?

Ans. The spores of Adiantum are produced in sori, which are developed on Adiantum leaves.

ACTIVITY 10 — (Gymnosperms – Pinus)

Q 1. Why flowers of Pinus are called cones?

Ans. In Pinus the flowers are in the form of cone like structures without calyx and corolla, these are called cones.

Q 2. What are microsporangia and megasporangia?

Ans. Microsporangia are produced in male cone of Pinus, contain microspores. Megasporangia are present in female cone produce megaspores.

Q 3. Why ovules are naked in Pinus?

Ans. The female cone of Pinus produce ovules without ovary, so these are called naked ovules.

Q 4. Why there is no fruit formation in Pinus?

Ans. Because ovary is absent, so there is no fruit formation in Pinus.

Q 5. Give characters of male cone of Pinus?

Ans. The male cone of Pinus consists of microsporophylls, which have microsporangia, in which microspores are produced.