

PAPER-II PLANT EMBRYOLOGY

Max. Marks – 40+10*

Time- 3 Hrs.

Note: Attempt five questions in all, selecting two questions from each unit.

Question No. 1 is compulsory (short answer type).

Nine questions are to be set spread over the entire syllabus. All questions carry equal marks.

UNIT-I

Flower-a modified shoot; functions of various floral parts.

Microsporangium, its wall and dehiscence mechanism.

Microsporogenesis, pollen grains and its structure (pollen wall).

Pollen-pistil interaction; self incompatibility.

Pollination (types and agencies); pollen germination (microgametogenesis).

Male gametophyte.

UNIT-II

Structure of Megasporangium (ovule), its curvatures; Megasporogenesis and Megagametogenesis.

Female gametophyte (mono-, bi- and Tetrasporic).

Double fertilization.

Endosperm types and its biological importance.

Embryogenesis in Dicot and Monocot; polyembryony.

Structure of Dicot and Monocot seed.

Fruit types; dispersal mechanisms in fruits and seeds.