

D. B. G. GOVT. COLLEGE, PANIPAT

Session 2023-2024 (EVEN SEMESTER)

NAME OF PROFESSOR: Mr. Arvind Kumar

DESIGNATION: Assistant Professor in Botany

SUBJECT/PAPER: (Botany paper 1st .) Biology & Diversity of Seed Plant -II

CLASS- B.Sc. II (Medical)

SR. NO.	MONTH	TOPICS TO BE COVERED	REMARKS IF ANY
1.	1ST jan -15TH jan 16 jan – 31 Jan	Plant Taxonomy and Systematics, fundamental components of taxonomy (identification, classification, description, nomenclature and phylogeny). Role of chemotaxonomy, cytotaxonomy and taxometrics in relation to taxonomy. Botanical Nomenclature, principles and rules, principle of priority. Type concept, taxonomic ranks. Keys to identification of plants. Flower and Types of Inflorescence.	
2.	1 Feb to 15 Feb 16 Feb -29 Feb	Salient features of the systems of classification of angiosperms proposed by Bentham & Hooker and Engler & Prantl. Diversity of Flowering Plants: Diagnostic features and economic importance of the following families: Ranunculaceae, Brassicaceae, Malvaceae, Euphorbiaceae, Rutaceae, Leguminosae, Apiaceae, Asclepiadaceae, Lamiaceae, Solanaceae, Asteraceae, Liliaceae and Poaceae.	Assignment 1+Test

3.	1 Mar- 15 Mar	Dicot and Monocot seed, Fruit types; dispersal mechanisms in fruits and seeds. Botany Paper 2 nd – Plant Embryology Flower-a modified shoot; functions of various floral parts.	Assignment 2+ Test
	16 Mar-31 Mar	Microsporangium, its wall and dehiscence mechanism. Microsporogenesis, (23 rd march – 31 st march Holi vacations)	
4.	1Apr- 15 Apr	pollen grains and its structure (pollen wall). Pollen-pistil interaction; self incompatibility. Pollination (types and agencies); pollen germination (microgametogenesis). Male gametophyte. Structure of Megasporangium (ovule),	
	16 Apr – 30 Apr	Megasporogenesis & Megagametogenesis. Female gametophyte (mono-, bi- and Tetrasporic). Double fertilization. Endosperm types and its biological importance. Embryogenesis in Dicot and Monocot; polyembryony	

TWO ASSIGNMENTS AND ONE UNIT TEST WILL BE TAKEN AS PER SCHEDULE.

Signature of Assistant Professor