

Allotment of topics for BOTG_ SEM III_CC-3 (CELL BIOLOGY, GENETICS AND MICROBIOLOGY)- 2021

1. THEORY (BOT-G-CC-3-3-TH)

TEACHER	TOPICS TO BE COVERED
Dr. Anrini Majumder	<ol style="list-style-type: none"> 1. Central dogma 2. Transcription, 3. Translation 4. Mutation – Point Mutation (tautomerisation, transition, transversion, frameshift mutation), physical and chemical mutagens 5. Chromosomal aberrations- deletion, duplication, inversion, translocation. 6. Ultrastructure of nuclear envelope, nucleolus and their function 7. Molecular organisation of metaphase chromosome
Ms. Atreyee Banerjee	<ol style="list-style-type: none"> 1. Genetic code 2. Brief concept of split gene 3. Transposons 4. Microbiology
Md. Harun Al Rasid	<ol style="list-style-type: none"> 1. Aneuploidy and polyploidy 2. Linkage group and genetic map -

2. PRACTICAL (BOT-G-CC-3-3-P)

TEACHER	TOPICS TO BE COVERED
Dr. Anrini Majumder	<ol style="list-style-type: none"> 1. Cell biology: staining and squash preparation of onion root tip, study of mitotic stages, determination of MI 2. Identification of different mitotic and meiotic stages with reasons
Ms. Atreyee Banerjee	<ol style="list-style-type: none"> 1. Microbiology: gram staining 2. Identification of different forms of bacteria with reasons

3. ALLOTMENT OF TOPICS FOR SEC A (PLANT BREEDING AND BIOMETRY) (BOT-G-SEC-A-3/5-1) -2021

TEACHER	TOPICS TO BE COVERED
Md. Harun Al Rasid	<ol style="list-style-type: none"> 1. Plant breeding: <ol style="list-style-type: none"> a. Introduction and objective; b. Techniques of hybridisation c. Heterosis and hybrid seed production - d. Role of mutation, polyploidy, distant hybridisation and role of biotechnology in crop improvement
Ms. Atreyee Banerjee	<ol style="list-style-type: none"> 1. Mass and pure line selection: 2.1 Procedure 2.2 Advantages and limitations 2. Biometry

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 28/8/21

1. Allotment of topics for BOTG_ SEM II_CC-2 (PTERIDOPHYTES, PALAEOBOTANY, GYMNASPERMS, MORPHOLOGY AND TAXONOMY) (BOT-G-CC-2-2-TH) -2022

TEACHER	TOPICS TO BE COVERED
Dr. Anrini Majumder	<ol style="list-style-type: none"> Pteridophytes: diagnostic characters and examples of Psilophyta, Lycophyta, Sphenophyta, Filicophyta; life histories of <i>Sellaginella</i>, <i>Pteris</i>; economic importance Palaeobotany: fossils, fossilization process and factors; importance of fossil study; geological time scale Palynology: definition, spores, pollens and applications Angiosperm morphology: inflorescence types with examples; fruits and seeds
Ms. Atreyee Banerjee	<ol style="list-style-type: none"> Gymnosperms: Progymnosperms; diagnostic characters and examples of Cycadophyta, Coniferophyta, Gnetophyta; life histories of <i>Cycas</i>, <i>Pinus</i>; <i>Williamsonia</i> (reconstructed); economic importance Taxonomy of angiosperms: artificial, natural and phylogenetic systems of classification; diagnostic characters of dicot and monocot families mentioned in syllabus Angiosperm morphology: flower

2. PRACTICAL- BOT-G-CC-2-2-P:

TEACHER	TOPICS TO BE COVERED
Dr. Anrini Majumder	<ol style="list-style-type: none"> Identification with reasons: macroscopic specimens of <i>Selaginella</i>, <i>Pteris</i>, male and female strobilus of <i>Cyca</i>, <i>Pinus</i>, Anatomical slides as mentioned in the syllabus, inflorescence types
Ms. Atreyee Banerjee	<ol style="list-style-type: none"> Dissection, drawing, labelling, description of angiospermic plants and floral parts, floral formulae, and diagram, identification of angiospermic families as mentioned in the syllabus Spot identification of angiospermic plants as mentioned in the syllabus

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