



# HOLY CROSS COLLEGE

ACCREDITED BY NAAC WITH 'A+' GRADE (CYCLE:2)

Tripura University Reg. Code: 17

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"Educating hearts and minds"

## DEPARTMENT OF BOTANY

No.F.1/HCC/BOT/Std./May./2024/03

Date: 06.05.2024

### Notice

Internal Examination Syllabus (May, 2024) for 2<sup>nd</sup> (NEP), 4<sup>th</sup> & 6<sup>th</sup> Semester Botany Major, Minor, Honours & General are as follows:

<b>2nd Semester- Major (NEP)</b>	
<b><u>2nd Semester Major: Paper 3 (Theory): BT 103C</u></b>	
<ul style="list-style-type: none"><li>▪ <b>Unit I:</b> <i>Riccia</i> sp. and <i>Marchantia</i> sp.: External &amp; internal structure: sporophytic &amp; gametophytic structure and life cycle.</li><li>▪ <b>Unit II:</b> General Characters of pteridophytes: Type genus- <i>Lycopodium</i>.</li><li>▪ <b>Unit III:</b> <i>Cycas</i> sp. -Life Cycle (Morphology, Anatomy, Reproduction).</li><li>▪ <b>Unit IV:</b> Significant contributions of Indian Paleobotanist: Dr. Birbal Sahani, Definition of fossil, Conditions required for fossilisation, fossilisation process, Types of fossil (Body fossil - Micro- and Megafossils, Trace fossil, Chemical fossil, Index fossil), Modes of preservation (after Schopf, 1975).</li></ul>	
<b><u>2nd Semester Major: Paper 4A (Theory): BT 104C</u></b> <ul style="list-style-type: none"><li>▪ Indian Gondwana flora system – Three fold division with major mega-fossil assemblages.</li></ul>	<b><u>2nd Semester Major: Paper 4B (Practical): 104C</u></b> <ul style="list-style-type: none"><li>▪ Workout- <i>Lycopodium</i> sp. &amp; <i>Selaginella</i> sp.</li><li>▪ Identification.</li><li>▪ Practical Note Book Submission.</li></ul>
<b>2nd Semester- Minor (NEP)</b>	
<b><u>2nd Semester Minor: Paper 2A (Theory): BT 102M</u></b> <ul style="list-style-type: none"><li>▪ <b>Unit I:</b> <i>Riccia</i> and <i>Marchantia</i>: External &amp; internal structure: sporophytic &amp; gametophytic structure and life cycle.</li><li>▪ <b>Unit II:</b> General Characters of pteridophytes: Type genus- <i>Lycopodium</i>.</li><li>▪ <b>Unit III:</b> <i>Cycas</i> sp. -Life Cycle (Morphology, Anatomy, Reproduction).</li></ul>	<b><u>2nd Semester Minor: Paper 2B (Practical): BT 102M</u></b> <ul style="list-style-type: none"><li>▪ Workout- <i>Pteris</i> sp. &amp; <i>Selaginella</i> sp.</li><li>▪ Identification.</li><li>▪ Practical Note Book Submission.</li></ul>



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<ul style="list-style-type: none"><li>▪ <b>Unit IV:</b> Definition of fossil, Conditions required for fossilisation, fossilisation process, Types of fossil (Body fossil- Micro- and Mega-fossils, Trace fossil, Chemical fossil, Index fossil.</li></ul>	
<b>4th Semester (Honours)</b>	
<b>4th Semester (Honours) - Theory</b> <ul style="list-style-type: none"><li>❖ <b>Unit I:</b> Inflorescence, adhesion cohesion flower types, Fruit, Micro and megasporogenesis, Micro and mega gametogenesis, Endosperm Development, Embryo Development.</li><li>❖ <b>Unit II:</b> Meristematic and Permanent tissue, Habitat and Niche, Ecological Succession, Vegetation of Tripura.</li></ul>	<b>4th Semester (Honours) - Practical</b> <ul style="list-style-type: none"><li>❖ Identification- Different forms of Placentation &amp; Fruits.</li><li>❖ Practical Note Book Submission.</li></ul>
<b>4th Semester (General)</b>	
<b>4th Semester (General) – Theory</b> <ul style="list-style-type: none"><li>❖ <b>Unit I:</b> Inflorescence, adhesion cohesion flower types, Fruit</li><li>❖ <b>Unit II:</b> Meristematic and Permanent Tissue, Habitat and Niche, Ecological Succession, Vegetation of Tripura.</li></ul>	<b>4th Semester (General) - Practical</b> <ul style="list-style-type: none"><li>❖ Identification- Different forms of Placentation &amp; Fruits.</li><li>❖ Practical Note Book Submission.</li></ul>
<b>6th Semester (Honours)</b>	
<b>6th Semester (Honours) – Theory</b> <ul style="list-style-type: none"><li>• <b>Unit I:</b> Protein &amp; Lipid.</li><li>• <b>Unit II:</b> Photosynthesis.</li><li>• <b>Unit III:</b> Classification of crude drug, Importance of Pharmacognosy, Alkaloids.</li><li>• <b>Unit IV:</b> Totipotency, Callus Culture.</li></ul>	<b>6th Semester (Honours) - Practical</b> <ul style="list-style-type: none"><li>• All Plant Physiology Experiments.</li><li>• Biochemistry.</li><li>• Practical Note Book Submission.</li></ul>

*DR*  
06/05/2024

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Agartala