**Question paper – I**

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| **University of Kerala** | | |
| Discipline: **BOTANY** |  | Time: 1Hour 30 Minutes (90 Mins.) |
| Course Code: **UK1DSCBOT 103** |  | Total Marks: 42 |
| Course Title: **FUNDAMENTALS AND SCOPE OF BOTANY** |  |  |
| Type of Course: DSC (with Practical) |  |  |
| Semester:1 |  |  |
| Academic Level: 100 - 199 |  |  |
| Total Credit: 4, Theory: 3 Credit, Practical: 1 Credit |  |  |

**Part A. 6 Marks. Time: 6 Minutes**

**Objective Type. 1 Mark Each. Answer All Questions**

**(Cognitive Level: Remember /Understand)**

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| **Qn. No.** | **Question** | **Cognitive**  **Level** | **Course**  **Outcome (CO)** |
| 1. | What is Bryology? | Remember | CO - 2 |
| 2. | Who is the father of Botany? | Remember | CO - 3 |
| 3. | Explain the geological time scale. | Understand | CO - 1 |
| 4. | What is aggregate fruit? | Understand | CO - 3 |
| 5. | Who was the first female botanist in India? | Understand | CO - 4 |
| 6. | Describe the composition and role of F.A.A. in plant tissue preservation. | Understand | CO - 4 |

**Part B. 8 Marks. Time: 24 Minutes**

**Short Answer. 2 Marks Each. Answer All Questions**

**(Cognitive Level: Understand /Apply)**

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| **Qn.**  **No.** | **Question** | **Cognitive**  **Level** | **Course**  **Outcome (CO)** |
| 7. | Describe the contributions of MOP Iyyenkar in the field of phycology. | Understand | CO - 3 |
| 8. | Summarize the characteristics of simple and compound leaves. | Understand | CO - 4 |
| 9. | Discuss the different methods used in the process of staining plant tissues. | Apply | CO - 4 |
| 10. | What are fixatives? Discuss their role in preserving plant tissues. | Apply | CO - 4 |

**Part C. 28 Marks. Time: 60 Minutes**

**Long Answer. 7 marks each. Answer all 4 Questions, choosing among options within each question.**

**(Cognitive Level: Apply/Analyse/Evaluate/Create)**

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| **Qn.**  **No.** | **Question** | **Cognitive**  **Level** | **Course**  **Outcome (CO)** |
| 11. | What are the steps involved in the preparation of the Herbarium? Discuss the importance of herbarium collections in botanical research.  or  Explain the workings of a compound microscope and its key components. | Apply | CO – 4  CO - 4 |
| 12. | Analyze the differences between a simple and compound microscope in terms of their optical system and use.  or  Differentiate Cyathium and Hypanthodium with the help of diagrams. | Analyze | CO – 4  CO - 4 |
| 13. | Briefly explain the contributions of two Indian Botanists.  or  Evaluate the importance of Safranine and Acetocarmine in plant tissue staining. | Evaluate | CO – 3  CO - 4 |
| 14. | Explains the different types of inflorescence with examples.  Or  Draw a diagram showing the parts of a flower and explain the different types of symmetry | Create | CO – 5  CO - 4 |

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| **Cognitive Level** | **Marks** | **Percentage** |  | **Course Outcomes** | **Marks** | **Percentage** |
| Remember | 2 | 4.8 |  |  |  |  |
| Understand | 8 | 19.0 |  |  |  |  |
| Apply | 11 | 26.2 |  |  |  |  |
| Analyse | 7 | 16.7 |  |  |  |  |
| Evaluate | 7 | 16.7 |  |  |  |  |
| Create | 7 | 16.7 |  |  |  |  |
| **TOTAL** | **42** | **100** |  | **TOTAL** | **42** | **100** |