

Your Roll No _____

Sr. No. of Question Paper : 5306

Unique paper code : 2164001205

Name of the Paper : Exploring Nature through Lens

Name of the Course : Botany: GE

Semester : II

Duration: 2 Hours

Maximum Marks: 60

Instructions for Candidates

1. Write your **Roll No. on the top immediately** on receipt of this question paper.
2. Attempt **four** questions in all.
3. Question number **one is compulsory**
4. Attempt **all parts** of a question **together**

Q1. Answer the following questions

15

(a) Expand the following (any five)

(1X5 = 5)

- (i) SEM
- (ii) DPI
- (iii) SLR
- (iv) ISO
- (v) FAA
- (vi) PPI
- (vii) CCD

(b) Match the following (any five):

(1 × 5 = 5)

(i) Filamentous algae	a) <i>Spirogyra</i>
(ii) Fast Shutter Speed (e.g. 1/1000s)	b) Greater depth of field, less light enters
(iii) Narrow Aperture (e.g. f/16)	c) Ocular and stage micrometer
(iv) Cell size	d) <i>Chlamydomonas</i>
(v) Condenser	e) Freezes motion
(vi) Unicellular algae	f) Focuses light onto the specimen

(c) Define (any five):

(1 × 5 = 5)

- (i) Resolving Power
- (ii) Depth of Field
- (iii) Aspect ratio
- (iv) Aesthetics
- (v) Photo gallery
- (vi) Biodiversity

Q2. Differentiate between the following (any three)

(5X3 =15)

- a) High ISO and Low ISO settings.
- b) Camera settings in portrait shot and landscape shot.
- c) Light microscopy and Electron microscopy.
- d) Xerophytic adaptations and Hydrophytic adaptations.
- e) Camera settings in capturing sports and camera settings capturing waterfall.

Q3. Write short notes on following (any three)

(5X3 =15)

- (i) Different parts and function of a professional camera
- (ii) Ecological Interactions
- (iii) Sample preparation for microscopy
- (iv) Micrometry
- (v) General characteristic features of various plant life forms

Q4. Discuss in detail

15

- (a) What is the role of photography in promoting eco-tourism and shaping ecological discussions? 8
- (b) Discuss the role of various plant pigments in enhancing the aesthetic appeal. In your answer, explain the types of pigments, how they contribute to colour variations, and the overall impact these pigments have on visual appeal. 7

Q5. Answer following questions

15

- (a) Explain the working principles of a camera, focusing on exposure, shutter speed, and aperture, and their effects on image capture. 8
- (i) Discuss the role of photography in promoting environmental awareness and education. 7