

[This question paper contains 2 printed pages.]

Your Roll No.....

Sr. No. of Question Paper : 6472

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Unique Paper Code : 2164001205

Name of the Paper : Viewing and Capturing Diversity in Nature

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 any **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) CCD
- (ii) DSLR
- (iii) ISO
- (iv) PPI
- (v) DPI
- (vi) FAA

(b) Match the following (**any five**):

(1 × 5 = 5)

|                                      |                                |
|--------------------------------------|--------------------------------|
| (i) Filamentous form                 | a) <i>Volvox</i>               |
| (ii) Slow Shutter Speed (e.g. 1/10s) | b) Ocular and Stage micrometer |
| (iii) Wide Aperture (e.g. f/2.5)     | c) Hemocytometer               |
| (iv) Cell number                     | d) <i>Spirogyra</i>            |
| (v) Cell size                        | e) Blurs motion                |
| (vi) Filamentous form                | f) Bokeh effect                |

(c) Fill in the blanks (**any five**)

- (i) The opening in a lens that controls how much light enters the camera is known as the \_\_\_\_\_.

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- (ii) In basic composition, placing the main subject along imaginary lines that divide the frame into thirds is known as the rule of \_\_\_\_\_.
- (iii) To reduce camera shake and achieve sharper images in low light landscapes, photographers commonly use a \_\_\_\_\_.
- (iv) In light microscopy, the ability to distinguish two closely spaced points as separate entities is primarily known as \_\_\_\_\_.
- (v) When preparing a biological specimen for light microscopy, the main purpose of staining is to enhance \_\_\_\_\_ between different cellular components.
- (vi) Protected areas that allow sustainable tourism while aiming to conserve biodiversity and support local communities are best described as promoting \_\_\_\_\_.

**Q2. Differentiate between the following (any three)**

**(5X3 =15)**

- a) High ISO and Low ISO settings.
- b) Camera settings in a sports event and camera settings for capturing a waterfall.
- c) Dissection microscope and Compound microscope.
- d) Unicellular and multicellular forms of plants.

**Q3. Write short notes on the following (any three)**

**(5X3 =15)**

- (i) Different parts and functions 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) Write down the general characteristics of Xerophytic and hydrophytic plants. 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) Write a brief note about different types of cameras, and also discuss any three rules for composition and framing. 8
- (i) Discuss the role of photography in promoting ecotourism. 7