

C 42003

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Name.....

Reg. No.....

**FOURTH SEMESTER M.Sc. DEGREE (REGULAR/SUPPLEMENTARY)  
EXAMINATION, APRIL 2023  
(CBCSS)**

Forensic Science

FSC 4E 28—FORENSIC PHOTOGRAPHY AND BIOMETRICS

(2020 Admission onwards)

Time : Three Hours

Maximum : 30 Weightage

**Section A**

*Answer any four questions.  
Each question carries 2 weightage.*

1. What are the wavelengths of violet and red colours ?
2. Define band pass filter.
3. How does a digital camera work ?
4. What type of lighting technique is used in photomicrography ?
5. What is 'Natural Perspective' ?
6. How does verification differ from identification ?
7. What constitutes gait line ?

(4 × 2 = 8 weightage)

**Section B**

*Answer any four questions.  
Each question carries 3 weightage.*

8. Why fish eye lenses are unsuitable for forensic photography ?
9. List the advantages of CCD sensor over CMOS.
10. Videos captured in high-speed cameras, when played at regular speed looks slow. Explain.
11. Explain the use of IR light in forensics.
12. What are the features of ideal biometric system ?

**Turn over**

13. Explain the process of photogrammetry.
14. What all factors can be determined using gait analysis ?

(4 × 3 = 12 weightage)

### Section C

*Answer any **two** questions.  
Each question carries 5 weightage.*

15. What kind of effect does the size of silver halide crystal have on an image ?
16. Mention and describe the types of forensic image analysis.
17. Differentiate iris scan from retinal scan.
18. Identify and describe the working mechanism of this optical trans-body imaging.

(2 × 5 = 10 weightage)