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NA—97—2023

FACULTY OF SCIENCE AND TECHNOLOGY

B.Sc. (Third Year) (Sixth Semester) EXAMINATION

NOVEMBER/DECEMBER, 2023

(CBCS/New Pattern)

COMPUTER APPLICATION

Paper XIV

(Digital Image Processing)

(Wednesday, 20-12-2023)

Time : 10.00 a.m. to 12.00 noon

Time—Two Hours

Maximum Marks—40

N.B. :— (i) Attempt All questions.

(ii) Figures to the right indicate full marks.

1. What is image processing ? Explain human visual system and different types of images. 15

Or

(a) Explain the periodic sequence in image processing. 8

(b) Describe 2D digital filter technique. 7

2. Explain 2D convolution through matrix analysis and different application circular convolution. 15

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(2)

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Or

- (a) Explain different types of Fourier transformation. 8
- (b) Describe classification of image restoration. 7
3. Write short notes on (any *two*): 10
- (a) Image file format
- (b) 2D signals
- (c) 2D correlation
- (d) Types of image blur.

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