



ELECTIVE - II
Digital Image Processing
(New) (1312)

P. Pages : 2

Time : Three Hours

Max. Marks : 100

Instructions to Candidates :

1. Do not write anything on question paper except Seat No.
2. Answer sheet should be written with blue ink only. Graph or diagram should be drawn with the same pen being used for writing paper or black HB pencil.
3. Students should note, no supplement will be provided.
4. All the questions are compulsory and solve **any two** from each.
5. Figure to the right indicate full marks.
6. Non programmable electronic calculators is allowed.
7. Assume suitable data if necessary.

UNIT - I

1. a) Explain with block diagram, fundamental steps in digital image processing. **10**
- b) Explain image sensing and acquisition in details. **10**
- c) Explain fix adjacency, mix adjacency, connectivity, region and Boundaries. **10**

UNIT - II

2. a) What is histogram ? Explain histogram equilization in details. **10**
- b) Explain image enhancement using logical and arithmetic operations. **10**
- c) Explain the use of second derivative for image enhancement. **10**

UNIT - III

3. a) Explain image compression model and compression process. **10**

- b) Explain run length coding technique with example. 10
- c) Explain the lossless predictive coding. 10

UNIT – IV

4. a) What is image restoration. 10
- b) Discuss in detail geometries transformation and geometric mean filter. 10
 - c) Explain pseudo color image processing. 10

UNIT – V

5. a) Explain region growing and splitting. 10
- b) Explain edge linking and boundary detection. 10
 - c) Explain global thresholding. 10
