



**ELECTIVE - I**  
**Image Processing**  
**(New) (1213)**

**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. Attempt **any two** questions from each unit.
5. Assume suitable data if necessary.
6. Draw suitable diagram wherever necessary.

**UNIT – I**

1. Explain components of Image processing. **10**
2. Write & explain Histogram Matching (specification). **10**
3. Discuss Basics of spatial filtering. **10**

**UNIT – II**

4. Write Fourier transform and frequency domain. **10**
5. Explain Homomorphic filtering with neat diagram. **10**
6. Write correlation theorem. **10**

**UNIT – III**

7. Write model of Image Degradation or Restoration Process. **10**
8. Write Inverse filtering. **10**
9. Explain & discuss lossy compression. **10**

**UNIT – IV**

10. Explain color fundamental with neat diagram. **10**

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|------------|------------------------------|---------------|
| <b>11.</b> | Write :                      | <b>10</b>     |
| a)         | Dialation                    | b) Erosion    |
| c)         | Thining                      | d) Thickening |
| <b>12.</b> | Discuss about color slicing. | <b>10</b>     |

## UNIT – V

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|------------|--|-----------|
| <b>13.</b> | Explain need of segmentation and type of segmentation. | <b>10</b> |
| <b>14.</b> | list applications of Image processing.                 | <b>10</b> |
| <b>15.</b> | Write Histogram analysis.                              | <b>10</b> |

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