

Master of Computer Application (MCA)-II (CBCS Pattern) Fourth Semester CBCS
PSMCAT404.2-Elective-II-Paper-IV : Image Processing

P. Pages : 2

Time : Three Hours



GUG/W/18/11115

Max. Marks : 80

- Notes :
1. All question are compulsory and carry equal marks.
 2. Draw neat and labelled diagram and use supporting data wherever necessary.
 3. Avoid Vague answer and write specific answer related to question.

- 1.** Either
- a) Explain fundamental steps in Digital Image processing. **8**
 - b) Explain components of an Image processing system. **8**

OR

- c) Explain the terms. **8**
 - 1) Image sampling.
 - 2) Quantization.
- d) Explain the elements of visual perception. **8**

- 2.** Either
- a) What is two dimensional Discrete Fourier transform. **8**
 - b) What is two dimensional orthogonal & Unitary transforms? Explain. **8**

OR

- c) Explain the terms. **8**
 - 1) KL transform.
 - 2) Slant transform.
- d) What is Hadamard transform & Explain. **8**

- 3.**
- a) What is Image Enhancement in spatial domain? **8**
 - b) What is Gray level transformation? Explain. **8**

OR

- c) What is homomorphic filtering? **8**
- d) What is Histogram processing? Explain. **8**

4. Either
- a) What is noise models? Explain. 8
 - b) What is minimum mean square error filtering? 8
- OR**
- c) What is color models? Explain. 8
 - d) Explain processing basics of full color image processing? 8
5. Solve all the questions.
- a) What is pixels? Explain in short. 4
 - b) What is Haar transform? Discuss in brief. 4
 - c) What is frequency domain filters. 4
 - d) Explain pseudo color image processing. 4
