Roll No. | | | | | | | | | | | | Total No. of Pages : 02

Total No. of Questions : 09

B.Tech. (CSE) (Sem.–6)

DIGITAL IMAGE PROCESSING

Subject Code : BTCS-610-18

M.Code : 79253

Date of Examination : 16-07-22

Time : 3 Hrs. Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. **SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.**
2. **SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.**
3. **SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.**

SECTION-A

1. Write briefly :

a. What is image acquisition?

b. What is the advantage of color in image processing applications?

c. What is the image enhancement?

d. What is the significance of color model?

e. What is log transformation? How it is useful in image processing?

f. List down the limitations of Huffman coding.

g. Define Thresholding with the help of example.

h. What do you mean by grey scale image?

i. What is meant by pixel depth?

j. What are boundary descriptors?

SECTION-B

2. Explain the components of digital image processing.

3. Discuss some basic relationships between pixels.

4. Describe :

   a) Butterworth low pass filter

   b) Gaussian low pass Filter.

5. Explain model of Image degradation/restoration process.

6. Explain inverse filtering with example.

SECTION-C

7. a) How can you control over segmentation problem?

   b) What is the role of image histogram in digital image processing?

8. Explain various methods for detection of discontinuities.

9. What is the role of compression? Describe predictive coding with example.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.