

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -2 EXAMINATION- Oct 2019

B.Tech VIII Semester

COURSE CODE: 10B1WCI737

MAX. MARKS:25

COURSE NAME: IMAGE PROCESSING TECHNIQUES

COURSE CREDITS: 3

MAX. TIME: 1:30 Hr

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*Note: All questions are compulsory. Carrying of mobile phone during examinations will be treated as case of unfair means.*

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**Q1** Explain the process of image acquisition using sensors **[3] [CO1]**

**Q2.** What is the role of image histogram in digital image processing? **[3] [CO2]**  
Explain histogram equalization algorithm

**Q3** Discuss detection of points and lines in image with details of mask used for detection **[5] [CO6]**

**Q4** What is edge detection? Explain use of gradient operators to find out discontinuities. **[3] [CO3]**

**Q5** What is Segmentation? Explain thresholding concept of Image segmentation in details **[3] [CO2]**

**Q6** Explain the following and give an application **[8] [CO6]**

- a) Image subtraction
- b) Image Averaging
- c) Power-Law (Gamma) transformation.
- d) Smoothing filters