JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST-2 EXAMINATION OCTOBER 2018   *Nitin Kr.*

B.Tech VIIth Semester

COURSE CODE: 10B1WCI737   MAX. MARKS: 25

COURSE NAME: IMAGE PROCESSING TECHNIQUES

COURSE CREDITS: 03   MAX. TIME: 1.5 Hrs

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

1) a) How many different shades of gray are there in a color RGB system in which each RGB image is an 8-bit image? [2]

   b) Discuss the various color models used for representing color images? [3]

2) Write a short note on the following:

   a) Region-Based Segmentation

   b) Thresholding

   c) Canny edge detector

   [2*3]

3) a) Explain the effect of aliasing in digital images. [2]

   b) Discuss the various image smoothing filters in frequency domain with their applications. [3]

4) a) Explain the various filters used for the restoration of images in presence of noise? [3]

   b) Differentiate between the concept of image enhancement and image restoration with an example in detail. [2]

5) What segmentation procedure you will use to segment apples passing through a conveyor belt so that the segments can be used to classify it into one of the apple categories? [4]