JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -3 EXAMINATION- 2021

COURSE CODE: 18B1WCI840   MAX. MARKS: 35

COURSE NAME: Computer Vision

COURSE CREDITS: 3   MAX. TIME: 2 Hrs.

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

Q1.

i) Explain in short different types of machine learning approach in computer vision? [3]

ii) What is the memory required to store a 512*512 RGB image of 8 bit resolution? [3]

iii) Discuss the most commonly used distance measures in image processing? [3]

iv) List and explain the various activation functions. Also explain their suitability with respect to applications. [3]

v) Write a cost function which can be used for PCA. [3]

vi) Discuss a neural network model for energy minimization in a texture classification problem. [5]

vii) Discuss adaptive filtering technique in single layer perceptron with its algorithm. [5]

viii) Explain the difference between pattern clustering and feature mapping in objective patterns. [5]

ix) Explain image gradient and gradient operators for edge detection. [5]