

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -1 EXAMINATION- MARCH-2023

COURSE CODE(CREDITS): 22M11CI212(3)

MAX. MARKS: 15

COURSE NAME: Deep Learning Techniques

COURSE INSTRUCTORS: Dr. Abhilasha Sharma

MAX. TIME: 1 Hour

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*Note: All questions are compulsory. Marks are indicated against each question in square brackets.*

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- Q 1) a) Explain the Gradient Decent Algorithm. How gradient decent can be used to update weights in Artificial Neural Networks (ANN). [2] (CO2)
- b) What is Perceptrons? Explain hypothesis function for Perceptrons. [2] (CO2)
- c) Design a two layer network of Perceptrons to implement the Boolean function A XOR B, where A and B are two boolean variables. [2] (CO2)
- Q 2) a) Elaborate the differences between machine learning and deep learning. [2] (CO1)
- b) Explain the key requirements in designing deep learning applications. [2] (CO1)
- c) Why deep learning algorithms are preferred for big data? [1] (CO1)
- Q 3) a) Explain the architecture of ANN. How back propagation algorithm is used for training in ANN? [2] (CO2)
- b) Describe the role of activation function in artificial neural networks. [1] (CO2)
- c) How does noisy data affect the performance of neural networks? [1] (CO2)