## FACULTY OF SCIENCE B.Sc. (CBCS) III-Year (VI-Semester) Regular Examinations, June-2023 Data Science-VI (B) Deep Learning

Time: 3 Hours

Max Marks: 80

<u>SECTION-A</u>

(4x5=20 Marks)

Answer any Four questions from the following

- 1. Explain how to manipulate Tensors in numpy.
- 2. Write about Broadcasting.
- 3. Write about Gradient Base Optimization.
- 4. Explain about Theano Library.
- 5. Write about Loss Functions and Optimizers.
- 6. Write about Scalars (OD Tensors)

## SECTION-B

(4x15=60 Marks)

Answer all the following questions

7. (a) Explain about Time series data and Vector data.

(OR)

- (b) What are Key attributes. Explain about 3D Tensors and High Dimensional Tensors?
- 8. (a) Explain in detail about Tensor Operations.

(OR)

- (b) Explain about the Geometrical representation of Deep Learning.
- 9. (a) Explain about the Back Propagation algorithm.

(OR)

- (b) Explain about Stochastic Gradient Descent.
- 10. (a) Explain about LSTM and GRU Layers.

(OR)

(b) Explain about Recurrent Layers in Keras.