

Seat No. **MAR_APR 2025 SUMMER EXAMINATION****11731 Bachelor of Technology (NEP-2.0)****Sub. Name: Deep Learning****Sub. Code: 67826/84720/84986****Day and Date: MAY ,19-05-2025****Total Marks: 70****Time: 10:30 AM To 01:00 PM**

- Instructions:**
1. All questions are compulsory
 2. Assume suitable data wherever necessary and mention it boldly
 3. Draw neat labelled diagrams wherever necessary
 4. Figures to the right indicate full marks

- Q1) Solve any 2 questions of the following (7 Marks Each) [14]**
- a. Explain in detail about neural network? [7]
 - b. Explain the Tensor math with example. [7]
 - c. What are the differences between CNN and RNN? [7]
- Q2) Solve any 2 questions of the following (7 Marks Each) [14]**
- a. What is a tensor and how does it represent data? [7]
 - b. What is overfitting and underfitting and how to combat them? [7]
 - c. What are different steps for training ConvNet from scratch on small dataset? [7]
- Q3) Solve any 2 questions of the following (7 Marks Each) [14]**
- a. Explain the GRU with diagram. [7]
 - b. Explain Keras callbacks with suitable example [7]
 - c. Explain Variational autoencoders in detail? [7]
- Q4) Solve any 2 questions of the following (7 Marks Each) [14]**
- a. Explain word embedding with one example? [7]
 - b. Explain what are the advantages and disadvantages of sequential model. [7]
 - c. How do neural networks generate text? What is the use of neural style transfer? [7]
- Q5) Solve any 2 questions of the following (7 Marks Each) [14]**

- a. Explain in short the terms AI, ML, and DL [7]
- b. Explain Feature extraction & fine tuning. [7]
- c. Explain in detail about generative adversarial network. [7]

End Of Question Paper

Important Note for Chief Exam Officer / SRPD Coordinator / Sr Supervisor/ Student -

This Question Paper may be distributed for following Subjects as common code.

सदरची प्रश्नपत्रिका खालील विषयांकरिता वितरित करता येईल.

- 1] (101) Bachelor of Engineering (84986) Deep Learning Part 4 SEM 8
- 2] (101) Bachelor of Engineering (67826) Real Time Operating System Part 4 SEM 8
- 3] (1154) B.Tech. CBCS (84720) Deep Learning Part 4 SEM 8