VISHNU INSTITUTE OF TECHNOLOGY (AUTONOMOUS)D:\exam01\logo_red.png

VISHNUPUR: BHIMAVARAM

Mid – II Examinations

**Deep Learning**

BRANCH : AI&DS,AIML DATE:

YEAR/SEM : III B. Tech. II Sem. TIME:

Max. Marks: 30

| 1. |  | Illustrate variants of basic convolution function in detail. Any 2 convolution functions | L2 | CO3 | [6M] |
| --- | --- | --- | --- | --- | --- |
|  |  | (or) |  |  |  |
| 2. |  | Build a convolutional neural network for image classification | L2 | CO3 | [6M] |
| 3. | a) | List the applications of Recurrent neural network. | L1 | CO3 | [6M] |
|  | b) | Explain the concept of Back Propagation with time in RNN | L2 | CO3 | [6M] |
|  |  | (or) |  |  |  |
| 4. |  | Build a Recurrent neural network for text classification problem. | L3 | CO3 | [12M] |
| 5 | a) | What are the advantages of Torch over TensorFlow tool | L2 | CO4 | [4M] |
|  | b) | Explain the concept of Computer Vision and its applications. | L1 | CO4 | [8M] |
|  |  | (or) |  |  |  |
| 6 |  | Describe any one problem on Natural Language Processing domain and provide asolution using LSTM. | L3 | CO4 | [12M] |

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| 1. |  | Explain the concept of pooling. What is the importance of pooling in Convolutional Neural Networks? Determine the shape of output matrix of an image of size 19 x 19 that uses a 3 padding size 2, stride size 2, and a 5 x 5 filter | L3 | CO3 | [6M] |
| --- | --- | --- | --- | --- | --- |
|  |  | (or) |  |  |  |
| 2. |  | Explain the concept of pooling in detail | L2 | CO3 | [6M] |
| 3. |  | Explain Recurrent neural network in details.Explain the problems with Simple RNN. | L2 | CO3 | [12M] |
|  |  | (or) |  |  |  |
| 4. |  | Describe the concept of Long Short-Term Memory Networks. | L2 | CO3 | [12M] |
| 5 | a) | Explain about Object recognition in detail. Applications of object recognition. | L3 | CO4 | [6M] |
|  | b) | Describe the characteristics of Torch in detail. | L1 | CO4 | [6M] |
|  |  | (or) |  |  |  |
| 6 | a) | What are the applications of Natural language processing. | L1 | CO4 | [6M] |
|  | b) | Describe the TensorFlow tool in detail | L2 | CO4 | [6M] |