| Tota        | l No       | o. of Questions : 8] SEAT No. :   |            |
|-------------|------------|---|------------|
| PB2257      |            | 57 [6263]-95 [Total No. of Page   | es: 2      |
|             |            | B.E. (Computer Engineering)   |            |
|             |            | DEEP LEARNING   |            |
|             |            | (2019 Pattern) (Semester - VIII) (410251)                                     |            |
|             |            | (2019 1 altern) (Semester - VIII) (410231)                                    |            |
|             |            | [Max. Marks]  | : 70       |
|             | исп<br>1)  | ions to the candidates: Solve Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6, Q.7 or Q.8. |            |
|             | <i>2</i> ) | Figures to the right indicate full marks.                                     |            |
|             | <i>3</i> ) | Neat diagrams must be drawn whenever necessary.                               |            |
|             | <i>4</i> ) | Make squable assumption whenever necessary.                                   |            |
|             |            |   |            |
| <b>Q</b> 1) | a)         | Explain CNN architecture with its application.                                | [6]        |
|             | b)         | What is Padding? Enlist and explain types of padding.                         | [6]        |
|             | c)         | Explain Dropout Layer in Convolutional Neural Network.                        | [6]        |
|             |            | OR  |            |
| <b>Q</b> 2) | a)         | Define ReLU. Explain disadvantages of ReLU.                                   | [6]        |
|             | b)         | What is Strides in CNN? Explain in brief.                                     | <b>[6]</b> |
|             | c)         | Explain Pooling Layer with its different types.                               | <b>[6]</b> |
|             |            |   |            |
| <b>Q</b> 3) | a)         | Explain RNN with its types.   | [6]        |
|             | b)         | Explain in brief Encoder Decoder architecture.                                | [6]        |
|             | c)         | Explain Different types of Deep Learning.                                     | [5]        |
|             |            | OR S  | -          |
| <b>Q4</b> ) | a)         | WSN on Performance Matrices.  | [6]        |
|             | b)         | Compare implicit and explicit memory.   | [6]        |
|             | c)         | What are default baseline models? Explain in brief.                           | [5]        |

What is Boltzmann machine? Explain its objectives.

Write short Note on Deep generative model and a solution. Write short Note on Deep generative model and Deep Belief Networks.

[6]

OR

P.T.O. c)

**[6] [6]** 

Q5) a)

b)

| <b>Q6</b> ) | a)      | Define Boltzmann machine? State and Explain its types.   | [6]          |
|-------------|---------|--|--------------|
|             | b)      | Explain Discriminator network.   | <b>[6]</b>   |
|             | c)      | Enlist and Explain applications of GAN.  | [6]          |
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| <i>Q7</i> ) | a)      | What is Reinforcement Learning? State and explain its advantages a   |              |
|             | 1. \    | disadvantages.   | [6]          |
|             | b)      | What are different types of Reinforcement Learning? Explain in brief.  |              |
|             | c)      | Compare Active and Passive Reinforcement Learning.   | [5]          |
|             |         | OR   |              |
| <i>Q8</i> ) | a)      | Write short note on Deep Q-Learning.   | [6]          |
| 20)         | b)      | What are different characteristics of Reinforcement Learning?  | [6]          |
|             | c)      | Explain in detail Dynamic programming algorithms for reinforcem  |              |
|             | -)      | learning.  | [ <b>5</b> ] |
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