Seat No.: _____          Enrolment No._____

# GUJARAT TECHNOLOGICAL UNIVERSITY
## MCA INTEGRATED– SEMESTER VIII- EXAMINATION –SUMMER-2022

**Subject Code: 2688602**                              **Date:02/06/2022**
**Subject Name: Advance Machine Learning**
**Time: 10:30 AM to 01:00 PM**                    **Total Marks: 70**
**Instructions:**

    **1. Attempt all questions.**
    **2. Make Suitable assumptions wherever necessary.**
    **3. Figures to the right indicate full marks**

| | | | |
|---|---|---|---|
| **Q.1** | **(a)** | List difference between machine learning and deep learning. | **07** |
| | **(b)** | What is neural network? Explain types of neural network. | **07** |
| | | | |
| **Q.2** | **(a)** | Explain Opencv library importance in Advance Machine learning. | **07** |
| | **(b)** | Write short note on CNN. | **07** |
| | | **OR** | |
| | **(b)** | Write short note on RNN. | **07** |
| **Q.3** | **(a)** | Explain LSTM with proper example. | **07** |
| | **(b)** | Explain following terms. | **07** |
| | |    1) Vanishing gradient problem. | |
| | |    2) Exploding gradient problem. | |
| | | **OR** | |
| **Q.3** | **(a)** | Write short note Deep Generative model. | **07** |
| | **(b)** | What is reinforcement learning? | **07** |
| **Q.4** | **(a)** | Explain Q-Learning algorithm. | **07** |
| | **(b)** | Write application of reinforcement learning. | **07** |
| | | **OR** | |
| **Q.4** | **(a)** | What is NLP? Explain various applications of NLP. | **07** |
| | **(b)** | What is part of speech tagging? Explain with an example. | **07** |
| **Q.5** | **(a)** | Explain Generator and Discriminator in context of GAN. | **07** |
| | **(b)** | Explain following terms of Reinforcement learning : | **07** |
| | |    1) Environment | |
| | |    2) State | |
| | |    3) Reward Policy | |
| | | **OR** | |
| **Q.5** | **(a)** | Explain sentimental analysis with an appropriate example. | **07** |
| | **(b)** | Explain Morphology in NLP. | **07** |

************