

Duration:(3 hrs.)

[Maximum Marks : 80]

NB:

- (1) Question No. 1 is compulsory.
- (2) Attempt any three questions out of the remaining five.
- (3) All questions carry equal marks.
- (4) Assume suitable data, if required and state it clearly.

- Q1. ATTEMPT ANY FOUR [20]
- a. Differentiate between Generative Adversarial Network and Variational Auto Encoder.
 - b. Explain Contractive autoencoders.
 - c. What are the benefits of pre-trained models?
 - d. Explain XGBoost regression.
 - e. Explain the limitations of 2D learning environments.
- Q2. a. Explain WGAN in detail. [10]
b. Explain the MinMax loss function used in GAN, along with the components of GAN. [10]
- Q3. a. Explain transfer learning. Describe different types of transfer learning. [10]
b. Explain DCGAN in detail. [10]
- Q4. a. Explain Sparse autoencoders in detail. [10]
b. Explain AdaBoost in detail. [10]
- Q5. a. Explain Gaussian Mixture Models. [10]
b. Explain CycleGAN in detail. [10]
- Q6. a. What is metaverse? Explain the characteristics and components of the metaverse. [10]
b. Explain Markov Random Field in detail. [10]
