

B.TECH.
(SEM I) THEORY EXAMINATION 2022-23
AI FOR ENGINEERING

Time: 3 Hours

Total Marks: 25

Note: Attempt all Sections. If you require any missing data, then choose suitably.**SECTION A**

- 1. Attempt any SIX questions in brief. 1x6 = 6**
- (a) Draw the Basic Architecture diagram of AI.
 - (b) Why AI is important for fulfill the future demands?
 - (d) Draw the Pyramid Structure of Memory units in Computer.
 - (f) Why language recognition is required?
 - (g) Write about the Neurons.
 - (h) How human Brain works?
 - (i) How real time recognition process works?
 - (j) Write the application of AI.

SECTION B

- 2. Attempt any three of the following: 3x3 = 9**
- (a) Write the Various Approaches used in Artificial Intelligence System.
 - (b) Explain all the stages involved in Data Processing with example.
 - (c) Explain the basic architecture of speech recognition Process with example.
 - (d) Explain the Universal Approximation Theorem with example.
 - (e) Write the Applications of Robots and need of Automation.

SECTION C

- 3. Attempt any one part of the following: 2x1 = 2**
- (a) Write the step by step evolution of the artificial intelligence system.
 - (b) Define Ethics. How Ethics is important parameter to Implement the AI?
- 4. Attempt any one part of the following: 2x1 = 2**
- (a) How Data is stored in computer system? Write the importance of Data Acquisition.
 - (b) Write the basic step of Regression, Prediction and Classification of Data.
- 5. Attempt any one part of the following: 2x1 = 2**
- (a) How does the system Understand the Natural language and perform accordingly?
 - (b) Explain the complete working of Chatbots and how it is useful?
- 6. Attempt any one part of the following: 2x1 = 2**
- (a) Define Deep Learning. Discuss the Importance of Deep Learning in Natural Language processing.
 - (b) Illustrate the Recurrent Neural Network Issues and explain its working in detail.
- 7. Attempt any one part of the following: 2x1 = 2**
- (a) Discuss the concept of Speech recognition besides the concept of Computer vision.
 - (b) How AI helps to promote the ROBOTS? How these objects are important for Automation?