

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?