PAPER ID-311963

Roll No: | | | | | | | | | | | | | |

BTECH
(SEM I) THEORY EXAMINATION 2024-25
AI FOR ENGINEERING

TIME: 3 HRS **M.MARKS: 25**

Note: Attempt all Sections. In case of any missing data; choose suitably.

SECTION A

1. Attempt *all* questions in brief. **2 x 10 = 20**

Q no.	Question	CO	Level
a.	Define Artificial Intelligence.	1	2
b.	List the various emerging technologies of AI.	1	1
c.	Explain data and its acquisition.	2	2
d.	Discuss in brief the importance of data visualization.	2	2
e.	Describe about speech recognition.	3	2
f.	List any two real-life applications of Natural Language Processing.	3	1
g.	Name the Different Layers on CNN.	4	1
h.	Describe about ANNs.	4	2
i.	List any 2 uses of computer vision technology.	5	2
j.	Differentiate between Robotics and Artificial Intelligence	5	2

SECTION B

2. Attempt any *three* of the following: **10 x 3 = 30**

a.	Describe the four categories under which AI is classified with examples	1	2
b.	Discuss data classification and regression.	2	2
c.	Explain the Natural language understanding and Natural language generation.	3	2
d.	Explain the three classifications of ANNs based on their functions. Explain them in brief.	4	2
e.	Describe about the facial recognition and elaborate how sinister is it?	5	2

SECTION C

3. Attempt any *one* part of the following: **10 x 1 = 10**

a.	Elaborate the history of AI.	1	1
b.	Discuss the various approaches to AI.	1	2

4. Attempt any *one* part of the following: **10 x 1 = 10**

a.	Elaborate the various stages involved in data processing and its importance.	2	2
b.	Discuss the concepts of data clustering and recommender systems in detail.	2	2

5. Attempt any *one* part of the following: **10 x 1 = 10**

a.	Elaborate a stepwise process for the working of chatbots.	3	2
b.	Describe the different components of a typical conversational agent.	3	2

6. Attempt any *one* part of the following: **10 x 1 = 10**

a.	Discuss Recurrent Neural Network.	4	2
b.	Explain Generative Adversarial Networks.	4	2

7. Attempt any *one* part of the following: **10 x 1 = 10**

a.	Discuss the various real life application of AI.	5	2
b.	Explain in details about object recognition in image processing.	5	2