

First/Second Semester B.E./B.Tech. Degree Examination, June/July 2026

Introduction to AI and Applications

Time: 3 hrs.

Max. Marks: 100

*Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.
2. M : Marks, L: Bloom's level, C: Course outcomes.*

Module – 1			M	L	C
Q.1	a.	Define Artificial Intelligence from Researchers perspective. List and Describe the classification of AI based on capabilities and functionalities.	10	L2	CO1
	b.	Define Learning. List and describe any four types of Learning with example for each.	10	L2	CO1
OR					
Q.2	a.	Define uninformed Search. With an example describe the steps involved in DFS algorithm.	10	L2	CO1
	b.	Define Reasoning. Describe Inductive and Deductive reasoning with example for each.	10	L2	CO1
Module – 2					
Q.3	a.	Define Prompt. List and describe the steps involved in Prompt Engineering.	10	L2	CO4
	b.	Write a suitable prompt for generating content reflecting the “Dialogue between two people who have just met for the first time” at initial and refined level with expected results of the prompt and proper justification for each.	10	L4	CO4
OR					
Q.4	a.	List and describe any 5 key principles for fostering innovation.	10	L2	CO4
	b.	Write a suitable prompt for generating content reflecting the “Impact of a creative mindset on problem-solving and innovation” at initial and refined level with expected results of the prompt and proper justification for each.	10	L4	CO4
Module – 3					
Q.5	a.	Define Machine Learning as per Professor Mitchell. Describe Supervised and Unsupervised Learning with an example for each.	10	L2	CO2
	b.	Write the formula for computing Euclidian distance. Compute the nearest neighbor of point (7,6) from points [(3,5) (9,7) (6,4) (9,3)] using Euclidian distance.	10	L4	CO2
OR					
Q.6	a.	List the advantages and disadvantages of K Nearest Neighbor classification technique.	10	L2	CO2
	b.	With a suitable example, Describe the K-Means Clustering algorithm.	10	L4	CO2

Module – 4

Q.7	a.	List and Describe any five Ethical concerns with respect to Artificial Intelligence.	10	L2	CO3
	b.	Describe the impact of Artificial Intelligence in the field of Medical, Automotive, Cyber Security and Legal Profession.	10	L3	CO3

OR

Q.8	a.	List and Describe the challenges involved in AI as a Service (AIaaS).	10	L2	CO3
	b.	Describe the importance of User Interface, Inference Engine, Forward and Backward Chaining and Knowledge Base in an Expert System.	10	L3	CO3

Module – 5

Q.9	a.	List any five differences between Traditional and Low Code development tools.	10	L3	CO3
	b.	Describe any five applications of AI in Healthcare.	10	L2	CO3

OR

Q.10	a.	List and Describe any five No Code AI tools and their usage.	10	L3	CO3
	b.	Describe any five applications of AI in Education.	10	L2	CO3

* * * * *