

Roll No.

Total No. of Pages : 02

Total No. of Questions : 09

B.Tech. (Artificial Intelligence & Machine Learning) (Sem.-7)

APPLIED INTELLIGENCE

Subject Code : BTAIML-709-20

M.Code : 93989

Date of Examination :02-12-2025

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

SECTION-A

1. Answer briefly:

- a) What do Bayesian methods aim to do in statistics?
- b) What's the role of system evaluation in Systems Engineering?
- c) What are the key components of a cyber-physical system?
- d) What's the main focus of logical thinking in this context?
- e) How does the aerospace sector benefit from using statistics?
- f) How can an organization impact Systems Engineering?
- g) Why are "countermeasures" important in connected systems?
- h) What makes logical agents unique among other agents?
- i) What is reinforcement learning?
- j) How do pooling layers help in a CNN's operation?

SECTION-B

2. Explain the key components of statistical learning.
3. Identify the key capabilities and requirements in systems engineering.
4. Define cyber-physical systems and their components.
5. How are logical agents used in automated reasoning?
6. How do Convolutional Neural Networks (CNNs) contribute to object identification?

SECTION-C

7. What are the fundamental principles of statistical learning and how are they applied?
8. Compare intelligent agents and multi-agent systems in cyber-physical contexts.
9. Describe how logical agents use logic in automated reasoning with practical examples?

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.