QP Code: D154036	Total Pages:1	Name:
		Register No.

FIFTH SEMESTER (CUFYUGP) DEGREE EXAMINATION, NOVEMBER 2026

COMPUTER APPLICATION

BCA5EJ308(4) Knowledge Engineering

2024 Admission onwards

Maximum Time :2 Hours | **Maximum Marks :70**

Section A

All Questions can be answered. Each Question carries 3 marks (Ceiling : 24 Marks)

1	How are evidence and knowledge related in evidence-based reasoning?
2	Define abductive reasoning and distinguish it from deductive reasoning.
3	What is Baconian probability?
4	What is fuzzy probability? Mention one application.
5	What is an intelligent agent?
6	What is an ontology of problem-solving tasks?
7	Differentiate a concept and an instance in an ontology.
8	What are defining features? Why are they useful?
9	What is inheritance in an ontology?
10	What is a rule in a knowledge-based reasoning system?

Section B

All Questions can be answered. Each Question carries 6 marks (Ceiling : 36 Marks)

11	Explain agent development using learning technology.
12	Discuss problem solving through analysis and synthesis.
13	Explain evidence-based reasoning and the role of evidence-based assessment.
14	Discuss the importance of ontology matching and its challenges.
15	Explain representation of n-ary features with a suitable example.
16	Describe the methodology used for ontology design and development.
17	Explain reduction and synthesis rules and their role in an inference engine.
18	Discuss evidence-based hypotheses analysis.

Section C

Answer any ONE .Each Question carries 10 marks (1x10=10 Marks)

19	Explain reduction and synthesis rules, inference engine operation, and evidence-based hypotheses analysis in detail.
20	Discuss reasoning with ontologies and rules. Explain complex ontology-based concepts and rules for ontology matching.