

BTECH AI SEMESTER II EXAMINATION 2023

PAPER- BTCSEAI 204

INTRODUCTION TO ARTIFICIAL INTELLIGENCE

Time: 2 1/2 hours

MM:60

Course outcomes (CO)

CO1. Discuss Artificial Intelligence. Discuss aim and goals of AI along with knowledge representation. Discuss learning and its types.

CO2. Analyze Expert systems and its application areas. Discuss knowledge and its representation.

CO3. Discuss Natural Language processing and its application areas.

CO4. Analyze Computer vision and AI latest trends. Analyze learning and its types.

CO5. Discuss Robots and components of Robots. Discuss advancements in AI.

Section-A

Note: Answer all questions from this section and all carry equal marks (5marks)

Q.N	Questions	CO	BL
1	What is Artificial Intelligence? Explain the goals and importance of Artificial Intelligence in real world problems.	CO1	L2
2	What do you understand by Learning? Differentiate between supervised and unsupervised learning.	CO1	L3
3	What do you understand by Natural Language processing? Explain the steps of NLP with example.	CO3	L3
4	What do you understand by Parsing? Explain top down and bottom up parsing with examples	CO3	L3

Section B

Note: Answer any FOUR questions from section B and all carry equal marks(10marks)

Q.N	Questions	CO	BL
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1	Explain propositional and predicate logic with examples. Represent the following statements 1. All men are mortal 2. Marcus was a man	CO2	L3
2	Explain the architecture of Expert systems. Name a few expert systems you are familiar with.	CO2	L2
3	Explain the process of development of Expert system with the help of a diagram.	CO2	L2
4	What are Robots? Explain the components of Robots along with the application areas of Robots.	CO5	L2
5	Explain Top down parsing for the following Grammar S->NP VP NP->ART N VP->V NP N->Boy/banana/Monkey V->ate/kissed ART->the/a Where S is the initial symbol for sentences NP is the noun phrase VP is verb phrase N is noun V is Verb ART is article Apply this Grammar on the sentence “ The monkey ate the banana”	CO3	L3
6	Write short notes on any TWO: a) ChatGpt b) AI in cybersecurity c) Machine Vision	CO4	L3