

**BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI  
(END SEMESTER EXAMINATION)**

**CLASS: BCA  
BRANCH: BCA**

**SEMESTER : IV  
SESSION : SP/2025**

**SUBJECT: CN229 INTRODUCTION TO ARTIFICIAL INTELLIGENCE**

**TIME: 3 Hours**

**FULL MARKS: 50**

**INSTRUCTIONS:**

1. The question paper contains 5 questions each of 10 marks and total 50 marks.
  2. Attempt all questions.
  3. The missing data, if any, may be assumed suitably.
  4. Before attempting the question paper, be sure that you have got the correct question paper.
  5. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.
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		CO	BL
Q.1(a)	What is artificial intelligence ? What is role of Turing test in AI	[5] 1	1
Q.1(b)	What is agent software and also explain Goal based Agents?	[5] 1	2
Q.2(a)	Explain difference between rational and simple agent software	[5] 1	2
Q.2(b)	Explain BFS and DFS algorithm with example	[5] 2	2
Q.3(a)	Explain Artificial neural network architecture and also differentiate between feed forward & back propagation	[5] 5	2
Q.3(b)	Explain A* search algorithm with example.	[5] 2	3
Q.4(a)	Describe stages of the knowledge engineering process.	[5] 3	2
Q.4(b)	Describe four approaches to knowledge representation.	[5] 3	1
Q.5(a)	Explain Bayesian Networks with example.	[5] 4	2
Q.5(b)	What are the stages involved in training a neural net using Back propagation algorithm. Explain	[5] 5	2

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