

Day & Date	Semester	Subject Name	Time	Code	Marks
Thursday 11/10/2018	VI (Repeater)	Artificial Intelligence	02.30 PM to 05.00 PM	6112	75

Note: 1. Question 1 is Compulsory.
2. Answer any 4 From Q2 to Q8

Q1 a) Explain syntax and semantics of first order logic.	8)
b) Discuss alpha-beta pruning algorithm with the help of a diagram.	7)
Q2 a) What is task environment? List the PEAS description of the task environment for an automated taxi.	8)
b) Explain various forms of learning.	7)
Q3 a) Define Agent with Diagram.	5)
b) Write a note on wumpus world.	5)
c) Write a note on Heuristic function	5)
Q4 a) Describe forward chaining and backward chaining with example.	8)
b) Write a note on Minimax Algorithm.	7)
Q5 a) Write down the standard formulation of 8 puzzle problems.	7)
b) Explain A* with example.	8)
Q6 a) Discuss Knowledge based learning. How it is different from explanation based.	8)
b) Explain hill climbing search with the help of diagram. State the problems faced during hill climbing.	7)
Q7 a) Write a short note on	
i) Breadth first search	5)
ii) Write a short note on Quantifiers	5)
iii) Inductive learning	5)
Q.8 a) What is AI? Discuss the applications of AI in detail.	7)
b) Write a note on greedy best first search.	8)

Day & Date	Semester	Subject Name	Time	Code	Marks
Friday 06/04/2018	VI (Fresh)	Artificial Intelligence	11.00 AM to 01.30 PM	6112	75

Note: 1) Q.No.1 is compulsory

2) Attempt any 4 questions from Q. No. 2 to Q. No. 7

- Q.1) a) Write a short note on (Any 1) [8m]
- Minimax algorithm
 - Alpha – Beta pruning
- b) Write a note on Heuristic function? [7m]
- Q.2) a) Explain A* with Example? [5m]
- Explain Hill Climbing Search [5m]
 - Explain various Forms of Learning [5m]
- Q.3) Difference between (Any Two) [15m]
- Blind search and informed search
 - Depth first search and breath first search
 - agent function and agent program
- Q.4) a) Write note on Forward and Backward Chaining? [8m]
- b) Describe five connective used in propositional logic syntax [7m]
- Q.5) a) Write a note on Wumpus world [8m]
- b) Write a note on Inductive Learning [7m]
- Q.6) a) Write down the steps to convert a sentence into CNF [7m]
- b) Write a note on Greedy best first Search? [8m]
- Q.7) a) Write the components of problem and formulate any Toy problem [8m]
- b) Define agent with diagram [7m]

Day & Date	Semester	Subject Name	Time	Code	Max. Marks
Thursday 16/11/2017	VI	Artificial Intelligence	02.30 PM To 05.00 PM	6112	75

Note: Question No. 1 is compulsory.
 Attempt any 4 out of the remaining.
 Give examples whenever necessary.

- Q.1** a) What is AI? Discuss the applications of AI in detail. **08**
 b) Write a note on Greedy best first search? **07**
- Q.2** a) Explain syntax and semantics of first order logic. **08**
 b) Discuss alpha-beta pruning algorithm with the help of a diagram. **07**
- Q.3** a) What is task environment? List the PEAS description of the task environment for an automated taxi. **08**
 b) Explain various forms of learning. **07**
- Q.4** a) Define Agent with diagram. **05**
 b) Write a note on wumpus world. **05**
 c) Write a note on Heuristic function. **05**
- Q.5** a) Describe forward chaining and backward chaining with example. **08**
 b) Write a note on Minimax Algorithm. **07**
- Q.6** a) Write down the standard formulation of 8 puzzle problems. **08**
 b) Explain A* with example. **07**
- Q.7** a) Discuss knowledge based learning. How is it different from explanation based learning. **08**
 b) Explain hill climbing search with the help of diagram. State the problem faced during hill climbing. **07**
- Q.7 Write a short note on:** **15**
 a) Breadth first search
 b) Quantifiers
 c) Inductive learning

[APRIL 2017]

Code : 6112

Artificial Intelligence Dt. 06-04-2017
BCA-Sem-VI-Fresh-Newcourse

Marks : 75

Note : 1) Q. 1 is compulsory.

2) Attempt any 4 questions from Q.2 to Q. 8

- Q. 1 a) What is mean by Agent and discuss different types of agent. (7)
b) Describe forward chaining and backward chaining with the help of an example. (8)
- Q. 2 a) Discuss Wumpus world (8)
b) What is a PEAS description. Explain with example. (7)
- Q. 3 Write short notes on (15)
1. Heuristic function
2. Turing Test
3. predicate logic
- Q. 4 a) Describe Learning Decision Tree (9)
b) Write a note on Kinship Domain. (6)
- Q. 5 a) Explain BFS Algorithm with example. (8)
b) What do you mean by AI and what are the applications and related fields of AI (7)
- Q. 6 a) Explain inductive learning briefly. (7)
b) Explain DFS algorithm. (8)
- Q. 7 a) Explain Hill climbing algorithm and what are the pitfalls of it and
How they can be over come. (15)
- Q. 8 a) Write syntax and semantic of first order logic (8)
b) Explain Alpha Beta Pruning (7)

[NOV 2016]

Code : 6112 Artificial Intelligence Marks
BCA - Sem VI (Repeater) (New course) - Exam - 23-11-2016

Note : 1) Q. no. 1 is compulsory.
2) Attempt any 4 questions from Q. no. 2 to Q. no. 8.

- Q. 1 a) Explain the Architecture of General agent? (8)
b) Explain greedy best first search? (7)
- Q. 2 a) Discuss breadth first search? (7)
b) Write a Algorithm for Hill Climbing and explain with suitable example. (8)
- Q. 3 a) Write a short note on forward and backward chaining. (8)
b) Write syntax and semantics of first order logic? (7)
- Q. 4 a) Discuss depth first search? (8)
b) What is mean by Artificial intelligence and explain nature of environment and properties of fast environment. (7)
- Q. 5 a) Discuss learning decision tree. (7)
b) Write short notes on Inductive logic programming. (8)
- Q. 6 a) Explain minimax procedure for game playing? (8)
b) Explain resolution patterns in propositional logic. (7)
- Q. 7 a) Discuss wumpus world in brief. (10)
b) Short note on current best hypothesis? (5)
- Q. 8 a) Explain A⁺ with example. (8)
b) Short note on kinship Domain. (7)

Bachelor of Computer Applications Examination: April 2016
Semester – VI (New Course) (Fresh) Pattern (75/25)

Day & Date	Semester	Subject Name	Time	Code	Max. Marks
Wednesday 20/04/2016	VI (Fresh)	Artificial Intelligence	11.00 AM to 01.30 PM	6104 (B)	75

Note: 1) Q. No. 1 is compulsory.
 2) Attempt any 4 questions from Q.2 to Q. 8.

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- Q.1 Explain Briefly the following:**
1. Simulated Annealing 05
 2. Agents and Environment 05
 3. Conjunctive Normal Form. 05
- Q.2 A.** Differentiate between informed search and uniformed search. Explain any one uniformed search technique. 08
- B.** Write a note on Local Beam search. 07
- Q.3 A.** Discuss Inductive Learning with the help of diagram. 08
- B.** What is the importance of knowledge in Learning? Explain with the help of an example. 07
- Q.4 A.** Describe in detail syntax and semantics of First Order logic. 08
- B.** What is Hill climbing search? Explain the disadvantages of hill climbing search. 07
- Q.5 A.** Write down the PEAS description for Wumpus World. 08
- B.** Explain Forms of Learning in detail. 07
- Q.6 A.** Formulate 8 puzzle problems and explain all the components of problem. 08
- B.** Write a note on Application of AI. 07
- Q.7 A.** Discuss alpha-beta pruning algorithm in detail. 08
- B.** Write a note on current best hypothesis search. 07
- Q.8** Explain Memory bounded Heuristic technique in detail 15

