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| Academic Year : 2021-22 | |
| SUBJECT : Artificial Intelligence | |
| CLASS: TE Computer | SEMESTER: 6th |
| ASSIGNMENT NO. : 1 | DATE OF SUBMISSION: 30/01/2022 |

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| **Q. No.** | **Question** | **Marks** | **Bloom’s Learning Level** | **CO** | **PO** | **PSO** |
| 1 | Define artificial intelligence? Justify with suitable example. How conventional computing is different from the intelligent computing? | 5 | Remember, Evaluate | C309.1 | 1,2,3,4 | 3 |
| 2 | Explain intelligent agents. Compare different types of agents. | 5 | Understand, Analyze | C309.1 | 1,2,3,4 | 3 |

**P. S. Sadaphule/ A. S. Chavan**

**Name & Sign of Subject In-charge**

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| Academic Year : 2021-22 | |
| SUBJECT : Artificial Intelligence | |
| CLASS: TE Computer | SEMESTER: 6th |
| ASSIGNMENT NO. : 2 | DATE OF SUBMISSION: 15/02/2022 |

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| **Q. No.** | **Question** | **Marks** | **Bloom’s Learning Level** | **CO** | **PO** | **PSO** |
| 1 | Define heuristic function and define the heuristics for 8-tile puzzle to move from initial state to goal state. Explain the A\* algorithm for 8 tile puzzle | 5 | Remember, Understand | C309.2 | 1,2,3,4,5,6,7,8,9,10,11,12 | 1,2,3 |
| 2 | Explain Hill climbing algorithm. Explain Local maxima, Global Maxima and plateau for an example. | 5 | Apply | C309.2 | 1,2,3,4,5,6,7,8,9,10,11,12 | 1,2,3 |

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| Academic Year : 2021-22 | |
| SUBJECT : Artificial Intelligence | |
| CLASS: TE Computer | SEMESTER: 6th |
| ASSIGNMENT NO. : 3 | DATE OF SUBMISSION: 28/02/2022 |

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| **Q. No.** | **Question** | **Marks** | **Bloom’s Learning Level** | **CO** | **PO** | **PSO** |
| 1 | Apply crypt arithmetic to solve the problem and represent the state search space to solve, TWO + TWO = FOUR | 5 | Apply | C309.3 | 1,2,3,4,6 | 1,3 |
| 2 | Comment on Backtracking and look ahead strategies in constraint satisfaction problems | 5 | Understand | C309.3 | 1,2,3,4,6 | 1,3 |

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| Academic Year : 2021-22 | |
| SUBJECT : Artificial Intelligence | |
| CLASS: TE Computer | SEMESTER: 6th |
| ASSIGNMENT NO. : 4 | DATE OF SUBMISSION: 15/03/2022 |

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| **Q. No.** | **Question** | **Marks** | **Bloom’s Learning Level** | **CO** | **PO** | **PSO** |
| 1 | Describe PEAS for WUMPUS world problem | 5 | Understand | C309.4 | 1,2,3,4,5,6 | 1,3 |
| 2 | Represent the following sentences into formulas in predicate logic,   1. John likes all kinds of food. 2. Apples are food. 3. Chicken are food. 4. Anything anyone eats and isn’t killed by is food. 5. Bill eats peanuts and is still alive. 6. Sue eats everything Bill eats. | 5 | Analyze | C309.4 | 1,2,3,4,5,6 | 1,3 |

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| Academic Year : 2021-22 | |
| SUBJECT : Artificial Intelligence | |
| CLASS: TE Computer | SEMESTER: 6th |
| ASSIGNMENT NO. : 5 | DATE OF SUBMISSION: 20/03/2022 |

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| **Q. No.** | **Question** | **Marks** | **Bloom’s Learning Level** | **CO** | **PO** | **PSO** |
| 1 | Explain unification algorithm, clearly stating the various output of the algorithm. | 5 | Understand | C309.5 | 1,2,3,4,5,6 | 1,2,3 |
| 2 | What are the components of rule based expert system. | 5 | Remember | C309.5 | 1,2,3,4,5,6 | 1,2,3 |

**P. S. Sadaphule/ A. S. Chavan**

**Name & Sign of Subject In-charge**

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| Academic Year : 2021-22 | |
| SUBJECT : Artificial Intelligence | |
| CLASS: TE Computer | SEMESTER: 6th |
| ASSIGNMENT NO. : 6 | DATE OF SUBMISSION: 30/03/2022 |

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| **Q. No.** | **Question** | **Marks** | **Bloom’s Learning Level** | **CO** | **PO** | **PSO** |
| 1 | Explain the components of a planning system for a simple Blocks World example. | 5 | Understand | C309.6 | 1,2,3,4,5,6 | 1,2,3 |
| 2 | Explain with an example Goal Stack planning (STRIPS algorithm) | 5 | Understand | C309.6 | 1,2,3,4,5,6 | 1,2,3 |

**P. S. Sadaphule/ A. S. Chavan**

**Name & Sign of Subject In-charge**

1. Assignments questions should be based on levels of understanding as per Bloom’s Taxonomy. Assignments are to be prepared as per format attached herewith.

The Bloom’s taxonomy has been revised; the old and new terms are given in table below:

|  |  |
| --- | --- |
| **Learning Levels** | |
| **Old** | **New** |
| Knowledge | Remembering |
| Comprehension | Understanding |
| Application | Applying |
| Analysis | Analyzing |
| Synthesis | Evaluating |
| Evaluation | Creating |

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| **Year** | **Weightages (%)** | | | | | |
| **Remembering** | **Understanding** | **Applying** | **Analysing** | **Evaluating** | **Creating** |
| **FE** | 40 | 60 | **NA** | **NA** | **NA** | **NA** |
| **SE** | 30 | 50 | 20 | **NA** | **NA** | **NA** |
| **TE** | 20 | 40 | 30 | 10 | **NA** | **NA** |
| **BE** | 10 | 20 | 40 | 15 | 10 | 05 |

1. Refer following table for the guidelines of learning levels and weightages to be assigned year wise. The weightages should be covered through all the assignments.

3. One assignment must be based on Open Course Ware (OCW) module. In this assignment students should be asked to watch a video (e.g. NPTEL/Youtube) on the topic allotted by the subject in-charge and write the summary and conclusion (in the format attached herewith). Every student should be given different topic.