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| PCCOE&R Logo | Pimpri Chinchwad Education Trust’s**Pimpri Chinchwad College of Engineering & Research** **Ravet, Pune** | **Engineering College in Pune** |
| **Academic Year**:2021-22 **Term–**II | **Insem Question Bank** |  |
|  | ***(Question Paper format)*** |  |
| **Department:** Computer Engg | **Class:** TE COMP | **Div:**(A ) |
| **Subject:**Artificial Intelligence |  |  |
| **Subject Code:310253** |  |  |
|  |
| ***Course Outcomes:***  | ***C303.1-*** To apply suitable agents for various AI applications.BT-3 |
|  | ***C303.2 -*** To analyze smart system using different informed search/uninformed search or heuristic approaches.BT-4 |
| Q1Q2Q3Q4 |  | Explain rationality and rational agents. Give an example of rational action performed by any intelligent agent.Explain different components of AI and compare Computational Intelligence Vs Artificial Intelligence.For each of the following activities ,Identify a PEAS description of the task environment and build in terms of PEAS1.Playing soccer2.Exploring subsurface oceans of Titan3.Shopping for used AI books on the Internet4.Playing a tennis match5. Performing a high jump.Elaborate History of AI and explain different applications of AI | (Marks – 8)**C303.1,BT-3**(Marks-7)**C303.1,BT-4**(Marks-7)**C303.1,BT-4**(Marks-8)**C303.1,BT-4** |
| Q5Q6 |  | Explain different properties of Agent task environments.Elaborate simple reflex agent with the help of neat diagram. | (Marks – 8)**C303.1,BT-3**(Marks – 7)**C303.1,BT-4** |
| Q7 |  | Elaborate utility based agent with the help of neat diagram. | (Marks – 7)**C303.1,BT-4** |
| Q8Q9 |  | Solve and formulate the water jug problem using searching techniqueExplain Simulated Annealing in detail. | (Marks – 7)**C303.2,BT-4**(Marks – 8)**C303.2,BT-4** |
| -----------OR-------- |
| Q10Q11 |  | Compare DFS and BFS with example.Explain local search hill climbing algorithm in detail. | (Marks – 8)**C303.2,BT-4**(Marks – 7)**C303.2,BT-4** |
| Q12Q13 |  | Formulate 8 puzzle problem and explain heuristic function using A\* algorithm. Explain AND OR GRAPH with the help of example. | (Marks – 7)**C303.2,BT-4**(Marks – 8)**C303.2,BT-4** |
| Q14Q15 |  | Compare DFS and BFS with example.Explain local search hill climbing algorithm in detail. | (Marks – 8)**C303.2,BT-4**(Marks – 7)**C303.2,BT-4** |

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