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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 | | | | | |
| Q1  Q2  Q3  Q4 |  | | 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 PEAS  1.Playing soccer  2.Exploring subsurface oceans of Titan  3.Shopping for used AI books on the Internet  4.Playing a tennis match  5. 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** |
| Q5  Q6 |  | | 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** |
| Q8  Q9 |  | | Solve and formulate the water jug problem using searching technique  Explain Simulated Annealing in detail. | | | | | | | (Marks – 7)  **C303.2,BT-4**  (Marks – 8)  **C303.2,BT-4** |
| -----------OR-------- | | | | | | | | | | | |
| Q10  Q11 | |  | 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** | |
| Q12  Q13 | |  | 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** | |
| Q14  Q15 | |  | 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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