**ACS COLLEGE OF ENGINEERINGC:\Documents and Settings\Administrator\Desktop\update kk\New Folder\naac-a-new.png**

**#207, Kambipura, Mysore road, Banglore-74**

**Department of Computer Science & Engineering**

**MODULE -1**

**AI PROBLEMS AND SEARCH**

1. Explain different characteristics of the AI problem used for analyzing it to choose most appropriate method.
2. A water jug problem states “you are provided with two jugs, first one with 4-gallon capacity and the second one with 3-gallon capacity. Neither have any measuring markers on it. How can you get exactly 2 gallons of water into 4-gallon jug”?
3. Write down the production rules for the above problem.
4. Write any one solution to the above problem.
5. Explain the Best-First search algorithm with an example.
6. Define Artificial Intelligence and List various task domains of AI.
7. Explain how AND-OR graphs are used in problem reduction.
8. State the algorithm for steepest ascent hill climbing along with its advantages.
9. Solve the following cryptorithematic problem: SEND + MORE = MONEY,
10. Explain four categories of production system.
11. Explain problem characteristics with respect to heuristic search.
12. Explain A\* search strategy with algorithm.
13. Write algorithm for constraint satisfaction problem and explain it.
14. Explain simulated annealing.