XIM University

School of Computer Science and Engineering

Paper Name: Artificial Intelligence for B.Tech. 5th

Session- 2023-2024

Assignment-1

Points-50, Evaluation weightage – 10

Date of Submission: 30/8/2023

1. Formalize their task environment as a **PEAS** description for AI systems given below. Assum whatever applicable. Also mention the type of intelligent systems these are and why (20 points).

    I.   Voise assistants (like amazon Alexa)
   II.   Chatbot (like IRCTC Disha)
  III.   Biometric system for attendance using Face/ thumb recognition.
  IV.   Health monitoring system

2. What is Problem solving agent? Design a blueprint of "Intelligent mobile phone troubleshooter" as problem solving agent. Formulate the goal, problem with states, actions, and transition models etc. (10 points).

3. Implement the BFS and uniform-cost search using python in the context of AI (20 points).

Help: https://youtu.be/_1NvYX3zj6o

Note:

A. Explain in short with logic/ algorithms/ examples wherever applicable.
B. Write on a white A4 sheet with neat and clean handwriting. No typed document will be allowed except the computer code.
C. You need to submit the hard copies of the assignment with title page.
D. Honest efforts will be rewarded.

Dr. Sourav Mandal