Tutorial Unit 1

M Sc IT II Semester

PS02CINT33: Artificial Intelligence

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Short Questions/Objective Questions

1. Define AI.
2. List any three characteristics of natural intelligence.
3. List any three constituents of AI definition.
4. State and explain in brief the nature of AI solution.
5. Name three types of AI application areas. Which of these area is the most difficult to implement?
6. Give two real life systems/applications that use AI. Mention how AI can be used in the system in one line.
7. What is full form of DIKW?
8. Define a production system.
9. Define KBS (Full form and one line definition).
10. List any two types of KBS.
11. Draw general structure of KBS.
12. List sources of knowledge.
13. List types of knowledge.
14. List components of knowledge.
15. Give an example of fact.
16. Give an example of rule or procedural knowledge.
17. Give an example of heuristic.
18. Name two strategies of inference engine working.
19. What are the limitations of knowledge acquisition in a typical KBS?
20. List three strategies of knowledge update.
21. Give full form of WFF. Where can it be used?
22. Define predicate in knowledge representation.

Big Questions

23. Define and describe NI and AI. Also state and explain in brief the nature of AI solution.
24. List and describe three types of AI application areas. Also give examples from each category. Which of these area is the most difficult to implement?
25. Write a short note on data pyramid (DIKW chain) and systems in the data pyramid (DIKW chain).
26. Explain production system by taking a water jug problem.
27. Explain hill climbing search.
28. Draw general structure of KBS. Explain all its components in brief.
29. Explain various types of knowledge such as (i) commonsense knowledge, (ii) informed common sense knowledge, (iii) meta knowledge, (iv) domain knowledge, etc.
30. Explain knowledge components (such as facts, rules, and heuristic) by giving example of each.
31. Explain how inference engine works. OR
    Explain forward chaining and backward chaining mechanisms of typical inference engine.
32. Explain knowledge acquisition process.
33. Explain knowledge representation structures.
34. Draw model of KBS development.
35. Describe limitations of symbolic representations of knowledge into a typical KBS.