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DCCA601

VI Semester B.C.A. Degree Examination, June/July - 2026
(NEP Scheme Freshers+Repeaters)
COMPUTER APPLICATION
Artificial Intelligence and Applications

HORIZON COLLEGE LIBRARY KASTURINAGAR BANGALORE-43

Time : 2½ Hours **Maximum Marks : 60**

Instructions:

Answer All the questions. Section A, Section B and Section C.

SECTION - A

I. Answer any Six questions. Each question carries 2 marks. **(6×2=12)**

1. What is Artificial Intelligence?
2. Mention any two properties of task environment?
3. What is Bidirectional Search?
4. Define an Heuristic Function.
5. What is logic?
6. What is backward chaining.
7. What is an Over fitting problem in Learning?
8. Define Support Vector Machine.
9. What is the role of sensors in Robotics?

SECTION - B

II. Answer any Four questions. Each question carries 6 marks. **(4×6=24)**

10. Explain the Agent-based program structure.
11. Describe the Depth-Limited Search.
12. Write the syntax and semantics of first order logic.
13. Describe Propositional Theorem Proving using resolution.
14. Write a note on Artificial Neural Networks.
15. Discuss briefly about Natural Language Processing

P.T.O.

SECTION - C

III. Answer any Three questions. Each question carries 8 marks. **(3×8=24)**

16. Discuss any two types of agents. **(8)**

17. Explain the AO* search algorithm with example. **(8)**

18. Explain Effective Propositional Model Checking? **(8)**

19. Explain the concept of Regression and Classification with Linear Models. **(8)**

20. Discuss the future of AI on Image Processing. **(8)**