Roll No……..….. **Total No. of Printed Pages: [01]**
Total No. of Questions: [09]

BCA (Semester –5th)
ARTIFICIAL INTELLIGENCE
Subject Code: BCAP1561
Paper ID: [160126]

Time: 03 Hours **Maximum Marks: 60**

Instruction for candidates:

1. Section A is compulsory. It consists of 10 parts of two marks each.
2. Section B consist of 5 questions of 5 marks each. The student has to attempt any 4 questions out of it.
3. Section C consist of 3 questions of 10 marks each. The student has to attempt any 2 questions.

Section – A **(2 marks each)**

Q1. Attempt the following:

a) What is production system in artificial intelligence?
b) List various AI techniques.
c) Explain the concept of Problem Space in AI.
d) What do you mean by Constraint Satisfaction
e) Write Advantages of AO* Algorithm.
f) Explain in brief about AND-OR Graph.
g) Define the term Knowledge Representation.
h) Explain in brief about Importance of Knowledge.
i) What are Expert Systems?
j) List types of Experts System

Section – B **(5 marks each)**

Q2. Explain in detail about importance of AI.

Q3. Write a detailed note on Hill Climbing

Q4. Explain in detail about various issues in Knowledge Representation.

Q5. Write a detailed note on Expert System Shells.

Q6. Explain in detail about Architecture of Expert System.

Section – C **(10 marks each)**

Q7. Write a detailed note on issues in Design of the Search Problem. (10)

Q8. Explain the following search strategies

i) best first search ii) A* search (5+5=10)

Q9. Write a detailed note on various Approaches used in Knowledge Representation. (10)