Roll No…….. **Total No. of Printed Pages: [1]**
Total No. of Questions: [09]

B.Tech. (ECE) (Semester –8th)
ARTIFICIAL INTELLIGENCE
Subject Code: BECED1-823
Paper ID: [18111347]

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) Explain the term 'knowledge representation'.
(b) Explain back propagation.
(c) Explain type 1 vs Type 2 errors in AI.
(d) How adversarial search is different from adversarial search?
(e) Describe decision tree in AI.
(f) What do you understand by the term Artificial Intelligence.
(g) What is object classification?
(h) Differentiate between supervised and unsupervised learning.
(i) Explain various Applications of AI.
(j) Discuss the term Image segmentation.

Section – B **(5 marks each)**

Q2. Describe Computer vision in AI.
Q3. What are the advantages of Gradient descent?
Q4. What is meant by first order logic in artificial intelligence.
Q5. What is the difference between RNN and LSTM networks.
Q6. Describe various applications of deep learning to NLP.

Section – C **(10 marks each)**

Q7. What is Machine learning. How does it work.
Q8. How is uncertainty measured in AI?
Q9. What is Heuristic search techniques in AI?