

009703

Dec. 2021

B.Tech. (EIC) - VII SEMESTER

AI and Expert System (EIEL-706)

Time : 90 Minutes]

[Max. Marks : 25

Instructions :

1. *It is compulsory to answer all the questions (1 mark each) of Part-A in short.*
2. *Answer any three questions from Part-B in detail.*
3. *Different sub-parts of a question are to be attempted adjacent to each other.*

PART - A

1. (a) What are the general features of expert systems? (1)
- (b) Make a thematic role frame for the following statements
(i) Satyam is sitting on a wooden stool by a window. (1)
- (c) Define knowledge acquisition. (1)
- (d) Write any two advantages of using an expert system development tool? (1)
- (e) Name the types of problems solved by the existing expert systems. (1)

- (f) What are the characteristics of an Expert System? (1)
- (g) Define Fuzzy Expert System. (1)
- (h) What is the area of expert for MYCIN Expert System? (1)
- (i) Describe Role of Cognitive system of any Expert System. (1)
- (j) How an expert system differs from knowledge based systems? (1)

PART - B

- 2. (a) Explain detail architecture of Rule Base Expert System. (3)
- (b) What is knowledge Engineering? Explain with example. (2)

- 3. (a) What are critical success factors for an Expert System? (2)
- (b) Explain Formalization and Testing phrase of ESDLC in detail. (3)

- 4. What are the tools used in expert system development? how they reduce the effort and cost involved in developing an expert system to large extent. (5)

- 5. (a) Represent the knowledge about
 - (i) M.S. Dhoni using semantic net. (3)
 - (b) Differentiate between Expert system and conventional programming. (2)

- 6. (a) What are the limitations of 2nd generation Expert System? (2)
- (b) Give the technical details of any real time expert system with its architecture. (3)