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53 (IT 715) ARIN

2021

ARTIFICIAL INTELLIGENCE

Paper : IT 715

Full Marks : 100

Time : Three hours

***The figures in the margin indicate
full marks for the questions.***

Answer ***any five*** questions.

1. (a) Define Artificial Intelligence (AI). List some applications of AI. 10
- (b) What are the major challenges associated with AI? 10
2. (a) State Turing test. Explain its relevance in AI. 10
- (b) Describe the minimax procedure. 10

Contd.

3. Explain the working of rule-based expert system. List some pros and cons of expert system. 20
4. Solve the following crypt arithmetic problem. Write constraint equations and find one of the solution using DFS. Show the steps involved in finding solution. 20

$$\begin{array}{r} \text{ROADS} \\ + \text{CROSS} \\ \hline \text{DANGER} \end{array}$$

5. Derive A* algorithm with suitable example. 20
6. Write short notes on the following : 20
- (a) DFS and BFS
 - (b) Uninformed search technique.