

GSQ/D-23**1135****ARTIFICIAL INTELLIGENCE****BCA-353**

Time : Three Hours]

[Maximum Marks : 80

Note : Attempt *Five* questions in all, selecting *one* question from each Unit. Q. No. 1 is compulsory. All questions carry equal marks.

1. Explain the following terms in brief : **2×8=16**
- (a) What is the need of Artificial Intelligence ?
 - (b) What is a Robot ?
 - (c) Define Expert System.
 - (d) Define Intelligence.
 - (e) What is Heuristic function ?
 - (f) What are goals of NLP ?
 - (g) What is Artificial Intelligence ?
 - (h) Define Intelligent Robot.

Unit I

2. (a) What do you mean by Problem representation in AI ? What is the aim of Artificial Intelligence ? **8**
- (b) What do you mean by knowledge ? Explain knowledge pyramid and types of knowledge. **8**

3. (a) Explain application areas of AI. 8
(b) Explain Turing Test. 8

Unit II

4. Explain various application areas of Expert Systems. 16
5. Explain various advantages and disadvantages of Rule based Expert System. 16

Unit III

6. What do you mean by Searching and Search procedure in AI ? Explain depth first search by using example. 16
7. Explain Hill Climbing Heuristic Search techniques by using example. 16

Unit IV

8. (a) Why is NLP needed ? 8
(b) Explain Mobile Robots. What are its applications ? 8
9. Distinguish between Speech Recognition and Voice Recognition. Explain various approaches to Speech Recognition. 16