

CS-801 (GS)
B.E. VIII Semester Examination, June 2020
Grading System (GS)
Soft Computing
Time : Three Hours

Maximum Marks : 70

Note : i) Attempt any five questions.
ii) All questions carry equal marks.

1. a) Define the following:
 - i) Artificial Intelligence
 - ii) Soft Computingb) Write and explain AO* algorithm.
2. What are the difference in learning approach of counter propagations network to feed forward network.
3. Write a short note on:
 - i) Associative memory
 - ii) Recurrent network
4. Define the architecture of a perceptron? What do you mean by linear separability?
5. Consider the following sentences :
 - a) Marcus was a man.
 - b) Marcus was a Roman.
 - c) All men are people.
 - d) Caesar was a ruler.
 - e) All Romans were either loyal to Caesar or hated him (or both)
 - f) Everyone is loyal to someone.
 - g) People only try to assassinate rulers they are not loyal to.
 - h) Marcus tried to assassinate Caesar.Answer the following questions :
 - I. Translate above sentences into predicate logic.
 - II. Convert them into clausal form.
 - III. Prove using resolution that Marcus hated Caesar.

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6. What is soft computing? Compare soft computing with hard computing.

OR

Explain various soft computing techniques.

7. What do you mean by Production system? What are various types of production system? Write down its characteristics.

8. Write short notes:(Any two)

- a) Crossover
- b) Mutation operator
- c) Reproduction phase of genetic algorithm
- d) Fuzzy membership function

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