

Roll No.

Y – 510 / Y – 511

B.Sc. Hons. (Third Year) EXAMINATION, March/April-2021

COMPUTER SCIENCE

Paper – III, IV

ARTIFICIAL INTELLIGENCE & EXPERT SYSTEM/ANALYSIS AND

DESIGN OF ALGORITHMS

Time : Three Hours

Maximum Marks : 40 + 40 = 80

Minimum Pass Marks : 33%

Note—Attempt *all* questions.

(Section A)

1. What do you mean by Artificial Intelligence ? How is it useful in present scenario ? Explain it with its role, importance, application areas in detail. 13
2. Describe search techniques with its generation and testing terminologies. Describe Hill Climbing and Best First search algorithm. 13
3. Write notes in detail : 14
 - (a) Acquisition techniques
 - (b) Knowledge representation.

(Section B)

4. Describe the procedure of calculating time and space complexity of algorithms. Also explain the purpose of Big Oh, Theta and Omega notations. 13
5. Explain the concept of divide and conquer. Describe it with the Bubble sort and Quick sort. 13
6. What do you mean by greedy method ? Explain it with general method and its optimal merges patterns, in detail. 14

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