M. Sc. 2nd Semester Examination – 2020 (CBCS)

Subject: Computer Science and Applications

Half: IA (Internal Assessment)

Full Marks: $(4 \text{ Papers}) \times 10 = 40$ Total Time for 4 (Four) Papers: 2 Hours

Candidates are required to give their answers in their own words as far as practicable.

Answer any 1 (one) question from each paper. All questions carry equal marks of 10.

Paper: MCSA – 201 (Design and Analysis of Algorithms):

- 1) Discuss the properties of Dynamic Programming paradigm and hence discuss any one such algorithm.
- 2) Discuss the worst case and best case time complexity of Quick Sort algorithm.

Paper: MCSA – 202 (Advanced Operating Systems):

- 1) Discuss the functionalities of Operating System in brief.
- 2) Discuss segmentation with paging memory management technique.

Paper: MCSA – 203 (Advanced Computer Network):

- 1) Discuss on any two types of firewall.
- 2) Discuss on DNS.

Paper: MCSA – 204 (Software Engineering):

- 1) Discuss on Iterative Waterfall Model.
- 2) Discuss COCOMO in brief.