



PG (CBCS)
M.SC. Semester- I Examination, 2023
COMPUTER SCIENCE
PAPER: COS 102
(PARALLEL COMPUTING & DISTRIBUTED SYSTEM)

Full Marks: 40

Time: 2 Hours

The figures in the right-hand margin indicate full marks.
 Candidates are required to give their answers in their own words as far as practicable.

Write the answer for each unit in separate sheet

M1: PARALLEL COMPUTING

GROUP-A

1. Answer any TWO of the following questions: 2×2=4

- a) What is parallel computing?
- b) How parallel computing influenced the throughput of a system?
- c) What do you mean by latency hiding?
- d) Explain different between SIMD and MIMD.

GROUP-B

2. Answer any TWO of the following questions: 2×4=8

- a) Discuss various types of parallel computing.
- b) Explain pipelining with its advantages and disadvantages.
- c) Discuss about various message passing technique.
- d) Explain PRAM Model.
- e) Explain the performance metrics of parallel computing.

GROUP-C

3. Answer any ONE of the following questions: 1×8=8

- a) Define Distributed memory system. Discuss memory organization for parallel computer.
- b) What is Inter Process Communication? How does Inter Process Communication work?

(P.T.O)



M2: DISTRIBUTED SYSTEM

GROUP-A

1. Answer any **TWO** of the following questions:

2×2=4

- a) What is Cloud computing?
- b) What are the advantages of Cloud services?
- c) What is MPLS?
- d) What is service oriented computing in Cloud?

GROUP-B

2. Answer any **TWO** of the following questions:

2×4=8

- a) Write a short note on AWS?
- b) What is Virtualization? Why could need Virtualization?
- c) What is DHT? Why DHT is used?
- d) Explain the use of Utility computing in the Cloud.

GROUP-C

3. Answer any **ONE** of the following questions:

1×8=8

- a) Explain the reference model of Cloud computing.
- b) Classify and explain the different types of Cloud.
