

M.Sc. 1st Semester Examination, 2024

COMPUTER SCIENCE

(Parallel Computing and Distributed System)

PAPER—COS-102

Full Marks : 50

Time : 2 hours

Answer all questions

The figures in the right hand margin indicate marks

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

GROUP – A

Answer any **four** questions from the following :

2 × 4

1. What is cache coherence ?
2. Why Butterfly network is so called?

(Turn Over)

3. Define thread.
4. What is fork join model in parallel computing ?
5. What do you mean by the term "Cloud" in cloud computing ?
6. What is cloud stack ?
7. What is the need of Virtualization in cloud ?
8. What is the role of service-oriented Computing in the Cloud.

GROUP – B

Answer any **four** questions from the following : 4×4

9. Explain Flynn's taxonomy. 5
10. What is Hypertree network ? What type of topology is it ? 4 + 1

11. What is parallel loop in OpenMP ? Give one example. What are its characteristics ? 3 + 2
12. Describe the cloud reference model with the help of diagram.
13. Explain the deployment model of cloud.
14. Write short note on AWS.

GROUP – C

Answer any two questions from the following :
8×2

15. What are the criteria by which network topologies are evaluated ? Explain each of them. 8
16. What is PRAM model ? How read write conflict are resolved in PRAM ? 2 + 6
17. Briefly explain the architecture of IaaS in the Cloud.

(4)

18. Explain the machine reference model of execution environment virtualization.

[**Internal Assessment – 10 Marks**]
