2022

1st Semester Examination
COMPUTER SCIENCE

Paper : COS 102

Full Marks : 40   Time : Two Hours

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

Paper : COS 102(M1)

1. Answer any *two* questions :   2×2=4

   (a) Differentiate between automatic and manual parallelization.

   (b) What do you mean by cache coherence?

   (c) Define Moore's law.

   (d) What do you mean by task parallelization?

2. Answer any *two* questions :   4×2=8

   (a) What are different parallel programming models? Explain any one of them in detail.   2+2

   (b) What do you mean by Flynn's taxonomy? Explain.

   (c) Explain butterfly interconnection network.

P.T.O.

(d) What do you mean by relaxed consistency model? Name one programming language which uses relaxed consistency model. 3+1

3. Answer any *one* question : 8×1=8

(a) What do you mean by granularity? What are different types of granularity? Explain each of them with example. 2+6

(b) Explain PRAM model for parallel computation. 8

Paper : COS 102(M2)

1. Answer any *two* questions : 2×2=4

(a) What is Cloud Computing?

(b) What are the challenges of Cloud computing?

(c) What are the advantages of cloud services?

(d) What is service-oriented computing in the cloud?

2. Answer any *two* questions : 4×2=8

(a) Explain the usage of Utility Computing in the Cloud.

(b) Describe the vision introduced by cloud computing.

(c) Write a short note on AWS.

(d) What is Virtualization? Why cloud need Virtualization?

3. Answer any *one* question :　　　　　　8×1=8

   (a) Classify and explain the different types of cloud.

   (b) Explain the reference model of Cloud Computing.

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