

Total No. of Questions : 10]

SEAT No. :

P2610

[5153]-586

[Total No. of Pages : 2

T.E. (Computer Engineering)
PRINCIPLES OF CONCURRENT AND DISTRIBUTED
PROGRAMMING
(2012 Course) (Semester - II) (End Semester)

Time : 2½ Hours]

[Max. Marks : 70

Instructions to the candidates:

- 1) *Answer Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6, Q.7 or Q.8, and Q.9 or Q.10.*
- 2) *Neat diagrams must be drawn wherever necessary.*
- 3) *Figures to the right indicate full marks.*
- 4) *Assume suitable data, if necessary.*

- Q1)** a) Explain Distribution Model. **[4]**
b) Write a program in LISP to find factorial of a given number. **[6]**

OR

- Q2)** a) Explain inter process communication. **[6]**
b) What is the structure of a YACC file? **[4]**

- Q3)** a) Write a note on Flynn's classification. **[6]**
b) Compare GPU and CPU. **[4]**

OR

- Q4)** a) Write a note on Shore's classification. **[6]**
b) Define Speed up with respect to parallel algorithms. **[4]**

- Q5)** a) What are the major issues of designing a Distributed OS? **[10]**
b) Explain various transparencies of a distributed system and how they are different from each other? Explain with example. **[8]**

OR

- Q6)** a) What are various models used in distributed computing environment? **[10]**
b) What is DCE cell? Explain the factors that need to be considered while deciding the cell boundaries. **[8]**

P.T.O.

- Q7)** a) What is Xen domain? Also explain hypervisor. [8]
b) What is para-virtualization? [4]
c) What is Hardware virtualization? [4]

OR

- Q8)** a) What is need of virtualization? Explain types of virtualization. [8]
b) What is Kernel-level virtualization? [4]
c) Explain Parallel virtual Machine? [4]

- Q9)** a) Explain how memory handling is done in CUDA. [6]
b) Write short notes on: [6]
• CUDA grids
• CUDA Kernels
c) Write a CUDA program for addition of two matrices. [4]

OR

- Q10)** a) Explain threads in CUDA. Also explain problem decomposition. [6]
b) Explain Block mapping to address in CUDA with an example. [6]
c) Explain CUDA Task Execution Model. [4]

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