

Total No. of Questions : 10]

SEAT No. :

P2463

[Total No. of Pages : 2

[5253] - 186

T.E. (Computer Engineering)

Principles of Concurrent and Distributed Programming

(2012 Pattern) (End Semester)

Time : 2 1/2 Hours]

[Max. Marks : 70

Instructions to the candidates :

- 1) *Answer Question 1 or 2, 3 or 4, 5 or 6, 7 or 8, and 9 or 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 in detail Declarative programming model. [6]
b) Write Short note on LISP. [4]

OR

- Q2)** a) Explain in detail Functional programming model. [6]
b) What is the structure of a LEX file? [4]

- Q3)** a) Explain [6]
• General purpose computer architecture,
• Special purpose computer architecture.
b) Explain Amdahl's law. [4]

OR

- Q4)** a) Explain Message Passing Model in parallel programming. [6]
b) Write a note on Fengs classification. [4]

- Q5)** a) Explain reliability and scalability issues in designing distributed operating system. [10]
b) Explain the following terms with respect to operating system : [8]
i) System image.
ii) Autonomy
iii) Fault Tolerance Capability.

OR

- Q6)** a) Explain performance issue in designing distributed operating system. [10]
b) Write a note on DCE cell. [8]

P.T.O.

- Q7)** a) Explain types of virtualization. [8]
b) Explain the common approaches to virtual computer systems. [8]

OR

- Q8)** a) Differentiate between Virtual System and Distributed System. [8]
b) Explain DomainO and DomainU Memory Management in Xen? [8]

- Q9)** a) Explain global memory in CUDA. [8]
b) Differentiate between Multi-CPU and Multi-GPU systems. [4]
c) Write short notes on: [4]
• CUDA threads
• CUDA blocks

OR

- Q10)** a) Explain threads in CUDA. Also explain problem decomposition [8]
b) Explain texture memory in CUDA. [4]
c) Write short note on CUDA kernels. Also explain Kernel call syntax. [4]

