NOV - 2017

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 ½ 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]

++++