

Total No. of Printed Pages:2

SUBJECT CODE NO:- H-340
FACULTY OF SCIENCE AND TECHNOLOGY
B.E. (CSE)
Parallel & Distributed Computing
(REVISED)

[Time: Three Hours]

[Max.Marks: 80]

Please check whether you have got the right question paper.

- N.B
- 1) Question No.1 & 6 are compulsory.
 - 2) Attempt any two questions from each section.
 - 3) Figures right indicates full marks.
 - 4) Assume Suitable data if necessary.

Section A

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|-----|--|----|
| Q.1 | a) Explain Moore's Law in detail. | 05 |
| | b) Explain the term data decomposition with suitable example. | 05 |
| Q.2 | a) Explain the term recursive decomposition with suitable example. | 08 |
| | b) How to improve memory latency using caches. | 07 |
| Q.3 | a) Explain CUDA program structure. | 08 |
| | b) Write a short note on OpenMP library functions. | 07 |
| Q.4 | a) Explain communication cost in parallel machines. | 08 |
| | b) What is thread? Explain POSIX thread API. | 07 |
| Q.5 | a) Draw & explain CUDA device memory model in detail. | 08 |
| | b) Explain UMA & NUMA shared address space in detail. | 07 |

Section B

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|-----|--|----|
| Q.6 | a) Explain the term logical clocks. | 05 |
| | b) What is RPC explain in detail. | 05 |
| Q.7 | a) Explain Lamport's algorithm for mutual exclusion. | 08 |
| | b) Explain Java RMI in detail. | 07 |
| Q.8 | a) Explain the term trashing. | 07 |
| | b) What is Hadoop? Explain building blocks of Hadoop. | 08 |
| Q.9 | a) Differentiate between distributed computing & parallel computing. | 05 |
| | b) Explain the term matrix clocks. | 05 |
| | c) Explain granularity in DSM. | 05 |

Q.10

Write short note on:

- a) Strict consistency model.
- b) Sequential consistency model.
- c) Causal consistency model.

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