



ADAMAS UNIVERSITY
END-SEMESTER EXAMINATION: MAY 2021
(Academic Session: 2020 – 21)

Name of the Program:	B.Tech CSE	Semester:	VIII
Paper Title:	ELECTIVE VII (DISTRIBUTED COMPUTING)	Paper Code:	ECS44102
Maximum Marks:	40	Time duration:	3 HRS
Total No of questions:	8	Total No of Pages:	2
<i>(Any other information for the student may be mentioned here)</i>			

Answer all the Groups

Group A

Answer all the questions of the following

$5 \times 1 = 5$

1. a) In distributed system, each processor has its own ____ (local memory / clock / both local memory and clock / none) (1)
b) If one site fails in distributed system then ____ (the remaining sites can continue operating / all the sites will stop working / directly connected sites will stop working / none) (1)
c) Network operating system runs on ____ (server / every system in the network / both server and every system in the network / none) (1)
d) ____ (Cache coherence scheme / Computation migration / Remote procedure call / Message passing) is based on compile-time program transformation for accessing remote data in a distributed-memory parallel system. (1)
e) Logical extension of computation migration is ____ (process migration / system migration / thread migration / data migration) (1)

GROUP –B

Answer *any three* of the following

$3 \times 5 = 15$

2. a) What is mutual exclusion in distributed systems? (2)
b) What do you mean by token based and non-token based algorithms? (3)
3. What are the differences between CPU scheduling and load scheduling? (5)
4. Briefly explain the token passing Suzuki-Kasami algorithm. (5)
5. Briefly describe the different components of access transparency. (5)

GROUP –C

Answer *any two* of the following

$2 \times 10 = 20$

6. Write short notes on ANY ONE of the following: (10)
a) Lamport's algorithm
b) Ricart-Agrawala Algorithm

c) Maekawa's Algorithm

7. a) What is deadlock in distributed systems? (2)
 b) Explain the different conditions for deadlock. (8)
 8. Elaborate synchronization and its role in distributed systems. (10)
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