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Total number of printed pages – 2

B. Tech  
PECS 3402

Seventh Semester (Special) Examination – 2013

**ADVANCED OPERATING SYSTEM**

BRANCH : IT

QUESTION CODE : D 485

Full Marks – 70

Time : 3 Hours

Answer Question No. 1 which is compulsory and any **five** from the rest.  
The figures in the right-hand margin indicate marks.

1. Answer the following questions :

2 × 10

(a) Differentiate between a process and thread.

(b) Define Distributed operating system.

(c) Explain fork( ) system call with example.

(d) What is race condition ?

(e) What is parallel programming ?

(f) Define monolithic kernel.

(g) Define Multiprocessor System.

(h) Define Message Passing.

(i) Define monitors.

(j) What is starvation ?

2. (a) Briefly describe how Remote Method Invocation process works.

5

(b) Discuss the threading issues which are considered with multithreaded Programs.

5

P.T.O.

3. (a) Discuss about issues in Distributed operating system. 5  
(b) List advantages and disadvantages of distributed systems. 5
4. (a) Write about Deadlock handling strategies Models of deadlock. 5  
(b) Explain how the deadlock handling in a distributed system environment is different from that in conventional environment. 5
5. (a) Write about Lamports logical clock with example. 5  
(b) Define Global states. 5
6. (a) Discuss about Chandy-Lamport's global state recording algorithm. 5  
(b) Write about Memory Coherence (Consistency) Models. 5
7. (a) How does Lamports algorithm guarantee mutual exclusion? 5  
(b) Explain the architecture and data access of a distributed system. 5
8. Write short notes on any **two** of the following : 5×2  
(a) Distributed Shared Memory  
(b) Multiprocessor OS requirements  
(c) Worms and viruses  
(d) Distributed Scheduling.

