Code No: **R42053** **R10** **Set No. 1**

IV B.Tech II Semester Regular Examinations, April/May - 2014

ADVANCED OPERATING SYSTEMS

(Common to Computer Science & Engineering and Information Technology)

Time : 3 hours **Max. Marks: 75**

Answer any Five Questions

All Questions carry equal marks

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1 a) Explain the objectives and functions of operating systems.
   b) Briefly describe evaluation of Operating System.

2 a) Explain in detail about Design Issues in Distributed systems.
   b) Explain remote procedure call and group communication.

3 a) Write about Bully algorithm.
   b) Discuss in detail about Atomic Transactions.

4 a) Describe in detail about Deadlocks in distributed systems.
   b) Describe in detail about Distributed deadlock prevention methods.

5 Explain in detail about Scheduling Methods in Distributed System.

6 a) Write a note on distributed file system implementation.
   b) Describe trends in distributed file systems.

7 a) Discuss about page based distributed shared memory.
   b) Write about object based DSM.

8 a) Explain about process management in MACH.
   b) Discuss about memory management in MACH.

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Code No: **R42053** **R10** **Set No. 2**

IV B.Tech II Semester Regular Examinations, April/May - 2014

ADVANCED OPERATING SYSTEMS

(Common to Computer Science & Engineering and Information Technology)

Time : 3 hours **Max. Marks: 75**

Answer any Five Questions

All Questions carry equal marks

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1 a) Explain about interrupts of operating systems.
   b) Briefly describe I/O Communication Techniques.

2 a) Explain Hardware and Software Concepts.
   b) Discuss about Client - Server model.

3 a) Write about E-tech algorithms.
   b) Discuss in detail about Clock synchronization.

4 a) Describe about deadlock in distributed systems.
   b) Describe in detail about distributed dead lock detection methods.

5 a) Explain in detail about real time distributed systems.
   b) Write about Processes and Processors in distributed systems.

6 a) Write a note on distributed file system implementation.
   b) Describe trends in distributed file systems.

7 a) Discuss about consistency models.
   b) Write about object based DSM.

8 a) Explain about UNIX emulation in MACH.
   b) Discuss about communication in MACH.

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Code No: **R42053** **R10** **Set No. 3**

IV B.Tech II Semester Regular Examinations, April/May - 2014

ADVANCED OPERATING SYSTEMS

(Common to Computer Science & Engineering and Information Technology)

Time : 3 hours **Max. Marks: 75**

Answer any Five Questions

All Questions carry equal marks

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1 a) Explain about System calls of operating systems.
   b) Briefly describe I/O Communication Techniques.

2 a) Explain Goals of distributed system.
   b) Discuss about ATM networks model.

3 a) What is synchronization?
   b) Discuss in detail about Clock synchronization.

4 What is Deadlock? Explain about distributed Deadlock prevention.

5 a) Explain in detail about Threads in distributed systems.
   b) Write about Scheduling in distributed system.

6 a) Write about Distributed file systems design.
   b) Describe trends in distributed file systems.

7 a) Discuss about consistency models.
   b) Write about shared variable distributed shared memory.

8 a) Explain about process management in MACH.
   b) Discuss about communication in MACH.

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Code No: **R42053** **R10** **Set No. 4**

IV B.Tech II Semester Regular Examinations, April/May - 2014

ADVANCED OPERATING SYSTEMS

(Common to Computer Science & Engineering and Information Technology)

Time : 3 hours **Max. Marks: 75**

Answer any Five Questions

All Questions carry equal marks

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1 a) Explain Memory hierarchy in operating systems.
b) Describe I/O functions in Operating System.

2 Explain how the group communication is provided in Distributed Systems and also write short notes on Remote Procedure Call.

3 a) Write about Mutual exclusion.
b) Discuss in detail about Atomic Transactions.

4 a) Describe in detail about Distributed deadlock detection methods.
b) Describe in detail about Distributed deadlock prevention methods.

5 Explain in detail about Scheduling Methods in Distributed System.

6 a) Write a note on distributed file system design.
b) Describe distributed file system implementation.

7 a) What is a shared memory? Explain about consistency models?
b) Explain about shared variable distributed shared memory?

8 Discuss the following with respect to MACH

a) Process Management in MACH

b) Process Scheduling

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