

B. Tech Third Year : 6th Semester
ADVANCE TOPICS IN OPERATING SYSTEMS, MAY, 2012
(FOR 6 CS/IT 6.1 BRANCH OF ENGINEERING)

Times : 3 Hours

--Min. Passing Marks : 24

Total Marks : 80

Instructions to Candidates : Attempt overall five questions selecting one question from each unit. All questions carry equal marks. (Schematic diagrams must be shown wherever necessary. Any data you feel missing may suitable be assumed and stated clearly. Units of quantities used/calculated must be stated clearly.)

⟨ **Unit-I** ⟩

1. Write short notes on:

- (a) Policies & Mechanism.
- (b) RMI.
- (c) Virtual Machines.
- (d) Solaris Thread.

OR

- (a) What is Exokernels ? Explain its designing.
- (b) What is message passing system? Explain its design issue.

⟨ **Unit-II** ⟩

- 2. (a) What is system security? Explain its problems.
- (b) What is RAID system? Explain in detail.

OR

- (a) Why Firewalls are used to protect system and network? Explain.
- (b) How cryptography is used as security tool? Explain.

⟨ **Unit-III** ⟩

- 3. (a) What is Linux OS? Explain its advantages.
- (b) What are caches? Explain linux page-cache.

OR

- (a) What are partitions and mount points? Discuss in detail.
- (b) Explain the following :
 - (i) Virtual memory.
 - (ii) Demand paging.

⟨ **Unit-IV** ⟩

- 4. (a) What is Window Operating. Explain its Design principles.
- (b) What is window registry? Explain in detail.

OR

- (a) Give the complete overview of multiprocessor operating system.
- (b) Write short notes on :
 - (i) Recovery.
 - (ii) Volume management and fault tolerance.

⟨ **Unit-V** ⟩

- 5. (a) Explain the real time scheduling?
- (b) Explain the common graphics file format and its types.

OR

- (a) What is java card? Explain its usage.
- (b) What is multos? How it is beneficial?