

R09**Code: 9A15401**

B.Tech II Year II Semester (R09) Supplementary Examinations December/January 2015/2016

OPERATING SYSTEMS

(Computer Science and Systems Engineering)

Time: 3 hours

Max. Marks: 70

Answer any FIVE questions

All questions carry equal marks

- 1 (a) Explain in detail about protection and security in a multiprogramming system.
(b) Explain the structure of Mac OS X.
- 2 (a) What are the reasons for providing an environment that allows process cooperation?
(b) Give note on process management in Linux.
- 3 (a) Give the definition of Swap() instruction. Explain the implementation of mutual exclusion using Swap().
(b) Explain the different types of storage media.
- 4 (a) With a neat diagram explain paging hardware with TLB.
(b) Explain memory management in UNIX.
- 5 Explain I/O system of an operating system.
- 6 (a) Discuss the merits and demerits of supporting links to files that cross mount points.
(b) Draw the schematic view of a virtual file system and explain.
- 7 (a) How reliability of disk is improved via redundancy?
(b) How performance of disk is improved via parallelism?
- 8 Write short notes on the following:
 - (a) Global Table.
 - (b) Access Links.
 - (c) Capability Links.
 - (d) Lock-Key Mechanism.
