

Subject Code: MC1322/R13

M C A - II Semester Regular/Supplementary Examinations, Aug - 2015

OPERATING SYSTEMS

Time: 3 hours

Max Marks: 60

Answer any **FIVE** of the following

All questions carry equal marks.

- 1). a) What are the advantages of single process system, and multi process system. Explain its advantages and disadvantages with suitable architectural diagrams.
b) Explain any 4 system calls with examples.
- 2). a) Explain the evolution of Operating systems.
b) What is a system Program? Explain any 3 system programs.
- 3). a) Define Process, draw the process diagram by explaining its states.
b) Explain about various schedulers in detail.
- 4). a) Define critical section problem. What are the 3 requirements to satisfy the critical section problem for its solution?
b) Explain Peterson's solution to the critical section problem.
- 5). a) Explain Paging with its hardware diagram.
b) What Demand paging? What is the need for page replacement explain through suitable diagram?
- 6). a) Define File. Explain various file attributes, and its operations.
b) Explain various file allocation methods.
- 7). Explain various Disk scheduling algorithms with suitable diagrams.
- 8). a) What is safe state? What are the methods for handling deadlocks?
b) Write short notes on Security defence
 - i) Access Matrix
 - ii) Firewalls
