

Roll No.

Total No. of Pages : 02

Total No. of Questions : 09

**MCA (2015 & Onward)(Sem.-4)
ADVANCED OPERATING SYSTEMS**

Subject Code : MCA-404

M.Code : 74122

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. SECTIONS-A, B, C & D contains TWO questions each carrying TEN marks each and students have to attempt any ONE question from each SECTION.
2. SECTION-E is COMPULSORY consisting of TEN questions carrying TWENTY marks in all.

SECTION-A

1. Explain different features of distributed file system. Give the key challenges faced by the distributed file system.
2. Discuss the features and differences between Multiprocessor and Distributed Operating Systems.

SECTION-B

3. Discuss the following :
 - a. Real time vs. Embedded OS
 - b. Energy Aware Scheduling.
4. Compare and Contrast Nano, Microkernel and Monolithic kernel.

SECTION-C

5. What is Grid Computing and why name is given Grid? How Grid computing is different from the distributed computing?
6. Explain the following :
 - a. High performance Computing (HPC) vs. High Throughput Computing (HTC)
 - b. What are the applications of the Grid that one explains to a naive person?

SECTION-D

7. Explain the evolution of virtualized Architecture of Cloud Computing.
8. Explain different platform operating system involved in Mobile.





SECTION-E

9. Write briefly :

- a) Explain NAS backend Cloud Concepts.
- b) What are the various operations on Directories?
- c) Differentiate between Monolithic Kernel vs. Micro Kernel.
- d) What is logical address space and physical address space?
- e) Explain Cluster Computing.
- f) What are the applications of Distributed Operating System?
- g) What is Resource Sharing in distributed Operating System?
- h) What are the Disadvantages of file system?
- i) Define Dynamic Memory Allocation.
- j) What is Grid Computing?

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.

