

CBCS SCHEME

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18CS43

Fourth Semester B.E. Degree Examination, Jan./Feb. 2021
Operating Systems

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

- 1 a. Explain in detail about abstract view of the components of a computer system with a neat diagram. (10 Marks)
 b. Explain about computer system organization with a neat diagram. (10 Marks)

OR

- 2 a. Discuss briefly about operating system operations with diagram. (10 Marks)
 b. Discuss briefly about types of system calls with illustration. (10 Marks)

Module-2

- 3 a. Discuss in detail about multithreading models with suitable illustration. (10 Marks)
 b. Explain about the different scheduling criteria in process scheduling concept. (10 Marks)

OR

- 4 a. Explain in detail about multiple – processor scheduling with example. (10 Marks)
 b. Discuss briefly about the critical – section problem with example. (10 Marks)

Module-3

- 5 a. Discuss briefly about semaphores in synchronization. (10 Marks)
 b. Discuss in detail about deadlock characteristics with example. (10 Marks)

OR

- 6 a. Discuss in detail about contiguous memory allocation with illustration. (10 Marks)
 b. Explain in detail about paging in a memory management scheme. (10 Marks)

Module-4

- 7 a. Discuss briefly about demand – paging in memory management scheme. (10 Marks)
 b. Discuss briefly about file attributes in a file system. (10 Marks)

OR

- 8 a. Explain in detail about various file operations in a file system. (10 Marks)
 b. Explain in detail about various file types in a file system. (10 Marks)

Module-5

- 9 a. Explain in detail about over view of mass storage structure. (10 Marks)
 b. Discuss about design principles of LINUX system. (10 Marks)

OR

- 10 a. Discuss about process management in a LINUX system. (10 Marks)
 b. Explain about inter process communication in the LINUX system. (10 Marks)

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
 2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.