

CREDIT BASED FIFTH SEMESTER B.Sc. DEGREE EXAMINATION OCTOBER 2013
COMPUTER SCIENCE
PAPER VI – Operating System and Linux

Time: 3 Hrs

Max. Marks: 80

PART – A

1. Answer any TEN questions from the following: 10x2=20

- a) Mention the different types of operating system.
- b) What is PCB?
- c) Differentiate between logical physical address space.
- d) Name any four attributes of a file.
- e) What is meant by aging?
- f) What is race condition?
- g) Explain simple batch system.
- h) What is dispatcher? What is its purpose?
- i) List the input and output redirection operators of Linux.
- j) Write a note on Who Command.
- k) What is the difference between mv and cp commands.
- l) List the string operators & their meaning in Linux.

PART – B

Answer any TWO questions from each unit.

UNIT – I

2.
 - a) Explain operating system services.
 - b) What is process? Draw the process state diagram and explain the various states of a process. (5+5)
3.
 - a) Explain external fragmentation with an example.
 - b) Explain the benefits of threads. (5+5)
4.
 - a) Explain the First-come, First-served (FCFS) and shortest Job First (SJF) scheduling algorithms.
 - b. Explain the segmentation with an example. (6+4)

UNIT – II

5. a) What is deadlock? Explain deadlock avoidance.
 b) Explain any 3 operations on a file (4+6)
6. a) Explain two deadlock detection methods.
 b) Write a note on disk scheduling. (4+6)
7. a) What are the necessary conditions for deadlock?
 b) Write a note on indexed allocation of memory to files. (5+5)

UNIT – III

8. a) Write a note on Kernel of Linux.
 b) Explain the following commands with syntax and example.
 (i) *ls* (ii) *grep* (iii) *Shift*. (6+4)
9. a) What are the features of Linux operating system?
 b) Explain the different versions of *cat* command with examples. (5+5)
10. a) Explain the looping constructs in Linux operating system with examples.
 b) Write a shell program to accept an integer, find the sum of digits and reverse it. (5+5)

COS 502.3

Reg. No.

CREDIT BASED FIFTH SEMESTER B.Sc. DEGREE EXAMINATION OCTOBER 2015
COMPUTER SCIENCE
PAPER VI – OPERATING SYSTEM AND LINUX

Time: 3 Hrs

Max. Marks: 80

PART – A

1. Answer any TEN questions from the following: 10x2=20
 a) Give any four examples for operating system.

- b) What is the major problem in priority scheduling?
- c) What is file allocation table (FAT)?
- d) Name any four attributes of a file.
- e) Define deadlock. Given an example for deadlock.
- f) What is dispatcher? What is its purpose?
- g) What is swapping?
- h) What is the difference between *mv* and *cp* command?
- i) Explain logical operators in Linux.
- j) Give the syntax and example of *grep* command.
- k) Give the usage of wildcards in Linux commands.
- l) Write a note on *whoami* command.

PART – B

Answer any TWO full questions from each unit.

UNIT – I

- 2. a) Explain multiprogramming and real time systems.
- b) Draw the 3-state process state diagram and explain the various states of a process. (5+5)
- 3. a) Explain segmentation with an example.
- b) Explain Round Robin scheduling algorithm. (5+5)
- 4. a) Write a note on memory compaction.
- b. Explain the benefits of threads. (6+4)

UNIT – II

- 5. a) What are the different methods of accessing a file.
- b) Explain two deadlock detection methods. (5+5)
- 6. a) Write a note on disk scheduling.
- b) What is a directory? Explain the different directory structures. (4+6)
- 7. a) What are the necessary conditions for deadlock situation to occur?
- b) Distinguish between disk caching and RAM disk. (5+5)

UNIT – III

- 8. a) What are the features of Linux operating system?
- b) Write a note on *Vi* editor of Linux. (6+4)

9. a) List and explain the important directories in the Linux file system.
b) Write a shell program to print the first n Fibonacci numbers. **(5+5)**
10. a) Give the syntax and explain the case statement with an example.
b) Explain the following Linux commands with syntax and example.
(i) *cut* (ii) *chmod* (iii) *mkdir* **(5+5)**
