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BCMCAVN 201



**Second Semester B.Com. Degree Examination, September 2022
(NEP 2020) (2021-22 Batch Onwards)
COMPUTER APPLICATIONS (Vocational)
Operating Systems (DSCC)**

Time : 2 Hours

Max. Marks : 60

Note : Answer **any six** questions from Part – **A** and **one full** question from **each** Unit of Part – **B**.

PART – A

1. a) List out any two benefits of thread. **(6×2=12)**
- b) Mention the methods for handling deadlock.
- c) Distinguish between absolute path and relative path.
- d) What is the purpose of cat command in LINUX ?
- e) Write the difference between rm and mv command.
- f) Write the syntax of mkdir command. Why is it used ?
- g) Mention any four attributes of a file.
- h) What is deadlock ? Give an example.

PART – B

Unit – 1

2. a) Briefly explain co-operating systems. **(4+4+4)**
- b) List the advantages of time shared system over multi-programmed systems.
- c) Explain any four major activities of an operating system with regard to file management.
3. a) Explain time sharing operating systems. **(4+4+4)**
- b) Write a note on different types of schedulers.
- c) Explain different multithreading models.

P.T.O.



Unit – 2

- 4. a) Explain the different criteria for CPU scheduling. **(4+4+4)**
 - b) Explain producer-consumer problem.
 - c) Explain Round Robin scheduling algorithm with an example.
- 5. a) What is critical section ? What are the requirements for a solution to critical section problem ? **(4+4+4)**
 - b) List and explain necessary and sufficient conditions for deadlock.
 - c) Explain priority scheduling with an example.

Unit – 3

- 6. a) Explain segmentation with an example. **(4+4+4)**
 - b) Explain FIFO page replacement algorithm.
 - c) Briefly explain direct and sequential access of files.
- 7. a) Explain optimal page replacement algorithm. **(4+4+4)**
 - b) Explain different directory structures.
 - c) Explain demand paging with diagram.

Unit – 4

- 8. a) Explain any four directory oriented commands with syntax and example. **(4+4+4)**
 - b) Explain do while with syntax and example.
 - c) Explain different Numeric operators used in shell programming.
 - 9. a) Explain the Linux file system with a neat diagram. **(4+4+4)**
 - b) Explain the following commands in Linux with syntax and example.
 - i) pwd
 - ii) who
 - c) Explain with syntax and example chmod command using symbolic and octal notation.
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