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BASDPC 381

Choice Based Credit System Sixth Semester B.A. Degree
Examination, September 2022
(2019-20 Batch Onwards)
DATA PROCESSING
Operating System

Time : 3 Hours

Max. Marks : 80

PART – A

1. Answer **any ten** from the following : **(10×2=20)**

- a) What is an Operating System (OS) ?
- b) What is the difference between a Program and Process ?
- c) What is CPU/IO Burst ?
- d) List the Wild Card Character used in Linux.
- e) What do you understand by a *Dispatcher* ?
- f) What is the syntax of a Linux Command ?
- g) What is the task of a Dispatcher ?
- h) List any 4 components of the Scheduling Criteria.
- i) What are the different Permissions in Linux ?
- j) Give the Syntax and explain mkdir and cd Commands in Linux.
- k) List the difference between page and frame.
- l) What is virtual memory ? Why is it needed ?

PART – B

Answer **one full** question from **each** Unit :

Unit – 1

2. a) Explain the components of OS. **(5+5+5)**
- b) Write a note on secondary storage management.
- c) Explain any 4 benefits of using Threads.

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3. a) What are the 4 services of the OS to the User ? **(5+5+5)**
b) Draw and explain the Process State of an OS.
c) Explain cooperating process.

Unit – 2

4. a) Explain any 4 scheduling criteria. **(5+5+5)**
b) Explain two Protocols to avoid “Circular wait”.
c) Explain FCFS Scheduling Algorithm.
5. a) Explain 3 requirements for the solution to the Critical Solution Problem. **(5+5+5)**
b) Explain two Protocols to avoid pre-emption condition of deadlocks.
c) Write a short note on Multiple Processor Schedule.

Unit – 3

6. a) What do you understand by swapping. Give example. **(5+5+5)**
b) What is Page Fault ? Write down a procedure for handling a Page – fault Trap.
c) Explain Paging Scheme with a diagram.
7. a) Discuss the hardware requirements for Paging. **(5+5+5)**
b) Explain different directory structures.
c) Explain any 5 operations on files.

Unit – 4

8. a) Explain how to create and edit and save shell program using the vi editor. **(6+5+4)**
b) Explain File access permissions in Linux.
c) Give the syntax of the “if statement” and explain it with an example.
9. a) Explain case statement with syntax and example. **(5+5+5)**
b) Explain the different features of Linux.
c) Explain the following Linux commands with general format and example.
i) cut ii) sort iii) grep
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