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.

P.T.O.

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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