FD-2866

BCA (Part-II) Examination, 2022

Paper - V

Operating Systems with LINUX

Time : Three Hours]　　　[*Maximum Marks* : 80
[*Minimum Pass Marks* : 27

Note : Answer any **two** parts from each question. All questions carry equal marks.

Unit-I

1. (*a*) What is Operating system ? Write application and limitations of any four types of operating system.

   (*b*) Write the functions of all resources of computer.

   (*c*) Write short notes on spooling and system call.

Unit-II

2. (*a*) Explain SJF, priority and RR scheduling algorithm and also calculate average waiting time and average turn around time.

(*b*) Write short notes on the following :

  (*i*) Scheduler

  (*ii*) Dispatcher

(*c*) Define all states of process and process state transition program.

Unit-III

3. (*a*) Explain internal and external fragmentation.

(*b*) Explain any two types of page replacement algorithm.

(*c*) Describe demand paging with introduction of page replacement.

Unit-IV

4. (*a*) Explain architecture of LINUX operating system.

(*b*) Describe LINUX directory and file system.

(*c*) Write purpose and syntax of following commands :

  (*i*) cp

  (*ii*) chmod

  (*iii*) ps

  (*iv*) grep

  (*v*) awk

Unit-V

5. (*a*) What is shell and shell variable ? Explain.

  (*b*) Describe different types of operators with example of one shell program.

  (*c*) Write a program to check whether the given number is prime or not ?
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