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.

(3)

(*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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