

Roll No.

E-3902

B. C. A. (Part II) EXAMINATION, 2021

(New Course)

Paper Fifth

OPERATING SYSTEMS WITH LINUX

(BCA-205)

Time : Three Hours]

[Maximum Marks : 80

Note : Attempt any *two* parts from each Unit. All questions carry equal marks.

Unit—I

1. (a) Explain the difference between multiprogramming and multiprocessor operating system.
- (b) Write various functions and goals of operating system.
- (c) Briefly describe the types of operating system.

Unit—II

2. (a) Explain the concept of process control block.
- (b) Describe the types of CPU scheduling.

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- (c) Write short notes on the following :
 - (i) Context switch and dispatcher
 - (ii) Process state

Unit—III

- 3. (a) Explain contiguous memory allocation in detail.
- (b) Write short notes on the following :
 - (i) Fragmentation
 - (ii) Compaction
 - (iii) Paging
 - (iv) Segmentation
- (c) Describe about various page replacement policies.

Unit—IV

- 4. (a) Describe features and benefits of Unix operating system.
- (b) Describe the following :
 - (i) Kernel and its function
 - (ii) System call and shell
- (c) Write short notes on the following Unix commands :
 - (i) who
 - (ii) pwd
 - (iii) cd
 - (iv) ls
 - (v) chmod

[3]

Unit—V

5. (a) Describe the following :
- (i) wild card characters
 - (ii) shell variables
- (b) Write short notes on the following :
- (i) i/out redirection
 - (ii) pipes/tee in shell programming
- (c) Write shell program to demonstrate if.....fi.