

Roll No. :

Total No. of Questions : 11]

[Total No. of Printed Pages : 3

BC-284

BCA (Part-II) Examination, 2022

OPERATING SYSTEM

Paper - BCA-202

Time : 3 Hours]

[Maximum Marks : 70

Section-A

(Marks : 2 × 10 = 20)

Note :- Answer all *ten* questions (Answer limit 50 words). Each question carries 2 marks.

Section-B

(Marks : 4 × 5 = 20)

Note :- Answer all *five* questions. Each question has internal choice (Answer limit 200 words). Each question carries 4 marks.

Section-C

(Marks : 10 × 3 = 30)

Note :- Answer any *three* questions out of five (Answer limit 500 words). Each question carries 10 marks.

Section-A

1. (i) What do you mean by Threads ?
- (ii) Define Context Switch.
- (iii) Define shell variables.
- (iv) Write one major difference between pre-emptive scheduling and non-pre-emptive scheduling.

- (v) Define throughput in your words.
- (vi) Write one major characteristics of deadlock.
- (vii) What does 'uname' command do in Linux ?
- (viii) What do you mean by semaphores ?
- (ix) What is the main advantage of using paging ?
- (x) Define virtual memory.

Section-B

2. Explain the different process states with a suitable diagram.

Or

Explain the types of schedulers.

3. Take any suitable example of FCFS algorithm explain how to find out the turnaround time of the system.

Or

Explain the concept of round robin scheduling with suitable example.

4. Explain the requirements for a solution to the critical section problem.

Or

Explain the procedure of deadlock prevention.

5. Explain the benefits of segmentation.

Or

Describe the directory structure in Linux.

6. Write a shell script to find the factorial of a number.

Or

Explain the procedure to install packages in Linux.

Section-C

7. Explain the layered structure of an Operating System.
8. Describe the following :
 - (a) Response Time
 - (b) MLQ Scheduling
9. Explain the Banker's algorithm using suitable example.
10. Describe the page replacement technique, FIFO with suitable illustration.
11. Explain the following commands :
 - (a) chmod
 - (b) apt
 - (c) man
 - (d) expr