

(i) Printed Pages : 3

Roll No.

(ii) Questions : 9

Sub. Code :

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Exam. Code :

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Bachelor of Computer Applications 4th Semester

(2055)

OPERATING SYSTEM CONCEPTS AND LINUX

Paper : BCA-16-404

Time Allowed : Three Hours]

[Maximum Marks : 65

Note :— Attempt **FIVE** questions in all, selecting **ONE** question from each section and compulsory question. All questions carry equal marks.

SECTION-A

1. (a) Discuss distributed operating system in detail. What are its benefits ?
(b) What is multi-level feedback queue scheduling algorithm?
(c) What is process control block ?
2. (a) Discuss real time operating system.
(b) Discuss round robin scheduling algorithm.
(c) Define the difference between preemptive and non-preemptive scheduling.

SECTION-B

3. (a) Discuss Optimal page replacement algorithm. What are its benefits over FIFO?
(b) What is segmentation? Discuss in detail.

- (c) What are necessary conditions for occurrence of a deadlock in a system?
- 4. (a) Discuss Banker's algorithm to avoid deadlock in a system.
- (b) What is swapping memory management technique?

SECTION-C

- 5. (a) What are the minimum system requirements for installing Linux?
- (b) What are the wild card characters? Explain with the help of suitable examples.
- (c) What are the different directory permissions in Linux? How will you change the directory permissions in Linux?
- 6. Explain the following in the context of Linux:
 - (a) umask
 - (b) sort command
 - (c) grep command
 - (d) cut command

SECTION-D

- 7. As a Linux System Administrator how do you perform the following:
 - (a) Mounting and Unmounting a file system
 - (b) Backup and Restore
 - (c) As a Linux administrator how will you manage user's account ?
- 8. (a) How will you move and copy text in vi editor ?
- (b) How will you search and replace text in vi editor ?
- (c) Differentiate between background and foreground process.
- (d) What is the purpose of nice command ?

(Compulsory Question)

9. (a) Which one is better — FCFS or SJF and why?
- (b) What is the purpose of nice command?
- (c) What are positional parameters in Linux?
- (d) What is a root account?
- (e) What is virtual memory?
- (f) What is a short term scheduler?
- (g) What command should be used to copy the directory /usr/user1 to /opt/pgms?