

BCA-13
December - Examination 2015
BCA IIIrd Year Examination
Operating System II
Paper - BCA-13

Time : 3 Hours]

[Max. Marks :- 100

Note: The question paper is divided into three sections A, B and C. Write answers as per given instructions.

Section - A

10 x 2 = 20

(Very Short Answer Questions)

Note: Answer all questions. As per the nature of the question delimit your answer in one word, one sentence or maximum upto 30 words. Each question carries 2 marks.

- 1) (i) Name four disk scheduling algorithms.
- (ii) What is shell?
- (iii) Differentiate between rmdir and rm -r linux command.
- (iv) Explain open source technology.
- (v) Give diagram of linux file structure.
- (vi) What is the super user in linux operating system?
- (vii) Explain flexibility and scalability in terms of distributed computing.

- (viii) What is marshalling?
- (ix) What are features of good message passing systems?
- (x) Explain hard real time systems.

Section - B

4 x 10 = 40

(Short Answer Questions)

Note: Answer any four questions. Each answer should not exceed 200 words. Each question carries 10 marks.

- 2) Explain the various permissions used for files and directories in linux.
- 3) Write a shell script to check whether the given number is odd or even.
- 4) Describe 'Super user' and 'Choosing root password'. Also give one example of each.
- 5) What is difference between hard real-time system and soft real-time system?
- 6) What are advantages of distributed systems over centralized systems? What are disadvantages of distributed systems?
- 7) Explain the command chmod in linux operating system with various options.
- 8) What are the various design issues in distributed computing? Explain with an example.
- 9) Write a short note on the following:
 - (i) Distributed File System
 - (ii) Network File System

Section - C

2 x 20 = 40

(Long Answer Questions)

Note: Answer any two questions. You have to delimit your each answer maximum upto 500 words. Each question carries 20 marks.

- 10) Explain various compression techniques used in multimedia systems. Give the application of each type of compressions.
 - 11) How remote procedure call (RPC) works. Explain with an example.
 - 12) Considering an ordered disk queue with respects evolving tracks 98, 183, 37, 122, 14, 124, 65 and 67. If the read/write head is initially at track 53. What is the total distance that the disk arm moves to satisfy all the pending requests for FCFS, SSTF?
 - 13) Explain encryption and decryption techniques used in operating systems for security.
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