MSCCS-10/MSCCS-204/MCA-204

December - Examination 2017

MSCCS-Final/MCA-IInd Year Examination

Operating System

Paper - MSCCS-10/MSCCS-204/MCA-204

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 $10 \times 2 = 20$

(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) Define operating system.

(ii) How an array is declared in awk programming?

(iii) What are classical problems of IPC?

(iv) What do you mean by private key cryptography?

(v) Write the issues of distributed OS.

(vi) What is the encryption and decryption?

(vii) What do you understand by external and internal security?

(viii) Write the need of advanced operating system.

(ix) Define thread.

(x) What do you understand by aliases in Linux?

Section - B

$4 \times 10 = 40$

(Short Answer Questions)

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

2) Describe the architecture of distributed shared memory.

3) Explain the relationship between shell and kernel in Linux.

4) Explain prevention methods of deadlock.

5) Discuss the various types of serializablity in database OS.

6) Explain naming and name resolution in distributed file system.

7) Explain the shadow paging in distributed OS.

8) Write the differences between private and public key cryptography.

9) How a deadlock is detected. Explain.

Section - C $2 \times 20 = 40$

(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) What is regular expression in awk? Write a awk script to find smallest number among 10 numbers.

11) Explain Ricart-Agrawala mutual exclusion algorithm.

12) Explain the issues of deadlock in distributed operating system.

13) Explain the coherence write protocols in distributed shared memory.