BCA-07/DCA-102

December - Examination 2016

BCA Pt. II/DCA Examination

Operating System - I

Paper - BCA-07/DCA-102

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. Limit to 30 words. All carries 2 marks.

1) (i) What is shell?

(ii) What do you mean by Batch processing?

(iii) Name some GUI based operating system.

(iv) What is the use of fork( ) system call?

(v) Why buffering is needed?

(vi) Name the principles of securing.

(vii) List the usage of spooling.

(viii) Define pages and frames.

(ix) What is overlaying?

(x) What do you mean by turnaround time?

Section - B $4 \times 10 = 40$

(Short Answer Questions)

Note: Answer **any four** questions. Limit your answer to 200 words. All carries 10 mark each.

2) Compare peer-to-peer and client server computing environment.

3) Write short note on Process Control Block.

4) Why 'thread' is known as light weight process? Explain.

5) State critical-section problem. Also suggest the solution for critical-section problem.

6) Differentiate compile time loading and run-time loading with example.

7) How swapping is implemented by virtual memory? Explain.

8) What is thrashing? Explain the cause of thrashing.

9) Discuss access control mechanism in context to data files.

Section - C $2 \times 20 = 40$

(Long Answer Questions)

Note: Answer **any two** questions. Limit your answer to 500 words. All carries 20 marks.

10) Define OS. Give the classification of operating system in detail.

11) What are the benefits of multithreading? Discuss multithreading model in detail.

12) Explain the concept of demand paging with suitable example.

13) Write short note on the following:
    (i) Encryption and Decryption mechanism
    (ii) Inverted page table