

BCA-07/DCA-102

December - Examination 2018

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 × 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 the methods by which we can eliminating deadlock by resource pre-emption?
- (ii) Give three examples of mobile operating systems.
- (iii) What is the use of Program Counter in Process Control Block?
- (iv) State Critical-Section Problem.
- (v) Why we need Overlaying?
- (vi) What is the use of **excel ()** System Calls?

- (vii) What do you mean by Polling?
- (viii) Differentiate between Logical and Physical Address Space.
- (ix) Give any four difference between CUI and GUI.
- (x) Name the services provided by an Operating Systems.

Section - B**4 × 10 = 40**

(Short Answer Questions)

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

- 2) What is Process? Explain Process State Model with neat diagram.
- 3) Discuss various scheduling criteria's of different CPU scheduling algorithms in detail.
- 4) Differentiate between Multiprogramming and Multiprocessing operating systems with suitable examples.
- 5) Explain various Multi-Threading Models in detail.
- 6) What is the role of Scheduler? Distinguish among Long-term scheduling, Medium-term scheduling and Short-term scheduling.
- 7) Discuss the four chief principles of security in computer application.
- 8) Explain various file accessing methods.
- 9) Write short note Encryption and Decryption Mechanism.

Section - C**2 × 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 paging? Explain Segmentation with Paging with suitable example.
 - 11) Illustration the process of Remote Procedure Call in detail.
 - 12) What are the necessary conditions for Deadlocks? Explain Banker's Algorithm with suitable example.
 - 13) Explain the principles of protection used in the designing of an operating system. Describe any one method for enforcement of protection mechanisms.
-