

**Goa Vidyaprasarak Mandal's
Gopal Govind Poy Raiturcar College of Commerce and Economics
Farmagudi, Ponda-Goa.**

B.C.A. (Semester - II) Examination – March/April 2013

OPERATING SYSTEM CONCEPTS

Duration : 2 hours

Marks : 50

Instructions : A.) *All the questions are compulsory.*
B.) *Draw neat diagrams with pencil wherever required.*

- I. 1. Select the correct option and rewrite the statement. (1mk x 5 = 5 mks)
- i. A file is an _____ data type.
(a) Sequence (b) Random (c) Abstract
 - ii. Extension _____ is executable file type.
(a) obj (b) exe (c) bat
 - iii. _____ access is also called Direct access.
(a) Relative (b) Simple (c) Complex
 - iv. A lazy swapper _____ swaps a page into memory unless that page will be needed
(a) never (b) always (c) sometimes
 - v. Virtual memory _____ processes to share memory.
(a) enables (b) disables (c) restrict
2. Answer the following. (1mk x 5 = 5 mks)
- i. What is Operating System ?
 - ii. What is System Bus ?
 - iii. What is Thread ?
 - iv. What is the main function of Microkernel ?
 - v. What does Limit register contain ?

- II. 1. Explain that the kernel is the main component of most of the OS. (2 mks)
2. Explain the External fragmentation. (3 mks)
3. Explain SCAN Scheduling with a diagram. (5 mks)
- III. 1. Explain the evolution of the Operating System. (2 mks)
2. Explain the use of Access Matrix. (3 mks)
3. Explain the Readers – Writers Problem. (5 mks)
- IV. 1. Explain the Trusted Systems in view of the Security. (2 mks)
2. Explain the reasons for Distributed Operating Systems. (3 mks)
3. Explain the Resource Allocation Graph with a Deadlock. (5 mks)
- V. 1. Explain two advantages of Web based Operating Systems. (2 mks)
2. Explain the design issues in Distributed Operating System. (3 mks)
3. Explain the Optimal Page Replacement. (5 mks)
