

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

B.C.A. (Semester - II) Examination, April 2018  
**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. State whether the following statements are True or False. (1 mk x 5 = 5 mks)
- A process is thrashing when it spends more time paging than executing.
  - Optimal Page Replacement replaces the page that will not be used for longest period of time.
  - Main Memory is not the volatile Memory.
  - Access Matrix design does not separate mechanism from policy.
  - Resident Monitor is software always in Memory.
2. Answer the following. (1 mk x 5 = 5 mks)
- What is Kernel ?
  - What is System Bus ?
  - What is Single-Threaded Process ?
  - What is External Fragmentation ?
  - What is a Deadlock ?
- II. 1. Explain the design issues related to Distributed Operating System. (2 mks)
2. Explain the advantages offered by Web based Operating System. (3 mks)
3. Explain the Shared Pages with the diagram. (5 mks)
- III. 1. Explain the various types of System and Network Threats. (2 mks)
2. Explain the Resource Management in Web based Operating System. (3 mks)
3. Explain the Process State with the diagram. (5 mks)
- IV. 1. Explain the concept of Trusted Systems. (2 mks)
2. Explain the Segmentation with an example. (3 mks)
3. Explain the SCAN Scheduling with an example. (5 mks)
- V. 1. Explain the major services of an Operating System. (2 mks)
2. Explain a typical File-System Organization. (3 mks)
3. Explain the Critical-Section Problem. (5 mks)

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