

T. Y. B. C. A. Semester 5
Effective From: June 2013.

Paper No.: 504 (Foundation)
Paper Title: Operating System-II

Teaching Hours: 2 Hrs./Week
Credits: 2

Prerequisite: Fundamental Knowledge of Operating System.

Aim: To Understand Various Advanced Functions and Concepts to Manage Operating System along with scheduling concept.

Expected Outcome: Students will get good understanding of various Functions and Management of Operating System.

1. Memory Management

- 1.1. Memory Management Functions
- 1.2. Contiguous Allocation
 - 1.2.1. Partitioned Memory Static and Dynamic Allocation
 - 1.2.2. Segmentation
- 1.3. Non-Contiguous Allocation
 - 1.3.1. Paging Segmentation
 - 1.3.2. Demand Paging and Segmentation
 - 1.3.3. Allocation and Replacement Policies

2. Process Management

- 2.1. Process Management
- 2.2. Process Concept
- 2.3. Scheduling
- 2.4. Scheduling Algorithms
- 2.5. Process co-ordination
 - 2.5.1. Producer / Consumer Problem
 - 2.5.2. Critical Section Problem
 - 2.5.3. Semaphores
 - 2.5.4. Inter Process Communication
 - 2.5.5. Deadlocks

3. File Management

- 3.1. File Management Functions.
- 3.2. File System and Directory Structure Organization.
- 3.3. File Protection.

VEER NARMAD SOUTH GUJARAT UNIVERSITY – SURAT
Bachelor of Computer Application (B.C.A) 3rd Year
Proposed Syllabus (As Per CBCS)

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Reference Books:

1. Silberschatz - An OS Concept – Addition Wesley Publication
2. W.Stallings – An Operating Systems - PHI
3. I.M.Flinn, A.M. Mchoes – Understanding Operating Systems – Thomson Learning
4. Donovan M. – Operating Systems - McGrew Hill Pub.
5. Crowley : Operating Systems : A Design Oriented Approach – Tata McGraw Hill
6. S. Godbole – Operating Systems TMH.