B. Sc. IT (HONS.): 5th Semester						
Course Title	Course Code	Credits- 06			Total Marks- 90	
		Theory	Tutorial	Practical	Theory	Practical
Operating System	BIT520C2	04	Nil	02	**60**	**30**

UNIT-I

Introduction: Evolution of operation system, types of operating system, different views of the operating system, operating system concept and structure.

UNIT-II

Process: The process concept, programmer's view of process, the operating system service for process-management, scheduling algorithms performance evolution.

Inter-process communication:The need for inter-process synchronization, mutual exclusion and semaphore, queuing implementation of semaphore, critical region and conditional critical region, dead lock (dead lock detection, avoidance).

UNIT-III

Memory management:Memory management without swapping or paging, swapping, virtual memory, page replacement algorithm, segmentation, file system, directions, file system implementations.

Note: *The Practical Component shall be based on the Unit-I to Unit-IV*

BOOKS RECOMMENDED:

1. Peterson, j.l. Abraham silberschatz, "Operating System Concept". Addison Wesley Publishing Company
2. Dietal, H.M., "An Introduction To Operating System". Addison Wesely Publishing Company
3. Brian W,Kernighan rob pike "The Unix Programming Environment"
4. YashwantKanitkar "Unix Shell Programming"

Suggested Reading:

1. Tananbum, A.S., "Modern Operating System", PHI
Milenkovic, M., "operating System- Concepts and designs". Cgraq Hill