SUBJECT   : Operating Systems

SEM / YEAR: IV Sem/ II Year

UNIT I - Introduction
Introduction: What Operating Systems Do?, Computer System Architecture, Operating System Structure, Operating System Services-User Operating system interface, system Calls, Types of System calls, System programs, Operating System Structure, System boot.   **Process Concept:** Process Concept, Process Scheduling, Operations on Processes, Inter-process Communication

PART – B			
1.	(i) Explain the various types of system calls with an example for each.(8) (ii) Discuss the functionality of system boot with respect to an OperatingSystem. (5)	BTL-5	Evaluating
2.	Illustrate how the operating system has been evolved from serial processing to multiprogramming system.	BTL-3	Applying
3.	(i) Explain the various structure of an operating system. (8) (ii)Describe system calls and system programs in detail with neat sketch. (5)	BTL-1	Remembering
4.	Describe the evolution of operating system.	BTL-2	Understanding
5.	(i) State the operating system structure (4) (ii) Describe the operating system operations in detail. Justify the reason why the lack of a hardware supported dual mode can cause serious shortcoming in an operating system? (9)	BTL-6	Creating
6.	Explain the different architecture of OS starting from simple structure, layered structure, micro kernels, modules and hybrid systems, with suitable examples OS structure, including Google's Android.	BTL-3	Applying
7.	Discuss about micro kernel architecture.	BTL-2	Understanding
8.	Explain the module architecture of an operating system with neatdiagram.	BTL-1	Remembering
9.	Discuss hybrid system design of an Operating system.	BTL-4	Analyzing
10.	Distinguish between the dual mode and multi-mode operation in operatingsystems.	BTL-1	Remembering
11.	Discuss the essential properties of the following types of systems. (i) Time sharing systems. (7) (ii) Multi-programmed batch systems. (6)	BTL-1	Remembering
12.	Explain inter–process communication.	BTL-4	Analyzing
13.	How could a system be designed to allow a choice of operating systemsfrom which to boot? (6) What would the bootstrap program need to do? (7)	BTL-4	Analyzing
PART – C			
1.	(i) With neat sketch discuss operating system overview.(8) (ii) Enumerate the different operating system structure and explain withneat sketch. (7)	BTL-6	Creating
2.	(i) State the basic functions of OS.(5) (ii) Explain system calls, system programs and OS generation.(10)	BTL-5	Evaluating
3.	Evaluate in detail the operating system services.(15)	BTL-5	Evaluating
4.	Summarize about four resources that will be allocated by operating systemto users and processes.(15)	BTL-5	Evaluating
5.	Develop System Call – OS Relationship.(15)	BTL-6	Creating