G. VENKATASWAMY NAIDU COLLEGE (AUTONOMOUS), KOVILPATTI – 628 502.

UG DEGREE END SEMESTER EXAMINATIONS - NOVEMBER 2024.

(For those admitted in June 2021 and later)

PROGRAMME AND BRANCH: B.Sc., INFORMATION TECHNOLOGY

SEM	CATEGORY	COMPONENT	COURSE CODE	COURSE TITLE
IV	PART - III	CORE	U21IT405	OPERATING SYSTEM

Date & Session: 05.11.2024 / AN   **Time : 3 hours**   **Maximum: 75 Marks**

Course Outcome	Bloom's K-level	Q. No.	SECTION – A (10 X 1 = 10 Marks) Answer ALL Questions.
CO1	K1	1.	Select the program that acts as an intermediary between a user and the computer hardware. a) operating system b) network c) data d) bug
CO1	K2	2.	Indicate the _____ request to the OS to allow user to wait for I/O completion. a) topology b) operation c) system call d) operating system
CO2	K1	3.	Mention the name of time elapsed between the job submission and its completion. a) response time b) waiting time c) terminal response time d) turnaround time
CO2	K2	4.	Indicate the state in which a process is placed when it is ready to execute but waiting for CPU availability? a) Running b) Waiting c) Ready d) Blocked
CO3	K1	5.	Identify a protected variable which can be accessed and changed by particular set of operations is called. a) IPC b) Semaphore c) Interrupt d) Monitor
CO3	K2	6.	Write the term for a problem encountered in multitasking where a process is perpetually denied necessary resources? a) deadlock b) system call c) inversion d) starvation
CO4	K1	7.	Select the typical size of a page in a paging system. a) Size of main memory b) Size of a process c) Size of a frame d) Size of virtual memory
CO4	K2	8.	Each entry in a segment table has a _____. a) segment base b) segment peak c) segment value d) log
CO5	K1	9.	What component is responsible for managing input and output devices in an operating system? a) File System b) Device Driver c) Scheduler d) Memory Manager
CO5	K2	10.	Indicate where a CD-ROM typically used in a file system as. a) Temporary memory storage b) File fragmentation c) Process Scheduling d) Non-volatile storage of data

Course Outcome	Bloom's K-level	Q. No.	**SECTION – B (5 X 5 = 25 Marks)** **Answer ALL Questions choosing either (a) or (b)**
CO1	K3	11a.	Illustrate about Distributed Processing. **(OR)**
CO1	K3	11b.	Write a short note on booting in Operating System.
CO2	K3	12a.	Examine suspend/resume operations. **(OR)**
CO2	K3	12b.	Illustrate about levels of Process Scheduling.
CO3	K4	13a.	Clarify race condition and how they occur. **(OR)**
CO3	K4	13b.	Analyze about Deadlock pre-requisites.
CO4	K4	14a.	Investigate about Single Contiguous memory management. **(OR)**
CO4	K4	14b.	Analyze the concept of Paging.
CO5	K5	15a.	Discuss about Process Management in Linux. **(OR)**
CO5	K5	15b.	Assess the security system in Linux.

Course Outcome	Bloom's K-level	Q. No.	**SECTION – C (5 X 8 = 40 Marks)** **Answer ALL Questions choosing either (a) or (b)**
CO1	K3	16a.	Examine about the services of operating system. **(OR)**
CO1	K3	16b.	Illustrate about System Call.
CO2	K4	17a.	Investigate a detailed analysis Process States. **(OR)**
CO2	K4	17b.	Examine about Multithreading Models.
CO3	K4	18a.	Analyze the concept of Message Passing. **(OR)**
CO3	K4	18b.	Clarify about Deadlock strategies.
CO4	K5	19a.	Discuss in detail about Segmentation. **(OR)**
CO4	K5	19b.	Assess in detail about Virtual Memory Management Systems.
CO5	K5	20a.	Assess in detail about Process Scheduling in Linux. **(OR)**
CO5	K5	20b.	Discuss in detail about Memory Management Systems in Linux.