3rd Sem / Branch : Computer

Sub.: Operating Systems

Time : 3Hrs.   M.M. : 60

SECTION-A

Note: Multiple choice questions. All questions are compulsory   (6x1=6)

Q.1 A set of process is in deadlock if

a) Each process is blocked and will remain so forever

b) Each process is terminated

c) All process are tyring to kill each other

d) None of the mentioned

Q.2 Which one of the following is the deadlock avoidance algorithm?

a) Banker's algorithm

b) Round robin algorithm

c) Elevator algorithm

d) Kara's algorithm

Q.3 Who developed Linux Software?

a) Dennis M. Ritchie   b) Linus torvalds

c) Bajrne stroustrup   d) Grace Murray Hopper

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions.   (2x8=16)

Q.23 Define operating system. What are various functions of operating system? What is the importance of operating system?

Q.24 What are the necessary conditions for a deadlock to occur? What is the usage of banker's algorithm? Explain with the help of an example.

Q.25 Write a short note on following (any two):

a) Shared/Dedicated Devices

b) Vi Editor

c) Logical/Physical Address space

(4100)

Q.4 Linux is a ?
a) Single user, single tasking
b) Single user, multitasking
c) Multi user - single tasking
d) Multi user, multitasking

Q.5 _____ is the concept in which a process is copied into the main memory from the secondary memory according to the requirement
a) Paging   b) Demand paging
c) Swapping   d) segmentation

Q.6 DOS stand for
a) Disk operating system
b) Disk operating signal
c) Disk Orientation system
d) Disk Orientationally signal

SECTION-B

Note: Objective/Completion type questions. All questions are compulsory.   (6x1=6)

Q.7 _____ and _____ are two types of Fragmentation in memory.

Q.8 Spooling stands for _____ .

Q.9 Define operating system.

Q.10 A process has _____ states.

Q.11 _____ is an example of output device.

Q.12 Which command is used in UNIX to view all currently users logged in to system.

SECTION-C

Note: Short answer type questions. Attempt any eight questions out of ten questions.   (8x4=32)

Q.13 Discuss various process states with the help of labeled diagram?

Q.14 Differentiate between long term & short term scheduler (any four differences).

Q.15 What is the role of swapping in memory management?

Q.16 Define Virtual Machine Discuss four benefits of virtual machine.

Q.17 Write a shell program to find the average of three numbers.

Q.18 Differentiate between external & internal fragmentation.

Q.19 Write a short note on buffering & spooling.

Q.20 Define file system. Why it is required? Name four categories of File system.

Q.21 Briefly explain the concept of paging memory management scheme.

Q.22 Discuss in brief usage of following Linux commands with example:
Head, tail date, is