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Roll No.

220831

**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 trying 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) Bajrme stroustrup
 - d) Grace Murray Hopper

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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.

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- 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

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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):
- Shared/Dedicated Devices
 - Vi Editor
 - Logical/Physical Address space

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