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3rd Sem. / Computer Engg.

Subject : Operating Systems

Time : 3 Hrs. M.M. : 100

SECTION-A

Note: Multiple choice questions. All questions are compulsory (10x1=10)

Q.1 DOS stand for
- a) Disk Operating System
- b) Disk Operating Signal
- c) Disk Orientation System
- d) Disk Orientational Signal

Q.2 Which command is used to make the directory in DOS?
- a) Del*.* b) MD
- c) RD d) Erase

Q.3 Which one of the following is the address generated by CPU?
- a) Physical address
- b) Absolute address
- c) Logical address
- d) None of the mentioned

Q.4 Run time mapping from virtual to physical address is done by_____.
- a) Memory management
- b) CPU
- c) PCI
- d) None of the mentioned

Q.29 What are the difference between Real Time System and Timesharing System.

Q.30 What is Unix ? Write down any four features of UNIX.

Q.31 What are the different accessing methods of a file?

Q.32 What are the operations that can be performed on a directory?

Q.33 Explain time slicing. How its duration affects the overall working of the system.

Q.34 What is segmentation?

Q.35 Explain the DMA

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. 2x10=20

Q.36 What is operating System ? Explain in details the different services provided by the Operating System.

Q.37 What is process scheduling & process scheduler? Differentiate between Long term scheduler Short-term scheduler & Mid-term scheduler with diagram . Also discuss the job queue , Ready Queue & Device Queue.

Q.38 What is Fragmentation? Differentiate between External & Internal fragmentation with example.

Q.5 In Unix, Which system call creates the new process?
a) fork
b) Create
c) new
d) None of the mentioned

Q.6 Memory management technique in which system stores and retrieves data from secondary storage for use in main memory is called?
a) Fragmentation
b) Paging
c) Mapping
d) None of the mentioned

Q.7 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.8 The processes that are residing in main memory and are ready and waiting to execute are kept on this called_____
a) job queue b) ready queue
c) execution queue d) process queue

Q.9 The _____swaps processes in and out of the memory.
a) Memory manager b) CPU
c) CPU manager d) User

Q.10 _____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) Segmentation d) Swapping

SECTION-B

Note: Objective type questions. All questions are compulsory. 10x1=10

Q.11 What is operating system
Q.12 Define GUI
Q.13 What is the difference between process and programs?
Q.14 What is virtual memory?
Q.15 What is Process Control Block?
Q.16 What is deadlock?
Q.17 What is fragmentation?
Q.18 What is file?
Q.19 What is spooling?
Q.20 What is the difference between internal commands and external commands?

SECTION-C

Note: Short answer type questions. Attempt any twelve questions out of fifteen questions. 12x5=60

Q.21 What is interrupt? How it is handled by OS
Q.22 What is Short-term scheduler(CPU scheduler) describes with diagram
Q.23 Differentiate between Shortest Job first (SJF) scheduling and Shortest Remaining Time Next (SRTN) scheduling.
Q.24 Define process. Draw the process life cycle & explain in briefly.
Q.25 What is Preemptive CPU scheduling? How it is different from Non Preemptive CPU scheduling.
Q.26 Explain deadlock detection & recovery.
Q.27 Write a short note on device controller.
Q.28 Define Memory mapped I/O