



BRAINWARE UNIVERSITY

Term End Examination 2021 - 22

Programme – Diploma in Computer Science & Engineering

Course Name – Operating System

Course Code - DCSE403

(Semester IV)

Time allotted : 1 Hrs.25 Min.

Full Marks : 70

[The figure in the margin indicates full marks.]

Group-A

(Multiple Choice Type Question)

1 x 70=70

Choose the correct alternative from the following :

- (1) If a process fails, most operating system write the error information to a
 - a) Log file
 - b) New file
 - c) Another running process
 - d) None of these
- (2) Multiprocessing system gives a
 - a) Small system
 - b) Tightly coupled system
 - c) loosely coupled system
 - d) Macro Sysem
- (3) What is the function of FORK() in Kernel
 - a) To create child process
 - b) To create processor
 - c) To create deadlock
 - d) To create TLB
- (4) Booting means
 - a) Restarting a computer
 - b) Shutting down
 - c) Removing error
 - d) Installing program
- (5) Process is
 - a) Program in Execution
 - b) Process control Block
 - c) Application software
 - d) None of these
- (6) Multiprocessor system is better than single processor in terms of
 - a) Increased Throughput
 - b) Expensive hardware
 - c) Operating system
 - d) Both a and b
- (7) Unix OS was developed by
 - a) Bell Labs
 - b) NASA
 - c) Verizon Systems
 - d) Kaspersky Labs
- (8) When a peripheral device needs immediate attention from the OS, it creates
 - a) Interrupt
 - b) Stack
 - c) Spool
 - d) Page file
- (9) key stroke or mouse click are referred to as
 - a) Interrupt
 - b) Tasks

- (24) The state of a process is defined by -----
- a) The final activity of the process
 - b) The activity to next be executed by the process
 - c) The current activity of the process
 - d) The activity just executed by the process
- (25) What is the degree of multiprogramming?
- a) The number of processes executed per unit time
 - b) The number of processes in the ready queue
 - c) The number of processes in the I/O queue
 - d) The number of processes in memory
- (26) When the process issues an I/O request
- a) It is placed in an I/O queue
 - b) It is placed in a waiting queue
 - c) It is placed in the ready queue
 - d) It is placed in the Job queue
- (27) The context of a process in the PCB of a process does not contain
- a) the value of the CPU registers
 - b) memory-management information
 - c) the process state
 - d) context switch time
- (28) Which of the following need not necessarily be saved on a context switch between processes?
- a) General purpose registers
 - b) Translation lookaside buffer
 - c) Program counter
 - d) All of these
- (29) Which process can be affected by other processes executing in the system?
- a) Co-operating process
 - b) Child process
 - c) Parent process
 - d) init process
- (30) Mutual exclusion can be achieved by the
- a) Mutex locks
 - b) Both mutex locks and binary semaphores
 - c) Binary semaphores
 - d) None of these
- (31) The interval from the time of submission of a process to the time of completion is termed as
- a) Waiting time
 - b) Response time
 - c) Turnaround time
 - d) Throughput
- (32) The request and release of resources are
- a) System calls
 - b) Special programs
 - c) Command-line statements
 - d) None of these
- (33) For mutual exclusion to prevail in the system
- a) The processor must be a uniprocessor rather than a multiprocessor
 - b) At least one resource must be held in a non sharable mode
 - c) There must be at least one resource in a sharable mode
 - d) None of these
- (34) The disadvantage of a process being allocated all its resources before beginning its execution is
- a) Low CPU utilization
 - b) Low resource utilization
 - c) Very high resource utilization
 - d) None of these
- (35) Which module gives control of the CPU to the process selected by the short-term scheduler?
- a) Dispatcher
 - b) Scheduler
 - c) Interrupt
 - d) None of these
- (36) Which one of the following can not be scheduled by the kernel?
- a) Kernel level thread
 - b) User level thread
 - c) Process
 - d) None of these
- (37) Messages sent by a process _____
- a) Have to be of a fixed size
 - b) Can be fixed or variable sized
 - c) Have to be a variable size
 - d) None of these
- (38) In the Zero capacity queue _____
- a) The queue can store at least one message
 - b) The sender keeps sending and the messages don't wait in the queue

- (52) The relocation register helps in _____
- a) Providing more address space to processes
b) A different address space to processes
c) To protect the address spaces of processes
d) None of these
- (53) Transient operating system code is code that _____
- a) Is not easily accessible
b) Stays in the memory always
c) Comes and goes as needed
d) Never enters the memory space
- (54) When memory is divided into several fixed sized partitions, each partition may contain
- a) Exactly one process
b) Multiple processes at once
c) At least one process
d) None of these
- (55) A solution to the problem of external fragmentation is _____
- a) Compaction
b) Smaller memory space
c) Larger memory space
d) None of these
- (56) The _____ is used as an index into the page table.
- a) Frame bit
b) Page offset
c) Page number
d) Frame offset
- (57) If a page number is not found in the TLB, then it is known as a _____
- a) TLB miss
b) Buffer miss
c) TLB hit
d) None of these
- (58) Each entry in a translation lookaside buffer (TLB) consists of _____
- a) Key
b) Bit value
c) Value
d) None of these
- (59) Consider a disk queue with requests for I/O to blocks on cylinders. 98 183 37 122 14 124 65 67
Considering FCFS (first cum first served) scheduling, the total number of head movements is, if the disk head is initially at 53 is?
- a) 600
b) 630
c) 620
d) 640
- (60) A deadlock can be broken by _____
- a) Abort one or more processes to break the circular wait
b) Preempt all resources from all processes
c) Abort all the process in the system
d) None of these
- (61) The switching of the CPU from one process or thread to another is called _____
- a) Process switch
b) Context switch
c) Task switch
d) All of these
- (62) RTP stands for _____
- a) Real time protocol
b) Real time transmission protocol
c) Real time transmission control protocol
d) Real time transport protocol
- (63) Data cannot be written to secondary storage unless written within a _____
- a) File
b) Directory
c) Swap space
d) Text format
- (64) Magnetic tape drives write data at a speed _____ disk drives.
- a) Much lesser than
b) Comparable to
c) Much faster than
d) None of these
- (65) In the _____ algorithm, the disk arm starts at one the end of the disk and moves toward the other end, servicing requests till the other end of the disk. At the other end, the direction is reversed and servicing continues.
- a) LOOK
b) C-SCAN
c) SCAN
d) C-LOOK

- (66) The CPU fetches the instruction from memory according to the value of _____
- a) Program counter
 - b) Status register
 - c) Instruction register
 - d) Program status word
- (67) Memory management is the 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 these
- (68) In the fixed size partition, the degree of multiprogramming is bounded by _____
- a) The number of partitions
 - b) The CPU utilization
 - c) The memory size
 - d) All of the these
- (69) _____ is the concept in which a process is copied into the main memory from the secondary memory according to the requirement.
- a) Segmentation
 - b) Demand paging
 - c) Swapping
 - d) Paging
- (70) A process refers to 5 pages, A, B, C, D, E in the order : A, B, C, D, A, B, E, A, B, C, D, E. If the page replacement algorithm is FIFO, the number of page transfers with an empty internal store of 3 frames is?
- a) 8
 - b) 10
 - c) 9
 - d) 7