Online Examinations (Even Sem/Part-I/Part-II Examinations 2020 - 2021

Course Name - –Operating Systems
Course Code -PCC-CS403

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Answer all the questions. Each question carry one mark.

9. 1.To access the services of operating system, the interface is provided by the _____

Mark only one oval.

- System calls
- API
- Library
- Assembly instructions

10. 2. By operating system, the resource management can be done via _____

Mark only one oval.

- time division multiplexing
- space division multiplexing
- time and space division multiplexing
- none of the mentioned

11. 3. If a process fails, most operating system write the error information to a _____

Mark only one oval.

- log file
- another running process
- new file
- none of the mentioned

12. 4. The Operating System is _____

Mark only one oval.

- Application Software
- System Software
- both Application Software and System Software
- None of this

13. 5. What is the function of Kernel?

Mark only one oval.

- Makes Communication between Hardware and Software
- Makes Communication between Application and Software Software.
- Makes interface for Users
- None of this

14. 6. Which one is the outermost component of Operating System?_____

Mark only one oval.

- Kernel
- Shell
- both Kernel and Shell
- None of this

15. 7.System structure of Linux is

Mark only one oval.

- Microsoft Windows
- UNIX
- Window Vista
- Monolithic Kernel

16. 8.What is the function of Shell?

Mark only one oval.

- ◯ Makes Communication between Hardware and Software
- ◯ Makes Communication between Application and Software Software.
- ◯ Makes interface for Users
- ◯ None of this

17. 9. Program resides into _____

Mark only one oval.

- ◯ Main memory
- ◯ Secondary Memory
- ◯ Both Main memoryand Secondary Memory
- ◯ none of the mentioned

18. 10.Process control by_____

Mark only one oval.

- ◯ OS Kernel
- ◯ Shell
- ◯ Both OS Kernel and Shell
- ◯ none of the mentioned

19. 11. Program is_____

Mark only one oval.

- Dynamic Concept
- Distributed Concept
- Real Time Concept
- Static Concept

20. 12.A process stack does not contain _____

Mark only one oval.

- Function parameters
- Local variables
- Return addresses
- PID of child process

21. 13.Which of the following does not interrupt a running process?

Mark only one oval.

- A device
- Timer
- Scheduler process
- Power failure

22. 14.In a multiprogramming environment _____

Mark only one oval.

- more than one process resides in the memory
- a single user can execute many programs at the same time
- the processor executes more than one process at a time
- the programs are developed by more than one person

23. 15. In a time-sharing operating system, when the time slot given to a process is completed, the process goes from the running state to the _____

Mark only one oval.

- Blocked state
- Ready state
- Suspended state
- Terminated state

24. 16. What is a medium-term scheduler?

Mark only one oval.

- It selects which process has to be brought into the ready queue
- It selects which process has to be executed next and allocates CPU
- It selects which process to remove from memory by swapping
- None of the mentioned

25. 17. Which algorithm is defined in Time quantum?

Mark only one oval.

- shortest job scheduling algorithm
- round robin scheduling algorithm
- priority scheduling algorithm
- multilevel queue scheduling algorithm

26. 18. Which one of the following can not be scheduled by the kernel?

Mark only one oval.

- kernel level threads
- user level thread
- process
- none of the mentioned

27. 19. Preemptive Shortest Job First scheduling is sometimes called _____

Mark only one oval.

- Fast SJF scheduling
- EDF scheduling – Earliest Deadline First
- HRRN scheduling – Highest Response Ratio Next
- SRTN scheduling – Shortest Remaining Time Next

28. 20.A solution to the problem of indefinite blockage of low – priority processes is _____

Mark only one oval.

- Starvation
- Wait queue
- Ready queue
- Aging

29. 21.Which of the following scheduling algorithms gives minimum average waiting time?

Mark only one oval.

- FCFS
- SJF
- Round – robin
- Priority

30. 22. Scheduling is done so as to _____

Mark only one oval.

- increase CPU utilization
- decrease CPU utilization
- keep the CPU more idle
- none of the mentioned

31. 23. Which one of the following is a synchronization tool?

Mark only one oval.

- thread
- pipe
- semaphore
- socket

32. 24. Process synchronization can be done on _____

Mark only one oval.

- hardware leve
- software level
- both hardware and software level
- none of the mentioned

33. 25. Semaphore is a/an _____ to solve the critical section problem.

Mark only one oval.

- hardware for a system
- special program for a system
- integer variable
- none of the mentioned

34. 26.The code that changes the value of the semaphore is _____

Mark only one oval.

- remainder section code
- non – critical section code
- critical section code
- none of the mentioned

35. 27. Each process Pi, i = 0,1,2,3,.....,9 is coded as follows. repeat P(mutex) {Critical Section} V(mutex) Forever The code for P10 is identical except that it uses V(mutex) instead of P(mutex). What is the largest number of processes that can be inside the critical section at any moment (the mutex being initialized to 1)?

Mark only one oval.

- 1
- 2
- 3
- None of the mentioned

36. 28. What are the two kinds of semaphores?

Mark only one oval.

- mutex & counting
- binary & counting
- counting & decimal
- decimal & binary

37. 29.What are Multithreaded programs?

Mark only one oval.

- lesser prone to deadlocks
- more prone to deadlocks
- not at all prone to deadlocks
- none of the mentioned

38. 30.Which one of the following is the deadlock avoidance algorithm?

Mark only one oval.

- banker's algorithm
- round-robin algorithm
- elevator algorithm
- karn's algorithm

39. 31.A problem encountered in multitasking when a process is perpetually denied necessary resources is called _____

Mark only one oval.

- deadlock
- starvation
- inversion
- aging

40. 32. To avoid deadlock _____

Mark only one oval.

- there must be a fixed number of resources to allocate
- resource allocation must be done only once
- all deadlocked processes must be aborted
- inversion technique can be used

41. 33.Swap space exists in _____

Mark only one oval.

- primary memory
- secondary memory
- Central Processing Unit
- none of the mentioned

42. 34.Which algorithm chooses the page that has not been used for the longest period of time whenever the page required to be replaced?

Mark only one oval.

- first in first out algorithm
- additional reference bit algorithm
- least recently used algorithm
- counting based page replacement algorithm

43. 35. Which of the following page replacement algorithms suffers from Belady's Anomaly?

Mark only one oval.

- Optimal replacement
- LRU
- FIFO
- Both optimal replacement and FIFO

44. 36.If no frames are free, _____ page transfer(s) is/are required.

Mark only one oval.

- one
- two
- three
- four

45. 37. When a page is selected for replacement, and its modify bit is set _____

Mark only one oval.

- the page is clean
- the page has been modified since it was read in from the disk
- the page is dirty
- the page has been modified since it was read in from the disk & page is dirty

46. 38. What is the Optimal page – replacement algorithm?

Mark only one oval.

- Replace the page that has not been used for a long time
- Replace the page that has been used for a long time
- Replace the page that will not be used for a long time
- None of the mentioned

47. 39. In virtual memory. the programmer _____ of overlays.

Mark only one oval.

- has to take care
- does not have to take care
- all of the mentioned
- none of the mentioned

48. 40.Virtual memory is normally implemented by _____

Mark only one oval.

- demand paging
- buses
- virtualization
- all of the mentioned

49. 41. What are the two methods of the LRU page replacement policy that can be implemented in hardware?

Mark only one oval.

- Counters
- RAM & Registers
- Stack & Counters
- Registers

50. 42.LRU page – replacement algorithm associates with each page the _____

Mark only one oval.

- time it was brought into memory
- the time of that page's last use
- page after and before it
- all of the mentioned

51. 43.For 3 page frames, the following is the reference string: 7 0 1 2 0 3 0 4 2 3 0 3 2 1 2 0 1 7 0 1 How many page faults does the LRU page replacement algorithm produce?

Mark only one oval.

- 10
- 15
- 11
- 12

52. 44.A swapper manipulates _____ whereas the pager is concerned with individual _____ of a process.

Mark only one oval.

- ◯ the entire process, parts
- ◯ all the pages of a process, segments
- ◯ the entire process, pages
- ◯ none of the mentioned

53. 45. A page fault occurs when?

Mark only one oval.

- ◯ a page gives inconsistent data
- ◯ a page cannot be accessed due to its absence from memory
- ◯ a page is invisible
- ◯ all of the mentioned

54. 46. When the page fault rate is low _____

Mark only one oval.

- ◯ the turnaround time increases
- ◯ the effective access time increases
- ◯ the effective access time decreases
- ◯ turnaround time & effective access time increases

55. 47. Logical memory is broken into blocks of the same size called _____

Mark only one oval.

- frames
- pages
- backing store
- none of the mentioned

56. 48. Every address generated by the CPU is divided into two parts. They are _____

Mark only one oval.

- frame bit & page number
- page number & page offset
- page offset & frame bit
- frame offset & page offset

57. 49.With paging there is no _____ fragmentation.

Mark only one oval.

- internal
- external
- either type of
- none of the mentioned

58. 50.The page table registers should be built with _____

Mark only one oval.

- very low speed logic
- very high speed logic
- a large memory space
- none of the mentioned

59. 51. For every process there is a _____

Mark only one oval.

- page table
- copy of page table
- pointer to page table
- all of the mentioned

60. 52. 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?_____

Mark only one oval.

- 600
- 620
- 630
- 640

61. 53.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? Considering SSTF (shortest seek time first) scheduling, the total number of head movements is, if the disk head is initially at 53 is?_____

Mark only one oval.

- 224
- 236
- 245
- 240

62. 54. In the _____ algorithm, the disk head moves from one end to the other, servicing requests along the way. When the head reaches the other end, it immediately returns to the beginning of the disk without servicing any requests on the return trip._____

Mark only one oval.

- LOOK
- SCAN
- C-SCAN
- C-LOOK

63. 55.The data-in register of I/O port is _____

Mark only one oval.

- Read by host to get input
- Read by controller to get input
- Written by host to send output
- Written by host to start a command

64. 56. Function of Kernel

Mark only one oval.

- Makes Communication between Hardware and Software
- Makes Communication between Application and Software Software.
- Makes interface for Users
- None of this

65. 57.Multiprocessing system provides

Mark only one oval.

- Small system
- ightly coupled system
- loosely coupled system
- Macro system

66. 58. Types of OS are

Mark only one oval.

- Batch System and Multiprocessor
- Desktop and Cluster System
- Real Time and Distributed
- All in the above

67. 59.A process can be terminated due to

Mark only one oval.

- normal exit
- fatal error
- killed by another process
- all of the mentioned

68. 60. A process stack does not contain

Mark only one oval.

- Function parameters
- Local variables
- Return addresses
- PID of child process

69. 61. The code that changes the value of the semaphore is _____

Mark only one oval.

- remainder section code
- non – critical section code
- critical section code
- none of these

70. 62. When several processes access the same data concurrently and the outcome of the execution depends on the particular order in which the access takes place, is called?

Mark only one oval.

- dynamic condition
- race condition
- essential condition
- critical condition

71. 63. The FCFS algorithm is particularly troublesome for _____

Mark only one oval.

- time sharing systems
- multiprogramming systems
- multiprocessor systems
- operating systems

72. 64. What is a short-term scheduler?

Mark only one oval.

- It selects which process has to be brought into the ready queue
- It selects which process has to be executed next and allocates CPU
- It selects which process to remove from memory by swapping
- None of these

73. 65. The address of the next instruction to be executed by the current process is provided by the _____

Mark only one oval.

- CPU registers
- Program counter
- Process stack
- Pipe

74. 66. What is inter process communication?

Mark only one oval.

- communication within the process
- communication between two process
- communication between two threads of same process
- none of these

75. 67. In Unix, Which system call creates the new process?

Mark only one oval.

- fork
- create
- new
- none of the mentioned

76. 68. Process is_____

Mark only one oval.

- Dynamic Concept
- Distributed Concept
- Real Time Concept
- Static Concept

77. 69. What is theft of service?

Mark only one oval.

- This type of violation involves unauthorized reading of data
- This violation involves unauthorized modification of data
- This violation involves unauthorized destruction of data
- This violation involves unauthorized use of resources

78. 70. What is Trojan horse?

Mark only one oval.

- It is a useful way to encrypt password
- It is a user which steals valuable information
- It is a rogue program which tricks users
- It's a brute force attack algorithm