

Roll No.

Total Pages: _ _

Paper ID: CS005 Course Code: CCCS-1-05T

Examination (January - 2024)
Certificate Programme in Cyber Security

Operating System

Time Allowed: 2 Hours

Max. Marks: 70

Instructions for the Students

1. The question paper shall consist of 70 Multiple Choice questions.
2. All questions are compulsory. Each question carries 1 mark.
3. There will be no negative marking.

Q1. Which of the following is not an operating system? a) Windows b) Linux c) Oracle d) DOS	Q2. Which of the following is the extension of Notepad? a) .txt b) .xls c) .bmp d) .ppt
Q3. What is the maximum length of the filename in DOS? a) 4 b) 5 c) 8 d) 12	Q4. What else is a command interpreter called? a) prompt b) command c) kernel d) shall
Q5. When was the first operating system developed? a) 1948 b) 1949 c) 1950 d) 1951	Q6. What is the full name of FAT? a) File attribute table b) File allocation table c) Font attribute table d) Format allocation table
Q7. BIOS is used? a) By operating system b) By compiler c) By interpreter d) By application software	Q8. What is meant by Booting in the operating system? a) Restarting computer b) Install the program c) To scan d) To turn off
Q9. When does page fault occur? a) The page is present in memory. b) The deadlock occurs. c) The page does not present in memory. d) The buffering occurs.	Q10. Banker's algorithm is used? a) To prevent deadlock b) To deadlock recovery c) To solve the deadlock d) None of these

<p>Q11. When you delete a file on your computer, where does it go?</p> <ul style="list-style-type: none">a)Recycle binb)Hard diskc)Taskbard)None of these	<p>Q12. Which is the Linux operating system?</p> <ul style="list-style-type: none">a)Private operating systemb)Windows operating systemc)Open-source operating systemd)None of these
<p>Q13.What is the full name of the DSM?</p> <ul style="list-style-type: none">a)Direct system moduleb)Direct system memoryc)Demoralized system memoryd)Distributed shared memory	<p>Q14. What is the full name of the IDL?</p> <ul style="list-style-type: none">a)Interface definition languageb)Interface direct languagec)Interface data libraryd)None of these
<p>Q15. Which of the following is a single-user operating system?</p> <ul style="list-style-type: none">a)Windowsb)MACc)Ms-Dosd)None of these	<p>Q16. The size of virtual memory is based on which of the following?</p> <ul style="list-style-type: none">a)CPUb)RAMc)Address busd)Data bus
<p>Q17. If a page number is not found in the translation lookaside buffer, then it is known as a?</p> <ul style="list-style-type: none">a)Translation Lookaside Buffer missb)Buffer missc)Translation Lookaside Buffer hitd)All of the mentioned	<p>Q18. Which of the following is not application software?</p> <ul style="list-style-type: none">a)Windows 7b)WordPadc)Photoshopd)MS-excel
<p>Q19. Which of the following supports Windows 64 bit?</p> <ul style="list-style-type: none">a)Window XPb)Window 2000c)Window 1998d)None of these	<p>Q20. Which of the following windows does not have a start button?</p> <ul style="list-style-type: none">a)Windows 7b)Windows 8c)Windows XPd)None of these
<p>Q21. Which of the following operating systems does not support more than one program at a time?</p> <ul style="list-style-type: none">a)Linuxb)Windowsc)MACd)DOS	<p>Q22. Which of the following is a condition that causes deadlock?</p> <ul style="list-style-type: none">a)Mutual exclusionb)Hold and waitc)Circular waitd)All of these

<p>Q23. Who provides the interface to access the services of the operating system?</p> <p>a)API b)System call c)Library d)Assembly instruction</p>	<p>Q24. Where are placed the list of processes that are prepared to be executed and waiting?</p> <p>a)Job queue b)Ready queue c)Execution queue d)Process queue</p>
<p>Q25. Who among the following can block the running process?</p> <p>a)Fork b)Read c)Down d)All of these</p>	<p>Q26. Which of the following does not interrupt the running process?</p> <p>a)Timer interrupt b)Device c)Power failure d)Scheduler process</p>
<p>Q27. What is Microsoft Windows?</p> <p>a)Operating system b)Graphics program c)Word Processing d)Database program</p>	<p>Q28. Which of the following is a group of programs?</p> <p>a)Accessories b)Paint c)Word d)All of above</p>
<p>Q29. Which of the following is an example of a Real Time Operating System?</p> <p>a)MAC b)MS-DOS c)Windows 10 d)Process Control</p>	<p>Q30. Which of the following operating systems do you use for a client-server network?</p> <p>a)Mac b)Linux c)Windows XP d)Windows 2000</p>
<p>Q31. What is a deadlock in the context of operating systems?</p> <p>a)A system crash b)A situation where two or more processes are unable to proceed because each is waiting for the other to release a resource c)A process termination d)A system hang</p>	<p>Q32. Which of the following is a necessary condition for deadlock to occur?</p> <p>a)Mutual exclusion b)Hold and wait c)No preemption d)Circular wait</p>
<p>Q33. What is a deadlock in an operating system?</p> <p>a)Efficient system state b)Process termination c) Resource conflict d) System reboot</p>	<p>Q34. Which of the following is a necessary condition for deadlock occurrence?</p> <p>a)Mutual exclusion b)Hold and wait c)No preemption d)All of the above</p>
<p>Q35. What is the primary goal of deadlock prevention?</p> <p>a)Allow deadlock to occur and then resolve it b)Detect and recover from deadlock c)Avoid the occurrence of deadlock d)Minimize the impact of deadlock</p>	<p>Q36. What is Circular Wait in the context of deadlocks?</p> <p>a)Processes wait for resources in a circular manner b)Processes wait for resources in a linear manner c)Processes never wait for resources d)Processes wait for resources without a specific order</p>

<p>Q37. In the context of deadlock prevention, what does the term "preemption" mean?</p> <p>a) Terminating a process b) Temporarily seizing a resource from a process c) Allowing processes to wait indefinitely d) Rebooting the system</p>	<p>Q38. What is the drawback of the Banker's algorithm in terms of resource utilization?</p> <p>a) Low efficiency b) High efficiency c) Overutilization of resources d) Underutilization of resources</p>
<p>Q39. Which deadlock recovery strategy involves terminating all processes and then restarting them in a specific order?</p> <p>a) Process termination b) Resource preemption c) Process restart d) System reboot</p>	<p>Q40. Which of the following is a drawback of the deadlock detection and recovery approach?</p> <p>a) High overhead b) Low accuracy c) Limited applicability d) No applicability</p>
<p>Q41. What is the primary purpose of memory management in an operating system?</p> <p>a) File organization b) Process scheduling c) Resource allocation d) I/O management</p>	<p>Q42. What is the role of the Memory Management Unit (MMU) in a computer system?</p> <p>a) Allocating CPU time b) Managing disk storage c) Translating virtual addresses to physical addresses d) Handling interrupts</p>
<p>Q43. What is the function of a page table in virtual memory systems?</p> <p>a) Translation of virtual addresses to physical addresses b) Storage of program instructions c) Managing disk space d) Allocating CPU time</p>	<p>Q44. What is the purpose of a TLB (Translation Lookaside Buffer) in memory management?</p> <p>a) To store recently used program instructions b) To speed up address translation by caching recent translations c) To manage disk space d) To allocate main memory to processes</p>
<p>Q45. Which memory management scheme allows processes to be swapped in and out of main memory?</p> <p>a) Paging b) Segmentation c) Fragmentation d) Swapping</p>	<p>Q46. What is fragmentation in memory management?</p> <p>a) Efficient use of memory b) Wasting of CPU time c) Unnecessary paging d) Division of memory into small, non-contiguous segments</p>
<p>Q47. What is the primary advantage of demand paging in virtual memory systems?</p> <p>a) Faster execution of programs b) Reduced page table size c) Better memory utilization d) Elimination of fragmentation</p>	<p>Q48. What is a memory leak in the context of memory management?</p> <p>a) A hole in the page table b) Wasting of CPU time c) Failure to release allocated memory, leading to a gradual loss of available memory d) Excessive paging</p>
<p>Q49. What is the purpose of the swapping technique in memory management?</p> <p>a) To translate virtual addresses to physical addresses b) To speed up address translation with a cache c) To move entire processes in and out of main memory d) To manage disk space</p>	<p>Q50. In a multiprogramming environment, what is the role of the memory manager?</p> <p>a) Allocating CPU time b) Allocating main memory to processes c) Managing disk space d) Handling interrupts</p>
<p>Q51. Which command is used to display the disk space usage on a Linux system?</p> <p>a) df</p>	<p>Q52. What is the primary purpose of the "ls" command in Linux?</p> <p>a) List files and directories</p>

<p>b)du c)ls d)disk</p>	<p>b)Locate files c)Remove files d)Create directories</p>
<p>Q53. In Linux, what is the purpose of the /etc/passwd file? a)System configuration b)User account information c>Password storage d)Log files</p>	<p>Q54. Which command is used to change the current working directory in Linux? a)cd b)pwd c)dir d)chdir</p>
<p>Q55. What is the purpose of the "chmod" command in Linux? a)Change file ownership b)Change file permissions c)Change file content d) Change file type</p>	<p>Q56. What is the role of the "grep" command in Linux? a)Copy files b)Search for patterns in files c)Move files d>Delete files</p>
<p>Q57.Which command is used to compress files in Linux? a)zip b)tar c)gzip d)compress</p>	<p>Q58. What is the purpose of the "ps" command in Linux? a)Print system information b>Show current processes c)Pause processes d)Process scheduling</p>
<p>Q59. What is the function of the "mount" command in Linux? a)Display system information b)Mount a file system c)Change file permissions d)Create a new directory</p>	<p>Q60. Which directory is the home directory for the root user in Linux? a) /home b)/root c) /user d)/admin</p>
<p>Q61.What is the purpose of a Shell script in an operating system? a)To manage hardware resources b)To automate repetitive tasks c)To install software packages d)To create user accounts</p>	<p>Q62. Which command is used to execute a Shell script? a)run b)exec c)source d)bash</p>
<p>Q63. How do you comment a single line in a Shell script? a)// Comment b)/* Comment */ c)# Comment d)-- Comment</p>	<p>Q64. What is the purpose of the 'chmod' command in Shell scripting? a)Change module b)Change mode c)Change directory d)Change file</p>
<p>Q65. In Shell scripting, what does the '\$#' symbol represent? a)Script name b)Number of arguments c)Current process ID</p>	<p>Q66. How do you read user input in a Shell script? a)input() b)read c)scan d)get</p>

d)Home directory	
Q67. Which operator is used for string concatenation in Shell scripting? a)+ b)& c). . d). ,	Q68. Which command is used to redirect the output of a command to a file in Shell scripting? a)>> b)< c)<< d)>
Q69. What is the purpose of the 'grep' command in Shell scripting?*	Q70. What does the '\$\$' symbol represent in Shell scripting?
a)Search for files b)Search for text patterns in files c)Copy files d)Move files	a)Special variable for script name b)Special variable for script arguments c)Process ID of the current script d)Home directory