## SHRI MADHWA VADIRAJA INSTITUTE OF TECHNOLOGY & MANAGEMENT, BANTAKAL

| Department: Computer Science and Engineering | Quiz-1 | Academic Year: 2022-23 |
|---|---|---|
| Class: 4th Semester CSE | Course: Operating Systems | Course Code: 21CS44 |
| Date: 04-09-2023 | | Max. Marks: 10 |

**Note:** Submit the Quiz on or before 7.15 PM on 04-09-2023

| Q. No. | Question | Marks | BL* | CO* | TLO* |
|---|---|---|---|---|---|
| | **PART A** | | | | |
| 1 | Which of the following is a single-user operating system?<br>MAC<br>Windows<br>**Ms-Dos**<br>None of these | 1 | L2 | 1 | 1.1 |
| 2 | Which of the following is not application software?<br>WordPad<br>**Windows 7**<br>Photoshop<br>MS-excel | 1 | L2 | 1 | 1.1 |
| 3 | Which system call can be used by a parent process to create a child process?<br>Wait()<br>exit()<br>**fork()**<br>get() | 1 | L2 | 1 | 1.2 |
| 4 | A Process Control Block(PCB) does not contain which of the following?<br>Code<br>Stack<br>**Bootstrap program**<br>Data | 1 | L2 | 1 | 1.3 |
| 5 | The state of a process is defined by _____<br>The final activity of the process<br>The activity just executed by the process<br>The activity to next be executed by the process<br>**The current activity of the process** | 1 | L2 | 1 | 1.3 |
| 6 | What is the objective of multiprogramming?<br>Have a process running at all-time<br>Have multiple programs waiting in a queue ready to run<br>**To increase CPU utilization**<br>None of the mentioned | 1 | L2 | 1 | 1.1 |
| 7 | 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 _____<br>Blocked state<br>**Ready state**<br>Suspended state<br>Terminated state | 1 | L2 | 1 | 1.3 |
| 8 | Which of the following statement is True regarding Context Switch<br>Context switch times are highly dependent on hardware support<br>Context switch time is pure overhead<br>Context switch does state save and state restore of processes.<br>**All the above** | 1 | L2 | 1 | 1.3 |
| 9 | Suppose that a process is in "Blocked" state waiting for some I/O service. When the service is completed, it goes to the _____<br>Running state<br>**Ready state**<br>Suspended state | 1 | L2 | 1 | 1.3 |

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| 10 | ____ enables users to run programs that are larger than actual physical memory. <br> secondary memory <br> primary memory <br> **virtual memory** <br> cache | 1 | L2 | 1 | 1.1 |

<br><br>

**BL\* = Bloom's Taxonomy**  **CO\* = Course Outcome**  **TLO\* = Topic Level Outcome**

<br><br>

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## SHRI MADHWA VADIRAJA INSTITUTE OF TECHNOLOGY & MANAGEMENT, BANTAKAL

| Department: Computer Science and Engineering | Quiz-2 | Academic Year: 2022-23 |
|---|---|---|
| Class: 4th Semester CSE | Course: Operating Systems | Course Code: 21CS44 |
| Date: 17-09-2023 | | Max. Marks: 10 |

**Note:** Submit the Quiz on or before 7.15 PM on 17-09-2023

| Q. No. | Question | Marks | BL* | CO* | TLO* |
|---|---|---|---|---|---|
| | **PART A** | | | | |
| 1 | What is an operating system?<br>Collection of programs that manages hardware resources<br>System service provider to the application programs<br>Interface between the hardware and application programs<br>**All of the mentioned** | 1 | L2 | 1 | 1.1 |
| 2 | What is the main function of the command interpreter?<br>**To get and execute the next user-specified command**<br>To provide the interface between the API and application program<br>To handle the files in operating system<br>None of the mentioned | 1 | L2 | 1 | 1.2 |
| 3 | Which of the following does not interrupt a running process?<br>A device<br>Timer<br>**Scheduler process**<br>Power failure | 1 | L2 | 1 | 1.3 |
| 4 | If all processes are I/O bound, the ready queue will almost always be _____ and the Short term Scheduler will have a _____ to do.<br>Full, little<br>Full, lot<br>**Empty, little**<br>Empty, lot | 1 | L2 | 2 | 2.2 |
| 5 | _____ abstracts the hardware of a single computer into several different execution environments.<br>Time sharing systems<br>Mutliprocessor systems<br>Multiprogramming systems<br>**None of the above** | 1 | L2 | 1 | 1.2 |
| 6 | ____ enables users to run programs that are larger than actual physical memory.<br>secondary memory<br>primary memory<br>**virtual memory**<br>cache | 1 | L2 | 1 | 1.1 |
| 7 | To access the services of operating system, the interface is provided by the.<br>**System calls**<br>Command Interpreter<br>Library<br>Assembly instructions | 1 | L2 | 1 | 1.2 |
| 8 | The long term scheduler controls the _____<br>CPU<br>Memory<br>**Degree of multiprogramming**<br>CPU bound processes | 1 | L2 | 2 | 2.2 |
| 9 | Executable file is an _____<br>**Passive entity**<br>Active entity | 1 | L2 | 1 | 1.3 |

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| | None of the above | | | | |
|---|---|---|---|---|---|
| 10 | Which one of the following is not true?<br>kernel is the program that constitutes the central core of the operating system<br>kernel is the first part of operating system to load into memory during booting<br>**kernel is made of various modules which can not be loaded in running operating system**<br>kernel remains in the memory during the entire computer session | 1 | L2 | 1 | 1.1 |

**BL\* = Bloom's Taxonomy**     **CO\* = Course Outcome**     **TLO\* = Topic Level Outcome**

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## SHRI MADHWA VADIRAJA INSTITUTE OF TECHNOLOGY & MANAGEMENT, BANTAKAL

| Department: Computer Science and Engineering | Assignment-II | Academic Year: 2022-23 |
|---|---|---|
| Class: IV sem A & B | Course: Operating Systems | Course Code: 21CS44 |
| Date: 04-09-2023 | | Max. Marks: 50 |

*Note: Write the answers for all the questions.*

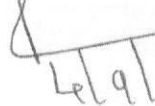| Q. No. | Question | Marks | PI* | BL* | CO* |
|---|---|---|---|---|---|
| 1. | With a neat diagram, explain the components of the LINUX system. | 10 | 5.1.1 | L2 | CO5 |
| 2. | Explain different IPC mechanisms available in LINUX. | 10 | 5.1.1 | L2 | CO5 |
| 3. | Describe the different LINUX kernel modules. | 10 | 5.1.1 | L2 | CO5 |
| 4. | Explain Access Matrix with example. | 10 | 5.1.1 | L2 | CO5 |
| 5. | Suppose that a disk drive has 5,000 cylinders, numbered 0 to 4999. The drive is currently serving a request at cylinder 143, and the previous request was at cylinder 125. The queue of pending requests, in FIFO order, is: 86,1470,913,1774,948,1509,1022,1750,130 Starting from the current head position, what is the total distance (in cylinders) that the disk arm moves to satisfy all the pending requests for each of the following disk-scheduling algorithms? a. FCFS  b. SSTF  c. SCAN  d. LOOK  e. C-LOOK | 10 | 2.2.4 | L3 | CO5 |

BL* Bloom's Taxonomy Level;      CO* Course Outcome; PI- Performance Indicator

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