

Operating Systems MidTerm Exam

| Student Name | |
|--------------|------|
| Duration | 1h20 |

Instructions

Fill all questions from 1 to 20 (Generic Section)

Fill all questions from 21 to 30 (Linux Section)

Fill all questions from 31 to 40 (MacOS Section) **OR** from 41 to 50 (Windows Section)



| 1 - What is the relationship between threads and processes? | | |
|--|--|--|
| A processes is a container for threads | ○ Threads is a container for processes | |
| ○ Threads and processes are not related | ○ None of the above | |
| 2 - Threads are cheaper to context switch than processes | | |
| ○ True | ○ False | |
| 3 - Main memory is also known as | | |
| ○ Single-user memory | ○ Finite memory | |
| Random access memory | ○ Virtual memory | |
| 4 - In demand paging, when an excessive number of pages are moved back and forth between main memory and secondary storage, it is called | | |
| ○ Paging | ○ Faulting | |
| ○ Trashing | Swapping | |



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| 5 - The efficiency of a batch system is measured in, which is the number of jobs completed in a given amount of time. | | |
|---|-------------------|--|
| ○ Processes | ○ Throughput | |
| ○ Threads | ○ Turnaround time | |
| 6 - Threads are cheaper to create than processes | | |
| ○ True | ○ False | |
| 7 - The Process Scheduler assigns the CPU to execute the processes for those jobs placed on the queue by the Job Scheduler. | | |
| ○ WAITING | ○ PROCESS | |
| ○ NEXT | ○ READY | |
| 8 - A(n) is created by a process, and it can be scheduled and executed independently of its parent process. | | |
| ○ Thread | ○ Instruction Set | |
| ○ Program | ○ Mini-Process | |



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| 9 are special files with listings of filenames and their attributes. | | |
|---|--------------------------------------|--|
| ○ Database | ○ Programs | |
| ○ Directories | ○ Data Files | |
| 10 - Cooperating processes need Inter-Process communication (IPC) | | |
| ◯ True | ○ False | |
| 11 of memory is performed by the operating system to reclaim fragmented | | |
| sections of the memory space. | | |
| ○ Deallocation | ○ Compaction | |
| ○ Redirection | ○ Reallocation | |
| 12 – Inter-Process Communication (IPC) Mechanisms/techniques are: | | |
| ○ Signal, Pipes and Threads | O Pipes, signals and message passing | |
| Message Passing, Signals and Threads | ○ Threads, pipes and message passing | |



| 13 - The major objective of process cooperation include: | | |
|---|----------------------------|--|
| ○ Information Sharing | ○ Computation Speedup | |
| ○ Modularity | ○ All of the above | |
| 14 - Signals are used in UNIX systems to notify a process that a particular event has occurred. | | |
| ○ True | ○ False | |
| 15 - Type of Multi-Threading Levels: | | |
| ○ User-Level Threads (ULT) | ○ Hybrid ULT/KLT Approach | |
| ○ Kernel-Level Threads (KLT) | ○ All of the above | |
| 16 – What is A Three-state Process Model ? | | |
| Running-Blocked-Waiting | ○ Ready-Running-Terminated | |
| ○ Ready-Running-Waiting | ○ None of the above | |



| 17 - Example of Threads Implementation: | | |
|---|------------------------|--|
| ○ Windows Threads | O POSIX Threads | |
| ◯ Java Threads | ○ All of the above | |
| 18 - PTE means Page Thread Entry? | | |
| ○ True | ○ False | |
| 19 - What does it mean MMU? | | |
| Memory Management Usage | Memory Management Unit | |
| Memory Management User | ○ None of the above | |
| 20 – Which types of semaphores ? | | |
| ○ Full | ○ Empty | |
| ○ Mutex | ○ All of the above | |



L I N U X

| 21 - Command to list files: | | |
|--|---------|--|
| ○Is | ○ grep | |
| ○ list | ∫ find | |
| 22 - The command to help in Linux is "mann": | | |
| ◯ True | ○ False | |
| 23 - How can you view what file systems are mounted in Linux ? | | |
| □ df -h | □ Is | |
| □ tar | □ mount | |
| 24 - How can you archive in Linux ? | | |
| gzip | ○ zip | |
| ○ compress | ◯ tar | |



L I N U X

| 25 - How can you compress in Linux ? | | |
|--|--------------------|--|
| ○ zip | ○ compress | |
| gzip | ○ All of the above | |
| 26 - Which command could you use to show the list of processes in Tree format? | | |
| □ ps -e f | □ pstree | |
| □ ps -ef | □ ps aux | |
| 27 - Which command could you use to delete a directory? | | |
| □ rmdir | □ rm | |
| □ del | □ rm -rf | |



L I N U X

| 28 - What does it mean the next file permission "644" ? | | |
|---|----------|--|
| rwxrwx | ○_x_x_x | |
| Orw_rr | Orw_rw_ | |
| 29 - Which command must you use to search file in your drive? | | |
| ○ls | ∫ find | |
| ○ help | ○ search | |
| 30 - Which command must you use to see the information by page? | | |
| ○ cat | ○ page | |
| ○ more | ◯ head | |



A C O

| 31 - Command to list files: | | |
|--|--------------------|--|
| ○ls | ○ grep | |
| ○ list | ∫ find | |
| 32 - The next command "ps –e f" is working on MacOS: | | |
| ○ True | ○ False | |
| 33 - Which command must you use to check CPU Info? | | |
| □ mount | □ Is | |
| □ tar | □ sysctl | |
| 34 - Which tool or command could you use to edit a file? | | |
| ○ vi | ○ notes | |
| ○ textedit | ○ All of the above | |



M A C O S

| 35 - How can you compress in MacOS? | | |
|--|--------------------|--|
| ○ zip | ○ compress | |
| gzip | ○ All of the above | |
| 36 - Which tool or command could you use to show process? | | |
| □ top | ☐ activity monitor | |
| □ resmon | □ monitor | |
| 37 - Which command could you use to show the list of files in Tree format? | | |
| □ ps | □ pstree | |
| □ ps -ef | □ ps aux | |



A C O

| 38 - Which command could you use to delete a file? | | |
|--|----------|--|
| ○ rmdir | ○ rm | |
| ○ del | ○ delete | |
| 39 - Which command must you use to search file in your drive? | | |
| ○Is | ∫ find | |
| help | ○ search | |
| 40 - Which command must you use to check the directory where you are in the terminal screen? | | |
| ○ cat | ○ pwd | |
| ○ more | ○ls | |



W

| 41 - Command to list files: | | | |
|---|--------------------|--|--|
| ○Is | ○ dir | | |
| ○ list | ∫ find | | |
| 42 - The next command "mountvol" is working in Windows: | | | |
| ○ True | ○ False | | |
| 43 - Which tool or command could you use to show process? | | | |
| □ top | □ task manager | | |
| □ resmon | ☐ monitor | | |
| 44 - How can you compress in Windows ? | | | |
| gzip | ○ zip | | |
| ○ 7-zip | ○ All of the above | | |



W

| 45 - Which command/tool must you use to list process? | | |
|---|--------------------|--|
| ○ ps | ○ tasklist | |
| ○ls | ○ list | |
| 46 - Which tool could you use to show the processes list? | | |
| ☐ Process Monitor | ☐ Process Explorer | |
| ☐ Task Manager | ☐ Activity Monitor | |
| 47 - Which command could you use to delete a directory? | | |
| □ rmdir | □ rm | |
| □ del | □ delete | |



| | 48 - The command to compare files is "fc" | | |
|---|---|--|------------|
| SCHOOL OF HUMAN SCIENCES & TECHNOLOGY | ○ TRUE | | ○ FALSE |
| | | | |
| W | 49 - Which command must you use to search file in your drive? | | |
| I | ○ls | | ∫ find |
| N | dir | | search |
| D | | | |
| 0 | 50 - To create a new file you can use the command "type" | | and "type" |
| W | ○ TRUE | | ○ FALSE |
| S | | | |