

Program: BE Information Technology

Curriculum Scheme: Revised2016

Examination: Second YearSemester: IV

Course Code: ITC403 and Course Name: Operating System

Time: 1hour

Max. Marks: 50

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Note to the students: - All the Questions are compulsory and carry equal marks .

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| Q1. | Find The Average Wating time And Turn-around Time for the process : p1,p2,p3,p4 and the burst time is 8,1,3,2,6 and arrival time is 0,1,2,3,4 priority 3,1,2,3,4 using FcFs Scheduling. |
| Option A: | 5.5,6.6 |
| Option B: | 10.6,6.6 |
| Option C: | 25.75,19.2 |
| Option D: | 15.2,7.5 |
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| Q2. | File attributes consist of _____ |
| Option A: | name |
| Option B: | type |
| Option C: | identifier |
| Option D: | extension |
| | |
| Q3. | Every file is associated with a table which contains all possible information about a file, that table is called as _____ |
| Option A: | info table |
| Option B: | file table |
| Option C: | inode |
| Option D: | ps table |
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| Q4. | A process is moved to wait queue when I/O request is made with _____ |
| Option A: | non-blocking, I/O |
| Option B: | blocking I/O |
| Option C: | asynchronous I/O |
| Option D: | synchronous I/O |
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| Q5. | Process information in the current shell can be obtained by using |
| Option A: | kill |
| Option B: | bg |
| Option C: | ps |

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| Option D: | fg |
| Q6. | In ____ mode, the kernel runs on behalf of the user. |
| Option A: | user |
| Option B: | kernel |
| Option C: | Real |
| Option D: | Protected |
| Q7. | For reading input, which of the following system call is used? |
| Option A: | Write |
| Option B: | Open |
| Option C: | Read |
| Option D: | Change |
| Q8. | open system call returns the file descriptor as ____ |
| Option A: | Int |
| Option B: | Float |
| Option C: | Char |
| Option D: | Double |
| Q9. | In Unix, Which system call creates the new process? |
| Option A: | fork |
| Option B: | Create |
| Option C: | Open |
| Option D: | Close |
| Q10. | What is interposes communication? |
| Option A: | communication within the process |
| Option B: | communication between two process |
| Option C: | communication between two threads of same process |
| Option D: | Communication Between shells |
| Q11. | When several processes access the same data concurrently and the outcome of the execution depends on the order in which the access takes place, is called? |
| Option A: | dynamic condition |
| Option B: | race condition |
| Option C: | essential condition |
| Option D: | critical condition |
| Q12. | A semaphore is a shared integer variable _____ |
| Option A: | that can not drop below zero |
| Option B: | that can not be more than zero |
| Option C: | that can not drop below one |
| Option D: | that can not be more than one |
| Q13. | Given a priori information about the _____ number of resources of each type |

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| | that maybe requested for each process, it is possible to construct an algorithm that ensures that the system will never enter a deadlock state. |
| Option A: | minimum |
| Option B: | average |
| Option C: | maximum |
| Option D: | approximate |
| | |
| Q14. | A system is in a safe state only if there exists a _____ |
| Option A: | safe allocation |
| Option B: | safe resource |
| Option C: | safe sequence |
| Option D: | Safe State |
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| Q15. | The _____ table contains the base address of each page in physical memory. |
| Option A: | Process |
| Option B: | Memory |
| Option C: | Page |
| Option D: | Frame |
| | |
| Q16. | Paging increases the _____ time. |
| Option A: | Waiting |
| Option B: | Execution |
| Option C: | Context switch |
| Option D: | Opening file |
| | |
| Q17. | Which algorithm of disk scheduling selects the request with the least seek time from the current head positions? |
| Option A: | SSTF |
| Option B: | FCFS |
| Option C: | SCAN |
| Option D: | LOOK |
| | |
| Q18. | The set of tracks that are at one arm position make up a _____ |
| Option A: | Magnetic disk |
| Option B: | Hard disk |
| Option C: | cylinders |
| Option D: | ssd |
| | |
| Q19. | Which of the following is major part of time taken when accessing data on the disk? |
| Option A: | Settle time |
| Option B: | Rotational latency |
| Option C: | Seek time |
| Option D: | Waiting time |
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| Q20. | Normally user programs are prevented from handling I/O directly by I/O |

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| | instructions in them. For CPUs having explicit I/O instructions, such I/O protection is ensured by having the I/O instructions privileged. In a CPU with memory mapped I/O, there is no explicit I/O instruction. Which one of the following is true for a CPU with memory mapped I/O? |
| Option A: | I/O protection is ensured by operating system routine(s) |
| Option B: | I/O protection is ensured by a hardware trap |
| Option C: | I/O protection is ensured during system configuration |
| Option D: | I/O protection is not possible |
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| Q21. | Which of the following is not a part of all the versions of UNIX? |
| Option A: | Kernel |
| Option B: | Shell |
| Option C: | GUI |
| Option D: | System call |
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| Q22. | A Process Control Block(PCB) does not contain which of the following? |
| Option A: | Code |
| Option B: | Stack |
| Option C: | data |
| Option D: | Boot strap |
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| Q23. | Which of the following is not the state of a process? |
| Option A: | new |
| Option B: | ready |
| Option C: | running |
| Option D: | old |
| | |
| Q24. | In priority scheduling algorithm, when a process arrives at the ready queue, its priority is compared with the priority of _____ |
| Option A: | All process |
| Option B: | Currently running Process |
| Option C: | Parent |
| Option D: | child |
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| Q25. | _____ replacement allows each process to only select from its own set of allocated frames. |
| Option A: | Local |
| Option B: | Universal |
| Option C: | public |
| Option D: | global |