Quizizz

NAME : _____

CLASS : _____

DATE : _____

OS-S1-Objective

15 Questions

1. Turnaround time is

☐ a) Actual execution time

☐ b) Actual execution time plus time spent waiting for resources

☐ c) Time between submission of a process & the first response

☐ d) All of the above

2. Optimization criteria achieved by good scheduling consists of

☐ a) Maximum CPU Utilization & Maximum Throughput

☐ b) Minimum Turnaround time

☐ c) Minimum Waiting time

☐ d) All of the above

3. Preemptive Scheduling means

☐ a) The currently running process may be interrupted and moved to ready state by Operating System

☐ b) If a process is in running state, it stays in that state until it terminates or blocks itself

☐ c) To keep track of long processes

☐ d) None of the above

4. Waiting time is

☐ a) The amount of time that a process spends in the ready queue

☐ b) The time of job submission to the time of job completion

☐ c) The amount of time that a process spends in the execution state

5. Saving the state of the old process and loading the saved state of the new process is called

☐ a) Multi programming
☐ b) Context Switch
☐ c) Time sharing
☐ d) None of the above

6. The principle objective of a time-sharing, multiprogramming system is to

☐ a) Maximize response time
☐ b) Maximize processor use
☐ c) Provide exclusive access to hardware
☐ d) Minimize turnaround time

7. What is the advantage of multiprocessor systems?

☐ a) Increased modularity
☐ b) Increased reliability
☐ c) Increased security
☐ d) None of above

8. Which one of the following is not a CPU scheduling criterion?

☐ a) CPU utilization
☐ b) Burst time
☐ c) Throughput
☐ d) Response time

9. The scheduler that brings processes into main memory and swaps them out on to the disk as needed, is referred to as

☐ a) Short-term scheduler
☐ b) Long-term scheduler
☐ c) Medium-term scheduler
☐ d) None of the above

10. A process that has many short CPU bursts and large I/O request are known as

☐ a) CPU bound process
☐ b) I/O bound process
☐ c) I/O and CPU burst cycle
☐ d) None of the above

11. Which of the following statement is true about Long term scheduling?

- ☐ a) It controls degree of multiprogramming.
- ☐ b) It decides which available process will be executed by the processor
- ☐ c) (a) & (b)
- ☐ d) None of the above

12. DMA stands for

- ☐ a) Direct Manipulation Algorithm
- ☐ b) Dynamic Memory Allocation
- ☐ c) Data Memory Allocation
- ☐ d) Direct Memory Access

13. Privileged instructions are executed in

- ☐ a) User mode
- ☐ b) Kernel mode
- ☐ c) Dual mode
- ☐ d) Single mode

14. The SJF algorithm executes first the job

- ☐ a) that was last to enter the queue
- ☐ b) that was first to enter the queue
- ☐ c) with the least processor needs
- ☐ d) that has been in the queue already

15. According to our 5-state process model, a process can go from a waiting (blocked) state directly to a running state if the resource it is waiting on becomes available in a short period of time.

- ☐ a) True
- ☐ b) False

COMSATS University Islamabad, Lahore Campus

☑ Sessional-1 ☐ Sessional-II ☐ Terminal Examination – FALL 2020

Course Title:	Operating Systems			Course Code:	CSC322	Credit Hours:	3(2,1)
Course Instructor/s:	Dr. Hasan Jamal			Programme Name:	BS Computer Science		
Semester:		Batch:	Section:		Date:	22/10/2020	
Time Allowed:	**35 minutes**			**Maximum Marks:**		**10**	
Student's Name:				Reg. No.			

Important Instructions / Guidelines:

- Type your answers in this sheet and submit the assignment on Google Classroom
- No late submission allowed
- Any solution found to be copied would strictly result in zero marks

Question: **[6+2+2=10 marks]**

Assume that the following processes are the only processes in a computer system and that there are no input/output requests from all the given processes. Given the following arrival time, and burst time for each process, fill in the first table below to specify the time slots in which the given processes executed and the processes that are in ready queue at that stage. Compute the **response time and turnaround time for each process** when the FCFS CPU scheduling algorithm is used and fill in the second table below. Also determine the **average waiting time** of the system**.**

Process	Burst Time	Arrival time
P0	4	7
P1	2	10
P2	1	13
P3	3	6
P4	8	8
P5	6	0
P6	3	5
P7	4	2

Solution:

Time Duration	Process Running	List of all the processes in the ready queue
0 – 1		
1 – 2		
2 – 3		
3 – 4		
4 – 5		
5 – 6		
6 – 7		
7 – 8		
8 – 9		
9 – 10		
10 – 11		
11 – 12		
12 – 13		
13 – 14		
14 – 15		
15 – 16		
16 – 17		
17 – 18		
18 – 19		
19 – 20		
20 – 21		
21 – 22		
22 – 23		
23 – 24		
24 – 25		
25 – 26		
26 – 27		
27 – 28		
28 – 29		
29 – 30		
30 – 31		

Process	**Response Time**	**Turnaround Time**
P0		
P1		
P2		
P3		
P4		
P5		
P6		
P7		

Average Waiting Time =