

COMPUTER SCIENCE DEPARTMENT AL aL-BAYT UNIVERSITY		TIME ALLOWED: 50 MINUTES MAXIMUM MARKS: 20 MARKS
FIRST EXAM, FALL EXAMINATION 2018 (WRITE YOUR NAME AND YOUR ROLL NO. ON THE TOP IMMEDIATELY ON THE RECEIPT OF THIS QUESTION/ANSWER PAPER.)		OPERATING SYSTEM 901332
NAME _____ ROLL NO. _____		

Attempt the Following (Answer all—All questions carry EQUAL points)

Q1. Fill in the table below with the correct answer. Only answers in this table will be corrected. (10Mark)

Question No.	1	2	3	4	5	6	7	8	9	10
Answer										

1. The list of processes waiting for a particular I/O device is called a(n) _____.
 - A. standby queue
 - B. device queue
 - C. ready queue
 - D. interrupt queue

2. The state transition from READY to RUNNING happens when a process _____.
 - A. is interrupted
 - B. performs an I/O or event handling
 - C. completes an I/O or event handling
 - D. is dispatched by the scheduler

3. The state transition from WAITING to READY happens when a process _____.
 - A. is interrupted
 - B. performs an I/O or event handling
 - C. completes an I/O or event handling
 - D. is dispatched by the scheduler

4. The state transition from RUNNING to WAITING happens when a process _____.
 - A. is interrupted
 - B. performs an I/O or event handling
 - C. completes an I/O or event handling
 - D. is dispatched by the scheduler

5. Turnaround time refers to the amount of time _____.
 - A. that CPU utilization is minimized
 - B. needed to execute a particular process
 - C. a process has been waiting in the ready queue
 - D. it takes from when a request was submitted until the first action is produced

6. For a single-processor system _____.
 - A. processes spend long times waiting to execute
 - B. there will never be more than one running process
 - C. input-output always causes CPU slowdown
 - D. process scheduling is always optimal
7. The two modes of operation of an operating system are called _____.
 - A. process and kernel
 - B. ready and running
 - C. interrupt and system
 - D. kernel and user
8. Bootstrap programs must be provided using _____.
 - A. volatile memory
 - B. erasable-programmable memory
 - C. non-volatile ROM devices
 - D. special magnetic disk tracks
9. An I/O-bound process _____.
 - A. spends equal time seeking I/O operations and doing computational work
 - B. spends more of its time doing computational work than seeking I/O operations
 - C. spends more of its time seeking I/O operations than doing computational work
 - D. spends less of its time seeking I/O operations than doing computational work
10. A process control block should contain _____.
 - A. the process ID
 - B. locations to store register values
 - C. a list of all open files
 - D. All of these responses are correct

Answer the following questions using short and clear sentences please. Short answered are expected.

Q2. What is the main advantage of multiprogramming? (2 marks)

Q3. a. What are the four components of a process? (4 marks)

b. What are the possible states a process may be in.

Q4. What is the main advantage of the layered approach to system design? (5 Marks)

Q5. What is the purpose of interrupt? (1 Marks)