Saunday, November 4, 2018 3:00 pm-3:50 pm

COMPUTER SCIENCE DEPARTMENT AL aL-BAYT UNIVERSITY		TIME ALLOWED: 50 MINUTES MAXIMUM MARKS: 20 MARKS
FIRST EXAM, FALL EXAMINATION 2018		OPERATING SYSTEM 901332
(WRITE YOUR NAME AND YOUR ROLL NO. ON THE TOP IMMEDIATELY ON THE RECEIPT OF THIS QUESTION/ANSWER PAPER.)		
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 primary purpose of an operating system is:
   A. To make the most efficient use of the computer hardware
   B. To allow people to use the computer
   C. To keep systems programmers employed
   D. To make computers easier to use

2. Which is the first program run on a computer when the computer boots up?
   A. System software
   B. Operating system
   C. System operations
   D. None

3. _____ is used in operating system to separate mechanism from policy
   A. Single level implementation
   B. Two level implementation
   C. Multi level implementation
   D. None

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. When a process is accessing its heap space, it exists in the _____ .
   A. Running state
   B. Waiting state
   C. Terminating state
   D. Ready state

6. When a process performs I/O, its PCB is moved to the _____ .
   A. Ready queue
   B. Wait queue
   C. Terminate queue
   D. Running queue

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 ____.
   A. includes information on the process's state
   B. stores the address of the next instruction to be processed by a different process
   C. determines which process is to be executed next
   D. is an example of a process queue

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

Q2. Define operating systems in terms of what they do. (2 Marks)

Q3. How do I/O-bound and CPU-bound processes differ? (2 Marks)

Q4. a. How is an interrupt executed? (2 Marks)

b. What is an interrupt vector?

Q5. List five services provided by an operating system with short explanation on each. (5 Marks)

Q6.What is the purpose of system calls? (1 Marks)