



الرجاء اجابة الاسئلة التالية مع الالتزام باماكن الاجابة

**Question (1):** \_\_\_\_\_ **(8 Marks)**

**a) Write T (true) or F (false)**

- The operating system manages only the other software
- The essential four managers of every operating system are the memory manager, the processor manager, the device manager, and the network manager
- A thrashing means failure to find page in memory.
- Memory deallocation means releasing allocating memory space.

**b) Choose the correct answer**

- Which of the following memory management schemes does not allow multiprogramming?
  - Single-user contiguous scheme
  - Fixed partition
  - Dynamic partition
  - Relocatable dynamic partitions
- Which of the following memory management schemes optimizes fragmentation?
  - Single-user contiguous scheme
  - Fixed partition
  - Dynamic partition
  - Relocatable dynamic partitions
- Which of the following is not disadvantage of a fixed partition scheme?
  - Requires that the entire program be loaded into memory
  - Requires that the entire program be stored contiguously
  - Requires that the entire program remain in memory until the job is completed
  - Does not allow multiprogramming
- Which of the following is the correct way of calculating the address of the page frame?
  - Multiply the page frame number by the page frame size
  - Divide the page frame size by the page frame number
  - Add the page frame number and the page frame size
  - Multiply the page frame number by the displacement

**Answer:**

1.	2.	3.	4.
5.	6.	7.	8.

**Question (2):** \_\_\_\_\_ (4 Marks)

Given the following information:

Job number	Memory requested
Job1	175
Job2	800
Job3	600

Memory block	Memory block size
Block1	800
Block 2	200
Block 3	820

a) Use the first-fit algorithm to indicate which memory blocks are allocated to each of the three arriving jobs.

**Answer:**

Job number	Memory block#
Job1	
Job2	
Job3	

b) Use the best-fit algorithm to indicate which memory blocks are allocated to each of the three arriving jobs.

**Answer:**

Job number	Memory block#
Job1	
Job2	
Job3	

**Question (3)** \_\_\_\_\_ (8 Marks)

Given that main memory is composed of three page frames for public use and that a seven-page program (with pages a, b, c, d, e, f, g) requests pages in the following order:

**a, b, a, c, d, a, e, f, g, c, b, g, a, g, f**

a) Using the FIFO page removal algorithm, do a page trace analysis indicating page faults with asterisks (\*). Then compute the failure and success ratios.

b) Repeat part (a) for the LRU page removal algorithm.

اجابة هذا السؤال في الخلف من فضلك