


<b>University</b> : Menoufia <b>Faculty</b> : Electronic Engineering <b>Department</b> : Computer Science and Eng. <b>Academic level</b> : 4 <sup>th</sup> Year <b>Course Name</b> : Advanced Operating System <b>Course Code</b> : CSE 424		<b>Date</b> : 2/06/2019 <b>Time</b> : 3 Hours <b>No. of pages</b> : 2  <b>Full Mark</b> : 70 Marks <b>Exam</b> : Final Exam  <b>Examiner</b> : Dr: Ahmed Elmhalawy
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**Answers all from following questions (two pages) [70 Marks]**

**A) State the following statements true or false and correct the false one [30 Marks]**

- 1- An I/O port typically consists of three registers.
- 2- The controller indicates its state through the free bit in the status register.
- 3- The host signals its wishes via the command-ready bit in the status register.
- 4- In many computer architectures, four CPU-instruction cycles are sufficient to poll a device.
- 5- The hardware mechanism that enables a device to notify the CPU is called a polling.
- 6- the maskable interrupt is reserved for events such as unrecoverable memory errors.
- 7- The I/O scheduler rearranges the order of the stuck to improve the overall system efficiency.
- 8- Access to the cached copy is less efficient than access to the original.
- 9- A spool is a buffer that holds input for a device.
- 10 - A failure of a SCSI device is reported by the SCSI protocol in four levels of detail.
- 11- There are five major reasons for building distributed systems.
- 12- Data migration is to transfer the part of file to from one site to another.
- 13- A DFS should appear to its clients to be a conventional, parallel file system.
- 14- A component unit is the largest set of files that can be stored on a single machine
- 15- In a DFS, the range of the naming mapping is an address within a disk.

- B-1) Give an example for steps of the polling process. [5 Marks]
- B-2) Show the interrupt-driven I/O cycle. [5 Marks]
- B-3) Illustrate The process of using a DMA. [5 Marks]
- B-4) What are the reasons for Buffering? [5 Marks]
- B-5) Write short note about stream. [5 Marks]
- B-6) What are the used methods to move the process through network? [5 Marks]
- B-7) Show how to detect link and site failure. [5 Marks]
- B-8) Discuss the Naming Structures and schema. [5 Marks]

*With my best wishes*