

### QUESTION 1

1. When called by a user program the mode bit would switch from user mode to kernel mode

- ☐ C functions
- ☒ System calls
- ☐ Application programming interface (API)
- ☐ Machine code

### QUESTION 2

1. It enables application software to be ported easily, through recompilation, to other systems that support the same API.

- ☒ Application Programming Interface (API)
- ☐ Application binary interface (ABI)
- ☐ Instruction set architecture (ISA)
- ☐ None of the above

### QUESTION 3

1. Command Line Interface (CLI), Graphical User Interface (GUI), Batch are example of

- ☐ A. Protection and security
- ☒ B. User Interface
- ☐ C. Error detection
- ☐ D. Accounting

### QUESTION 4

1. Microkernel system structure This method structures the operating system by removing all nonessential components from the kernel and implementing them as system programs and user-level programs.

- ☐ Leading to harder to extend microkernel and easier to port the OS to new architecture and zero overhead.
- ☐ Leading to easier to extend microkernel and easier to port the OS to new architecture and zero overhead.
- ☐ Leading to easier to extend microkernel and easier to port the OS to new architecture and zero overhead.
- ☒ Leading to easier to extend microkernel and easier to port the OS to new architecture and additional overhead due to communication between user space and kernel space.

### QUESTION 5

1. Specifying and designing an operating system is a highly creative task. One important principle to separate are Policy and Mechanism

☒ **Policy: What** will be done?  
**Mechanism: How** to do it?

☐ Policy: How it will be done ?  
Methodology: How it will be done in more details.

☐ **Policy and Mechanism are supposed to be the same, separating them is a waste of time**

☐ **Policy: When it** will be done?  
**Mechanism:** How to do it?

### QUESTION 6

1. MS DOS was designed on an architecture that support

- ☐ Dual mode. It support multiprocessing and multitasking.
- ☐ Single mode. It supports multiprocessing and multitasking.
- ☒ Single mode. It does not support multiprocessing and multitasking.
- ☐ Dual mode. It does not support multiprocessing and multitasking.

### QUESTION 7

1. In Layer Approach, system is divided into a number of layers (levels), each built on top of lower layers.

- ☐ One major advantage is that layers are need to be carefully designed and They tend to be more efficient than other types.
- ☐ One major disadvantage is that layers are need to be carefully designed and They tend to be more efficient than other types.
- ☒ One major disadvantage is that layers are need to be carefully designed and They tend to be less efficient than other types.
- ☐ One major advantage is that layers are need to be carefully designed and They tend to be less efficient than other types.

### QUESTION 8

1. In uniprogramming you have

- ☒ A. One active program at a time, and mostly with low CPU utilization.
- ☐ B. many active programs at a time, and mostly with low CPU utilization.
- ☐ C. One active program at a time, and mostly with high CPU utilization.
- ☐ D. many active programs at a time, and mostly with high CPU utilization.

### QUESTION 9

1. Modules is one of the best current methodology for operating system design, communication can be performed
- ☐ Modules can communicate through air, water, and solid materials.
  - ☐ All communication has to go through the kernal.
  - ☒ Each module can communicate with other module through known interfaces
  - ☐ Modules are independent entity, there are absolutely no need for communication between modules

### QUESTION 10

1. System call parameter passing can be performed by
- ☐ System calls has no parameter, it knows the intention of the caller automatically.
  - ☒
    - 1. Pass Parameter in registers, or
    - 2. Registers stored in block and address is stored in registers
    - 3. uses stack (program push parameters, and stack popped off by OS)
  - ☐
    - 1. Pass Parameter in registers, or
    - 2. Registers stored in block and address is stored in registers
    - 3. uses hash function
  - ☐ It can only done by using stack (program push parameters, and stack popped off by OS) because registers are meant for something else.