QUESTION 1

1. Which of the following statements regarding device drivers is true?
   - [x] a. Device drivers present a uniform device access interface to the kernel I/O subsystem.
   - [ ] b. Device drivers manage only the newly emerging I/O devices that are unlike previous devices.
   - [ ] c. Device drivers are part of the kernel I/O subsystem.

QUESTION 2

1. Which of the following statements is true for a blocking I/O system call?
   - [ ] a. The application continues to execute its code when the call is issued.
   - [ ] b. Code using blocking I/O is harder to understand than the one using asynchronous I/O.
   - [x] c. The execution of the application is suspended when the call is issued.
   - [ ] d. The call returns immediately without waiting for the I/O to complete.

QUESTION 3

1. Read or write performance of a hard disk drive depends on
   - [ ] a. data transfer time
   - [ ] b. seek time
   - [ ] c. rotational latency
   - [x] d. all of the above

QUESTION 5

1. Consider a set of four hard-disks, each of 200 GB storage capacity. What are the corresponding storage capacities if they are configured using RAID 0+1?
   - [ ] a. 400 GB
   - [ ] b. 200 GB
   - [ ] c. 800 GB
   - [x] d. 600 GB

QUESTION 3

1. Which of the following holds output for a device that cannot accept interleaved data streams?
   - [x] a. spool
   - [ ] b. cache
   - [ ] c. buffer

QUESTION 4

1. Consider a disk queue holding requests to the following cylinders in the listed order: 116, 22, 3, 11, 75, 185, 100, 87. Using the C-LOOK scheduling algorithm, what is the order that the requests are serviced, assuming the disk head is at cylinder 88 and moving upward through the cylinders?
   - [ ] a. 116 -> 22 -> 3 -> 11 -> 75 -> 185 -> 100 -> 87
   - [ ] b. 87 -> 75 -> 100 -> 116 -> 185 -> 22 -> 11 -> 3
   - [ ] c. 100 -> 116 -> 185 -> 3 -> 11 -> 22 -> 75 -> 87
   - [x] d. 100 -> 116 -> 185 -> 87 -> 75 -> 22 -> 11 -> 3

QUESTION 5

1. Consider a set of four hard-disks, each of 200 GB storage capacity. What are the corresponding storage capacities if they are configured using RAID 1+0?

   a. 400 GB
   b. 200 GB
   c. 600 GB
   d. 800 GB

QUESTION 5

1. Consider a set of four hard-disks, each of 200 GB storage capacity. What are the corresponding storage capacities if they are configured using RAID level 1?

   a. 200 GB
   b. 600 GB
   c. 800 GB
   d. 400 GB

QUESTION 2

1. Which state will a process be after performing an asynchronous I/O system call?

   a. waiting
   b. ready
   c. running

QUESTION 3

1. Which mechanism is more appropriate to use for reading a data block of a file repeatedly from hard-disk?

   a. spool
   b. cache
   c. buffer

QUESTION 5

1. Consider a set of four hard-disks, each of 200 GB storage capacity. What are the corresponding storage capacities if they are configured using RAID level 0?

   a. 600 GB
   b. 200 GB
   c. 800 GB
   d. 400 GB

QUESTION 1

1. Low-level formatting

   a. is different from physical formatting
   b. divides a disk into sections that the disk controller can read and write
   c. is usually performed by the purchaser of the disk device

QUESTION 1

1. Which of the following statements regarding device drivers is not true?
   - a. Device drivers manage only the basic I/O hardware devices.
   - b. Device drivers present a uniform device access interface to the kernel I/O subsystem.
   - c. Add new I/O device doesn't need to change I/O interface and kernel I/O subsystem.

QUESTION 2

1. Which state will a process be after performing a blocking I/O system call?
   - a. waiting
   - b. running
   - c. ready

QUESTION 5

1. A RAID structure is primarily used
   - a. to decrease the dependence on disk drives
   - b. to ensure higher data reliability
   - c. for security reasons