1. Which level of RAID refers to disk mirroring with block striping?  
a) RAID level 1  
b) RAID level 2  
c) RAID level 0  
d) RAID level 3

Answer: a  
Explanation: RAID level 1 refers to disk mirroring with block striping.

2. Optical disk technology uses  
a) Helical scanning  
b) DAT  
c) A laser beam  
d) RAID

Answer: d  
Explanation: Redundant Array of Inexpensive Disks.

3. With multiple disks, we can improve the transfer rate as well by \_\_\_\_\_\_\_\_\_\_\_ data across multiple disks.  
a) Striping  
b) Dividing  
c) Mirroring  
d) Dividing

Answer: a  
Explanation: Data striping consists of splitting the bits of each byte across multiple disks; such striping is called bitlevel striping.

4. Which one of the following is a Stripping technique?  
a) Byte level stripping  
b) Raid level stripping  
c) Disk level stripping  
d) Block level stripping

Answer: d  
Explanation: Block-level striping stripes blocks across multiple disks. It treats the array of disks as a single large disk, and it gives blocks logical numbers.

5. The RAID level which mirroring is done along with stripping is  
a) RAID 1+0  
b) RAID 0  
c) RAID 2  
d) Both RAID 1+0 and RAID 0

Answer: d  
Explanation: Mirroring without striping can also be used with arrays of disks, to give the appearance of a single large, reliable disk.

6. Where performance and reliability are both important, RAID level \_\_\_\_ is used.  
a) 0  
b) 1  
c) 2  
d) 0+1

Answer: d  
Explanation: Mirroring without striping can also be used with arrays of disks, to give the appearance of a single large, reliable disk.

7. \_\_\_\_\_\_\_\_\_\_\_\_\_\_ partitions data and parity among all N+1 disks, instead of storing data in N-disks and parity in one disk.  
a) Block interleaved parity  
b) Block interleaved distributed parity  
c) Bit parity  
d) Bit interleaved parity

Answer: b  
Explanation: In level 5, all disks can participate in satisfying read requests, unlike RAID level 4, where the parity disk cannot participate, so level 5 increases the total number of requests that can be met in a given amount of time.

8. Hardware RAID implementations permit \_\_\_\_\_\_\_\_\_ that is, faulty disks can be removed and replaced by new ones without turning power off.  
a) Scrapping  
b) Swapping  
c) Hot swapping  
d) None of the mentioned

Answer: c  
Explanation: Hot  
swapping reduces the mean time to repair since replacement of a disk does not have to wait until a time when the system can be shut down.

9. \_\_\_\_\_\_\_\_\_\_\_ is popular for applications such as storage of log files in a database system since it offers the best write performance.  
a) RAID level 1  
b) RAID level 2  
c) RAID level 0  
d) RAID level 3

Answer: a  
Explanation: RAID level 1 refers to disk mirroring with block striping.

10. \_\_\_\_\_\_\_\_\_\_\_\_\_\_ which increases the number of I/O operations needed to write a single logical block, pays a significant time penalty in terms of write performance.  
a) RAID level 1  
b) RAID level 2  
c) RAID level 5  
d) RAID level 3

Answer: a  
Explanation: In level 5, all disks can participate in satisfying read requests, unlike RAID level 4, where the parity disk cannot participate, so level 5 increases the total number of requests that can be met in a given amount of time.