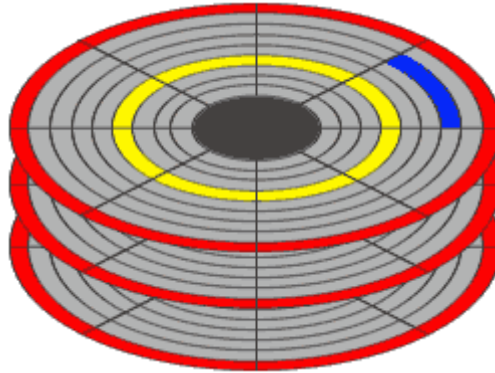


Name: _____

Storage Test (Out of 28 Marks)

1. For the following image, name each part, and choose the definition for each part: (8)



Color	Name	Description (a-d)
■	Platter	d
■	Track	b
■	Cylinder	a
■	Sector	d

Descriptions
a) A group of tracks with the same radius.
b) A concentric set of magnetic bits on a platter. It is divided into many sectors.
c) Every one of these has its own unique ID number, as well as an error correction code. The error correction code ensures that if there is a data error on the sector, it can be repaired, and the data can be used.
d) A flat, circular disc, having a similar shape to a CD. It holds the physical data. Platters can usually store data on the top and bottom side at the same time. Most modern CD-ROM Drives have multiple platters in order to allow for more storage capacity.

2. a) Why is a lubricant present as the first layer of a Hard Drive Platter? (2)

It is present to minimize the wear of the layers below it, specifically the Carbon layer below it.

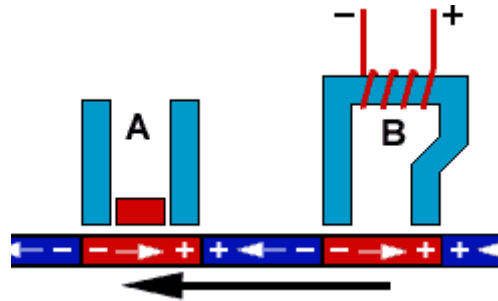
b) What is the magnetic coat on the Hard Drive used for? (2)

It is used to store the data, the 1s and 0s that the computer uses.

c) The last layer of the Hard Drive very thick in comparison to the other layers. What is this material, and why is its layer thicker? (3)

The last layer of the Hard Drive is metal. It is much thicker than the other layers in order to give strength to the platter.

3. a) In the following image, what is the name of A. and B.? (2)



A) Read Head
B) Write Head

b) What is the purpose of A, and why are the two pieces of metal surrounding the Magneto-Resisting Sensor? (3)

The purpose of A is to read the data from the Hard Drive. The two pieces of metal surrounding the MR sensor are used to block out any possible interference.

c) What is the purpose of B, and what does the coiled wire around the main part cause it to become? (3)

The purpose of B is to write the data onto the Hard Drive. The coiled wire around the main part causes it to become an electromagnet when current is flowing through it.

4. How does the CD-ROM Drive pick up whether the part of the disc it is reading represents a 0 or a 1 (make sure you use the terms Laser and Disc in your answer)?(3)

The laser is shot at the CD-ROM. If the laser bounces back, the CD-ROM picks up a binary 1, otherwise, the CD-ROM regards it as a binary 0.

5. Although standard DVD Discs can hold a lot more information than a standard CD, there are ways to add even more storage. List two ways that storage on a DVD-ROM Disc can be doubled or quadrupled.

The DVD Disc can be double layered, double sided, or double layered and double-sided to increase the storage capacity.