

C Reading

6 Match the headlines (1–3) with the correct extracts (a–c).

- 1 Hybrid drives promise faster laptops and PCs
- 2 New 4x burner and BD-R discs
- 3 Moving closer to the terabyte era

2 marks for each correct answer

Total 6

a 3

Samsung Electronics announces the SpinPoint F1, a hard drive with a storage capacity of 1TB. The new F1 series features the world's highest recording density in a 3.5" hard disk drive, using only three disks.

The SpinPoint F1 1TB drive consists of three 334GB platters, enough space to store more than 300,000 6-megapixel images, 250,000 MP3s or 1,000 hours of standard definition video. It features a spin speed of 7,200 rpm and an average seek time of 8.9 ms. It also uses Perpendicular Magnetic Recording (PMR), a process that achieves higher storage densities and ensures recording stability.

The F1 also comes with disk utilities such as formatting, partition, compression and defragmentation software. Samsung plans to sell the F1 Series for about \$390.

b 1

Major storage manufacturers, such as Seagate, Samsung and Hitachi, have launched hybrid drives that integrate a 1.5" magnetic hard disk with up to 256MB of on-board flash memory.

With the hybrid HDD, manufacturers seek to combine the benefits of both technologies: magnetic hard drives offer low cost and extraordinary storage; flash memory offers speed and reliability. Flash memory is used as a non-volatile disk cache, a mechanism that allows quick access to data so that it can be retrieved faster, reducing the use of the hard disk, thus cutting power consumption.

The first computer with a hybrid hard drive was the Samsung R55 notebook, followed by the LG R400. The new generation of PCs will probably run faster and last longer thanks to these hybrid hard drives and a feature in the Windows Vista operating system, called ReadyDrive, that uses NAND flash memory as a disk cache.

c 2

Panasonic has developed a new drive capable of writing to Blu-ray discs at 4x speed. The new discs are available in both 25GB and 50GB, which allows consumers to conveniently handle large amounts of data and high-definition content.

The Blu-ray disc system uses a blue-violet laser operating at a wavelength of 405 nm (nanometers) to read and write data. Conventional DVDs, however, use red lasers at 650 nm. A dual layer Blu-ray disc can store 50GB, almost six times the size of a dual layer DVD at 8.5GB. Blu-ray is particularly well-suited to high-definition films and video games. Blu-ray players are backward-compatible with CD/DVD formats.

7 Read the texts again and answer these questions.

- 1 What is the average access time of the SpinPoint F1 drive? 8.9 ms
- 2 Which technology allows a hard drive to increase its capacity for data? Perpendicular magnetic recording
- 3 What are the benefits of using flash memory in a hybrid hard drive? You can cut on access times when accessing the disk
- 4 Which company first released a laptop with a hybrid hard drive? Samsung
- 5 Where does the Blu-ray format get its name? It's named after the colour of the laser
- 6 What is the storage capacity of a dual layer Blu-ray disc? 50GB

2 marks for each correct answer

Total 12

8 Find words in the texts with the following meanings.

- 1TB
1 unit of memory equivalent to 1,024GB
- platter
2 magnetic disks that constitute part of a hard drive
- Disk Utilities
3 software used for performing disk-related tasks, such as formatting, partitioning and defragmenting
- Hybrid HDD
4 a storage device that combines a magnetic hard disk drive and flash memory
- Cache / on board flash memory
5 a portion of memory used to speed up access to data
- LASER
6 acronym for light amplification by stimulated emission of radiation
- backward compatible
7 describes devices that can play back previous formats

2 marks for each correct answer

Total 14

D Writing

9 Write an email to a friend, recommending a new flash-based media player (e.g. an MP3 player) that you have seen in a computer shop.

Total 10

TOTAL A+B+C+D 100

Hey George, I was writing to you because I wanted to talk about a n