

PERIPHERAL AND INTERFACES

2014

PART -A

1. Attempt any ten questions.

10x2=10

(1) Define Refresh Rate.

The refresh rate of your display refers to how many times per second the display is able to draw a new image. This is measured in Hertz (Hz). For example, if your display has a refresh rate of 144Hz, it is refreshing the image 144 times per second. When paired with the high frame rates produced by a GPU and CPU working together, this can result in a smoother experience and potentially higher FPS.

(2) What is pixels?

The pixel (a word invented from "picture element") is the basic unit of programmable color on a computer display or in a computer image

(3) What is Resolution?

Resolution

Monitor resolution describes the visual dimensions of any given display. Expressed in terms of width and height, monitor resolution is comprised of a specific number of pixels.

Formula W*H

In the case of a monitor with an industry-standard Full HD 1080p resolution, this display has a resolution of 1920 x 1080. This means that the screen will have a width of 1,920 pixels while the height of the screen will be 1,080 pixels. This results in a grand total of 2,073,600 pixels on-screen.

(4) What is Dot Pitch?

The term "dot pitch" refers to the distance between like-colored phosphors on a video monitor. The smaller the dot pitch, the finer the image can be.

(5) Give two examples of Impact printers.

Impact printers

- DMP
- Daisy Wheel Printer

(6) How much DC supply required for laser printers?

An average laser printer designed for home use tends to consume anywhere between 300 to 550 watts of power

(7) Define SCSI.

SCSI
Small Computer System Interface
a SCSI system is more expensive than EIDE.
SCSI you need an extra controller, because there aren't a lot of motherboards with integrated SCSI controllers.
It supports data rates from 5 to 40 Mbps in 8bit and 20 to 80 Mbps in 16bit.
SCSI hard disks have larger cache RAM than EIDE hard disks.
Configuring SCSI can be more difficult for most users compared to EIDE.

(8) Write down the full form of RLL and IDE.

RLL - RUN LENGTH LIMITED

IDE - INTEGRATED DRIVE ELECTRONICS

(9) Define dragging.

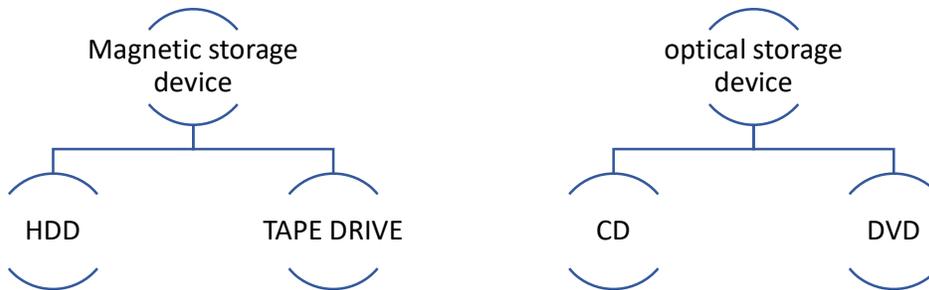
Drag" means placing the cursor over the icon of an item, pressing the left (or sometimes right) mouse button to highlight it, and while keeping the button depressed, moving the selected item across the screen.

(10) What is Seek and latency time?

Seek time the length of time it takes for a disk drive to locate a given piece of information on a disk.

Latency is the time it takes for data to pass from one point on a network to another.

(11) Give two examples each of magnetic and optical storage device.



(12) What are digitizers?

A digitizer is a hardware device that receives [analog](#) information, such as sound or light, and records it [digitally](#).

Usually, the information is stored in a [file](#) on a [computing device](#). This process is called [digitization](#).

For example, a [digital camera](#) is a digitizer. Light enters through the camera lens, and

the [hardware](#) and [software](#) inside the camera converts that information to [binary](#) data, and stores it an image file.

The user may then transfer the file to a computer, where he or she can [edit](#) the image, [print](#) it out, or share it [online](#).

Examples of digitizers

- Digital camera
- Audio digitizer
- Digital Tablet
- Accelerometer and gyroscope
- Scanner

(13) What is FAT?

A file allocation table (FAT) is a table that an operating system maintains on a hard disk that provides a map of the clusters (the basic units of logical storage on a hard disk) that a file has been stored in.

(14) Define System Booting.

Bootting is a start-up sequence that starts the operating system of a computer when it is turned on.

2. Attempt any five questions:

5x4=20

(1) What is the difference between Raster Scan and Vector graphics?

Raster Scan	Vector Scan
The resolution of raster scan is lesser or lower than Vector scan.	The resolution of random scan is higher than raster scan.
Cost is lesser than vector scan.	It is costlier than raster scan.
While in raster scan, interlacing is used.	In random scan, interlacing is not used.
Electron Beam is directed from top to bottom and one row at a time on screen. It is directed to whole screen.	Electron Beam is directed to only that part of screen where picture is required to be drawn, one line at a time.

(2) Define PAL and NTSC Standards.

NTSE (National Television Standard) and PAL (Phase Alternating Line) are two types of colours encoding systems that affect the visual quality of content viewed on analog televisions and, to a much smaller degree content viewed on HDTV's while NTSE delivers a frame rate of 30 frames per seconds at an aspect ration of 720x480 pal uses of frame rate of 25 FPS and a 725x576 aspect the PAL system offers automated colour correction compared to NTSE manual colour correction. The NTSC's standard is popular in places like the U.S, and Japan while PAL is more common in country such as U.K., Australia, and Sweden

(3) Describe the comparison between Laser and Inkjet Printers.

(4) Explain Hierarchy of memories.

(5) What is partitioning?

As suggesting from the name, partitioning means divisions. Partitioning is the process of dividing the hard-disk into one or more regions. The regions are called as partitions. It can be performed by the users and it will affect the disk performance.

(6) What is touch screen? Mention two differences between Mouse and Joystick?

The screen uses light-emitting diodes (LEDs) to produce its images. Touchscreens work using electricity. The screen is made of glass, an insulating material – it cannot carry an electric current. The surface of the screen is therefore coated with a thin layer of an electrically conducting material such as indium tin oxide. This is chosen because it is transparent.

MOUSE	JOYSTICK
A mouse does not. if it is held steady then there is no way to tell "how far" it is from its center	A joystick has a definable center. if it is held steady then it is still "this far" away from its center.

(7) What is the function of Device Drivers?

(8) Distinguish between SCSI, IDE drives.

PART -B

Attempt any three questions: -

3x20=60

3 (a) Explain the construction and working of a colour monitor.

(b) Explain display adapters-CGA, VGA and SVGA?

4 (a) What do you mean by scanner. Explain with block diagram.

(b) Explain principal working of laser printer in detail?

5 (a) Explain in brief Data Encoding Technique MFM and Sector Interleaving?

(b) Make a comparison between various storage devices like HDD, FDD, CD-ROM, DVD-RAM and write the concept of storage capacity, Speed, Read/Write, online/offline and removable/non removable features?

6 (a) Explain briefly the working principle of keyboard and mouse?

(b) Explain head parking and data recording in hard disk drive.

7 (a) Explain the working principle of voice coil and stepper motor actuator in disk drives.

(b) Explain the term bad sectors, head crashers, BIOS and formatting?