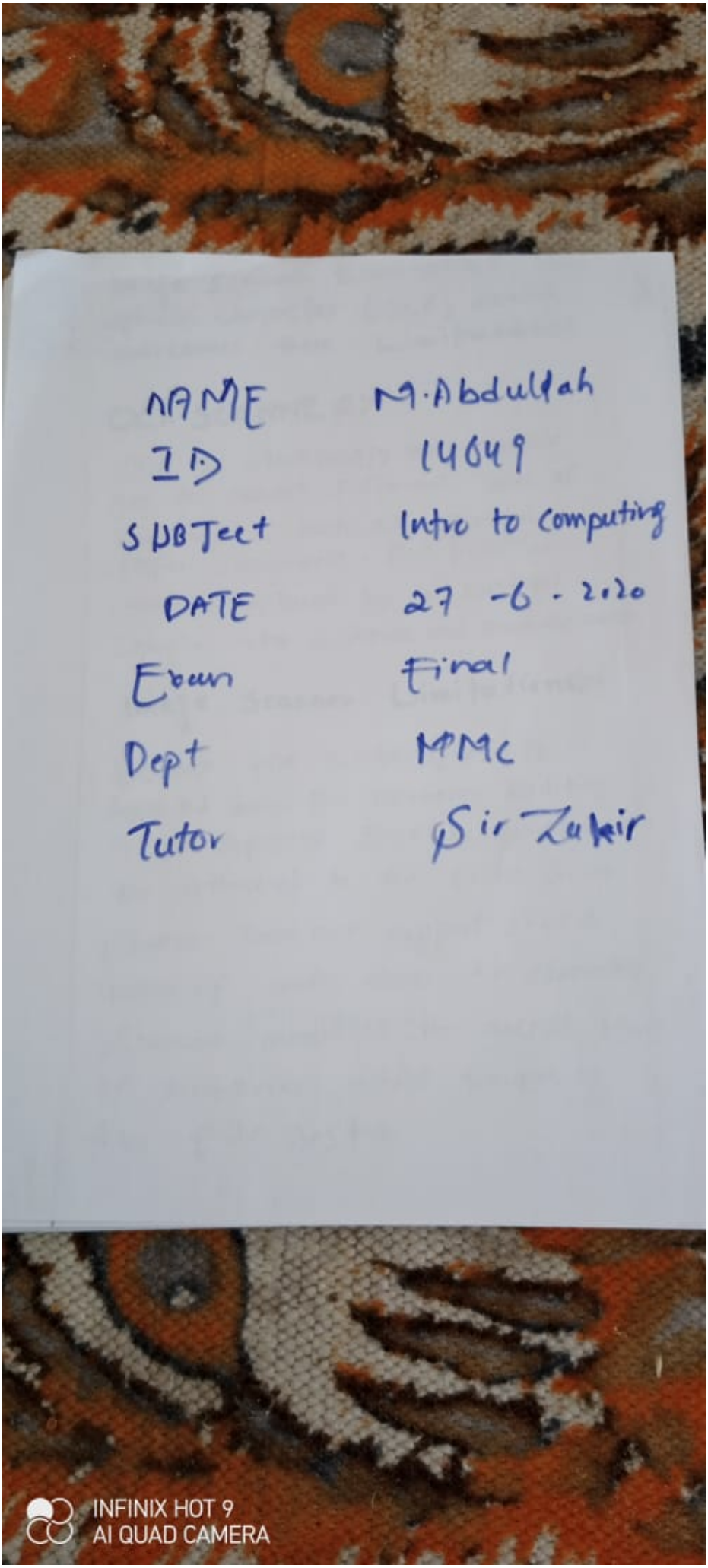

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SUBJECT Intro to computing
DATE 27-6-2020
Exam Final
Dept MMC
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Q1/- (A) Image Scanner Limitations? How optical character (OCR) device overcomes these Limitations?

OCR SCANNER:-

OCR is a technology that eanable you to convert Different Types of Documents, such as scanned paper Documents, PDF Files or Images captured by a Digital Camera into editable and searchable data.

Image Scanner Limitations:-

Resilent file system (ReFs) is supported only for scanning. Auditing is not supported since the driveconnot be attached to the Filter driver.

Scanner Does not support shares names of more than 260 characters

Scanners modifies the access time of Directories while traversing the file system.

Limitation of Image Scanner :-

2

Some Limitation of OCR : OCR may not convert characters with very large or very small font sizes. OCR works best with good quality Typed Documents. Hand written documents cannot be easily read by OCR software.

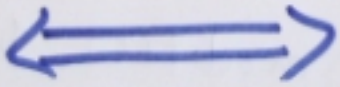
Limitations :-

1) Scanner does not support share names of more than 200 characters.

2) Scanner modifies the access time of Directories while traversing the File system.

3) (ReFS) is supported only for scanning.

4) Auditing is not supported since the drive cannot be attached to the Filter driver.



1(B) Elaborate the (MICR) device? 3

(MICR):-

Magnetic Ink character Recognition code, known in short as MICR code is a character Recognition technology used mainly by the banking Industory to streamline the processing and clearance of cheques and other documents.

Uses of MICR:-

The MICR is machine Readable number. when a cheque goes to the bank clearing house the number is Read automatically and the cheque is sent to your branch for Reconcilliation. It speeds the whole process up compared to someone Reading it and Sorting by hand.

4

1) MICR is used by banking industry for faster processing of large volume of cheques.

2) Bank identification code (name, branch) account and number and cheque number are pre-printed (encoded) using characters from a special characters set on all cheques.

3) Special ink is used that contains magnetizable particles of iron oxide.

4) MICR Readers - sorter reads data on cheques and sorts them for distribution to other banks or for further processing.

5) MICR extremly use ful in that makes processing persinal cheaques fast, secure and accurate.

2(A) Different blw printer and plotter? 5

Plotter:- A device thats draws pictures on the page with the help of commands given through a computer.

Printer:- A device that brings images and texts on the page with the help of Commands given through the network.

Difference blw printer & plotter?

A printer provides the output file Data in a Format such as bitmap or pixels. A plotter provides the output in a Format that is similer to a vector graphic/ Image created with lines. Printer produces the Data in hard copy format at a Faster speed when Compared to a plotter.

	Plotter	Printer
1)	Gives the output in a Format that is Similer to be A vector Graphic	output File Data in case of a Printer usually jet stored as bitmap pixels.
2)	Draw Continous Lines	work at Fast speed.
3)	work slower than Others.	DO not Draw continous Lines
4)	Needed on Pen	Laser Need ~~tape~~ or Pencil
5)	plotter are less Costly when Compared to ~~Plotters~~ printer.	printer ~~plotter~~ are high Costly when compared to plotters
6)	plotter can only print a single line at the time.	printer can only print a single Line at the time.

2(B) Explain printing process of A Laser Printer? 7

Laser printing is an electro-static digital printing process. It produces high-quality Text and graphics (and moderate-quality photographs) by repeatedly passing a laser beam back and forth over a negatively charged cylinder called a "Drum" to define a differentially charged image.

Laser printing : 1969
Solid Printing : 1987
Digital printing : 1991
InkJet Printing : 1950

The Laser printing process having 7 major steps :-

1) STEP 1 : Sending
2) STEP 2 : Cleaning

STEP 3 : Conditioning
STEP 4 : Exposing
STEP 5 : Developing
STEP 6 : Transferring
STEP 7 : Fusing.

Basics of Laser printing ?

* The primary principle at work in a Laser printer is static electricity
* Static electricity is simply an electrical bulid up on an insulted item such as the human body or A ballon.
* A Laser printer use the phenomenon to act as a temporary glue
* The core component of this system is the photo Receptor which is Typically a Revolving Cylindor or Revolving Drum.
* This Drum assembly is made out of highly Conductive material that is Discharged by Light photons.

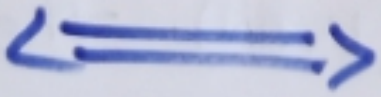
Q3(a) Explain Metro politan Area Network (MAN) with example? 9

* Defination :- A metro politan Area network (MAN) is a Network that Inter Connects usesr with Computer Resources in a geographic area or Region Larger than that Covered by even a Large local are Network (LAN) but Smaller than the area Covered by a wide area Network (WAN).

* **Explanation:-** A metropolitan area Network is Network that Interconnects users with Computer Resources in a geographic area or Region larger than that Covered by even or Region large local Area Network but smaller that the area Covered by a wide area Network (WAN). the Term is

Applied to the inter connection of networks in a city into a single larger network which may be that also offers efficient connection to a wide area network). it is also used to mean the inter connection of several local area networks by bridging them with back bone ling. The latter usage is also sometimes referred to as a campus network.

* **Examples:-** (MAN) of various sizes can be found in the metropolitan areas of London, England, Lodz, Poland, and Geneva, Switzerland. Large universities also sometimes use the term to describe their networks. A Recent trend is the installation of wireless MAN's.



(b) (3) Define topology? which topology would you choose to setup Local area Network And why? 11

Topology:- A Network Topology is the Arrangments with which Computers system or Network devices are connected to each other. Topologies may define both physical and Logical aspect of the Network.

* STAR Topology is used to setup Local Area Network.

STAR TOPOLOGY:-

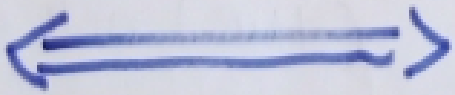
* Each Topology has a dedicated point to point Link only to central controller usually called A Hub.
* The devices are not directly linked to each other.

The controller (HUB) acts as an exchanger.

* **Which topology would you choose for Local Area Network?**

STAR Topology is Best Topology Because Every host of Star Topology is Directly connected to central device (Hub). If Central device transmitted message than every one Received directly.

A Star network Topology is Best Suited for small networks and works eefiCiently .when there is Limited number of Receiver(node) On has to ensure that the Central device or the central node is always working and extra Security Features should be added to the central device because its the Best port of the network.



Q4/ In opinion what are the Different Types of Common media used For storage access and transmission of information? why.

There are various Types of storage media, including magnetic tape, nonvolatile memory cards, Rotating fixed disk and solid - state drives (SSDs) which are based on non volatile flash memory. The Term storage encompasses all Data, and can be either primary or secondary storage.

10 Digital storage devices?

① Hard Disk
② Floppy Disk
③ Tape
④ Compact Disc (CD)
⑤ DVD and Blu-Ray Discs.
⑥ USB Flash Drive.
⑦ Secure Digital Card
⑧ Solid State drive
⑨ SD
⑩ SSD

In computers a storage medium is any technology - including devices and materials used to place keep and retrive Electronic Data. It refers to a physical device and a component system that receives and retains information relating to application and users. The plural form of this term is storage media.

Examples of storage media and pros and cons of each as follows.

Hard Disk:- A Hard disk provides a high-capacity alternative to magnetic storage media. it contains metal platters coated with a magnetic layer. the platters usually spin continously when a computer is on storing Data in Different Sectors on the magnetic disk.

RAID:- RAID works by placing Data on multiple disks and allowing input / output (I/O) operations to overlap in a blanced way. Improving performance. In the event a drive Fails the Data is protected From Companion drives.

Optical Disk:- optical Disk Technology uses lasers For write once Read many (WORM) Data. The use of Lasers allows high-density optical disk to store more data than magnetic HDDs. Types of optical Media Include Blue-Ray, DVDs and CD ROMs For Read only DATA.

Flash Memory:- Flash memory Does not Depend on moving mechanical parts. This gives Flash devices advantages in speed over traditional Disks. In Flash Memory blocks of Data must be erased to allow new Data to be written to the microchip.

SSD:- An SSD is installed in x86 computers to allow companies to user server-side flash as an alternative or adjunct to Networked storage arrays. SSDs initially were designed to take advantage of existing Seriel-Attached SCSI (SAS) and Serial Advanced Technology Attachment (SATA) products.

USB Flash drives:- USB Flash Drives are also known as nearline storage. a storage media that is not Continuously Connected to Network Servers or the Internet. Generally this makes most Removable media such as encrypted Cartridges or SATA drives.

TAPE:- Tape was Dominant Backup storage medium. until the 1990s but was gradually pushed aside by magnetic Disk Tap system Remain in use but the use case now. enters on high capacity archiving For Preserving DATA. Tape systems have Continued to Improve in desity and endurance Largely Due to advances in the Linear Tap open Format (LTO)