Computer 840/1 marking guide for uce 2017
SECTION A (20 MARKS)
Answer all questions in this section

1. A	8. A	15. A
2. D	9. C	16. D
3. A	10. B	17. C
4. A	11. A	18. A
5. B	12. B	19. C
6. B	13. D	20. A
7. D	14. A	

SECTION B (60 MARKS)

Answer all *questions in this section. All the working* must *be done in the space provided.*

21. a) Define transmission mode and its types.

Transmission mode defines the direction of signal flow between two linked devices. **(01 mark)**

Transmission modes are of three types.

- Simplex

- Half duplex   **01 mark**

- Full duplex.

b) Distinguish between half duplex and full duplex   (4 marks)

Half duplex is a transmission mode in which each station can both transmit and receive, but not at the same time.

While

Full duplex is a transmission mode in which both stations can transmit and receive simultaneously.

c) What are the types of transmission media?

Transmission media are divided into two categories. They are as follows:

I. Guided transmission media

II. Unguided transmission media   **ANY 2 x1=   (2 marks)**

d) How do guided media differ from unguided media?   (02 marks)

A guided media is contained within physical boundaries, while an unguided medium is boundless.

22. a) Define the term off the shelf software.   (2marks)

Off the shelf Software are ready-made and available softwares for sale to the general public.

b) In the table below, categorize the given programs as either system software or application software. (2 marks)

- Auto CAD.
- Windows 2000.
- Disk defragmenter.
- Publisher.

SYSTEM SOFTWARE	APPLICATION SOFTWARE
• Windows 2000.	• Publisher.
• Disk defragmenter.	• Auto CAD.

(4 marks)

c) **Explain the following computer programming tools:**

(i) **Compiler** (2marks)

A compiler is a special program that processes statements written in a particular programming language and turns them into machine language or "code" that a computer's processor uses.

(i) **Interpreter** (2marks)

An **interpreter** is a computer program that directly executes, i.e. *performs*, instructions written in a programming or scripting language, without previously compiling them into a machine language program.

23. a) **Give *three* arithmetic functions found in electronic spreadsheets.** (6 marks)

- Helps in data sorting, the ability to create, edit, saves and retrieval work sheets.
- Charting facility to draw graphs, data source.
- Telepants and built in functions and formulae for adding.
- Data formatting, summering ability to perform "what if analysis".

b) **Give *two* examples of electronic database software.** (2 marks)

- Microsoft access
- Oracle
- SQL server
- Fox pro
- Data base
- My SQL
- Paradox
- Boland database
- Lotus approach
- Corel paradox
- Postgre SQL

c) Give *two* uses of query objects created in electronic databases. **(2 marks)**

Select queries are used to retrieve specific data from database tables. Reports and forms that include data from multiple tables are based on select queries.

Append, or insert, queries add records to the specified table, and one of these queries can add information to several tables at once. Similarly, delete queries can quickly remove many records from a table. Make table queries create another table with a given structure, and update queries change or add data to existing records.

24. a) In relation to computer communication and networks, explain the meaning of the following terms.

(i)   Server   (2 marks)

    A **computer** or device on a network that manages network resources. There are many different types of **servers**. For example: File **server**: a **computer** and storage device dedicated to storing files. Any user on the network can store files on the **server**.

(ii)   Client   (2 marks)

 (in a network)a desktop computer or workstation that is capable of obtaining information and applications from a server.

b). (i) State three advantages of depending on computer networks **(3 marks)**

It enhances communication and availability of information.

Networking, especially with full access to the web, allows ways of communication that would simply be impossible before it was developed. Instant messaging can now allow users to talk in real time and send files to other people wherever they are in the world, which is a huge boon for businesses. Also, it allows access to a vast amount of useful information, including traditional reference materials and timely facts, such as news and current events.

It allows for more convenient resource sharing.

This benefit is very important, particularly for larger companies that really need to produce huge numbers of resources to be shared to all the people. Since the technology involves computer-based work, it is assured that the resources they wanted to get across would be completely shared by connecting to a computer network which their audience is also using.

It makes file sharing easier.

Computer networking allows easier accessibility for people to share their files, which greatly helps them with saving more time and effort, since they could do file sharing more accordingly and effectively.

It is highly flexible.

This technology is known to be very flexible, as it gives users the opportunity to explore everything about essential things, such as software without affecting their functionality. Plus, people will have the accessibility to all information they need to get and share.

It is an inexpensive system.

Installing networking software on your device would not cost too much, as you are assured that it lasts and can effectively share information to your peers. Also, there is no need to change the software regularly, as mostly it is not required to do so.

It increases cost efficiency.

With computer networking, you can use a lot of software products available on the market which can just be stored or installed in your system or server, and can then be used by various workstations.

It boosts storage capacity.

Since you are going to share information, files and resources to other people, you have to ensure all data and content are properly stored in the system. With this networking technology, you can do all of this without any hassle, while having all the space you need for storage.

(ii) Write the acronym MODEM in full   **(1 mark)**

Modulator Demodulator

(iii) Give *two* advantages a school would enjoy by having a website   **(2 marks)**

Less Expensive

Have you ever advertised your business through various forms such as printed media, radio, television or by other means? It's expensive! Investing in advertising is necessary, but it takes a lot of money. Having a website will make promoting your company less expensive. Many versions of offline advertising available on the internet are sometimes free.

Advertising

A website is more environmental friendly when it comes to advertising and marketing. There are lots

of ways to advertise your products or services through the internet. One example is Facebook ads, an advertising feature offered through Facebook. Another one is called SEO. This is a major advantage for your business. Having a good **SEO service provider** can boost the ranking of your website which quickly results in increased sales and higher profits.

Satisfaction

Having a website will be more convenient for your customers and leads. Make it easy for your customers to purchase from you! Many will be more likely to visit your website, rather than driving a car to your physical location and browsing for your products. From a customer's point of view, it's better for them if they don't have to ask anything. They can just find what they're looking for on your online site.

Increase Customers

Most businesses have local popularity, but what about potential customers outside their city? A website can help you generate more customers. Not just outside your city, but worldwide. The internet offers a global community. With a website, your business will be visible around the world.

Accessibility

Have you ever experienced having to turn customers away because it's closing time? Well, you don't have to close the doors of your website. An online site can be visited any time of the day or night. People will look to your site instead of going to your shop because it is more accessible. Just make sure to post enough information about your products and services.

Access to Info

Did you know that if you own a website, you can actually track everything that is happening on it? You can even look for information that will tell you how many people visited your site, or how many people messaged or emailed you. You can access the progress of your website and view all its pages. You can even make an update anytime, making it much less expensive than printed material.

Fresh

Smart business owners create a blog page for their company. Having a blog to post fresh content will keep your website attractive and fresh.

Links

Links are very important to viral marketing. If you have many sites linking to you, it is like spreading the word about your company all around the world. If you have a good website with good content related to information, products or services, people are more likely to link your website to theirs. This means they recognize your website as valuable.

Better Relationship

Having a website can build better relationships with your customers. You can send messages instantly to your customers through email. Also, your customers can review your products online and can also leave feedback for you and your business. It's best to always send your customer a message. This is essential for building a good relationship with them. You can even give them more information about your business through messages or emails.

Increase Sales

If you are a business owner, more visitors leads to more potential sales. That's how your website will help you. You can drive more people to your site by consistently updating and promoting the contents of your site. The more informative your site is, the greater the possibility of increasing your sales.

Opportunity

A website gives you the opportunity to prove your credibility. You have to tell your customers why you deserve their trust through your website. This can earn positive feedback for your service and products. Also, your website serves as a place for a potential investor to explore what your business is about and what it can do in the future.

Long Term Clients

What do you think is the difference between client and a customer? Well, a customer is the one who walks in and buys something and that's it. A client is your regular customer. He is buying your products or services daily or contractually. Having a website gives you a chance to gain more clients that can help your business grow.

25. a) Give *three* features of an electronic word processor interface.   (3 marks)

Wordwrap: automatic arrangement of text in lines of specified length without the necessity of touching the return key.

Discretionary Hyphenation: option of inserting a hyphen to break a word that ends a line: the hyphen does not print if later editing moves the word to the middle of a line.

Justification: automatic alignment of text to both the left and right margins.

Adjustment: realignment of text to new margin and tab settings.

Alignment: positioning text or numbers to specified margin and tab settings.

Decimal Alignment: positioning columns of numbers with the decimal points vertically aligned.

Indents: the setting of temporary margins within a document differing from the primary margins used.

Centering text on a line.

Insertion: the entry of new text within previously typed material without erasing the existing material.

Overstriking: the substitution of new text for old by typing over the old text.

Deletion: erasure of text from the screen, or of whole documents from the disk.

Search and Replace: moving directly to specified words or parts of words within a document and replacing them with different words or word portions.

Copying or Cutting: the duplication or moving of blocks of text within a document.

Boilerplate: the separate storage and retrieval of blocks of text from which standard documents can be built.

Pagination: automatic division of a document into pages of specified numbers of lines.

Page Numbering: automatic sequential numbering of pages.

Headers and Footers: option of creating standard blocks of text that will automatically appear at the top or bottom of each page in a document.

Footnoting: automatic sequential numbering of footnotes and positioning of the footnotes at the bottom of their appropriate pages during pagination.

Table of Contents and Index Generators. Programs that create these based on the text of a document.

Form Letter Merging: automatic combining of a form letter with a mailing list to generate multiple copies of the letter with the different addresses and other variable information filled in.

Automatic Spelling Checker and Corrector. Program that compares words in the text against an on-line dictionary, flagging items not found in the dictionary and offering alternative spellings and a means of correcting the errors.

b) List *three* examples of electronic word processor. **(3 marks)**

- Microsoft word.
- Lotus word perfect.
- Word star
- Open office writer
- Abi word
- Corel word perfect
- Apple works

c) Give one use of each of the following electronic presentation features

i) Slide master: (2 mark)

Refers to the top slide in hierarchy that can affect changes to all other presentations.

ii) Slide sorter view: (2 mark)

Displays the entire presentation so that one can add delete and move slides

26. (a) (i) Distinguish between a browser and E-mail Software. **(2marks)**

A browser is a software application that allows people to access, retrieve and view information on the internet.

While

E mail software refers to the transmission/exchange of computer stored messages to one or more recipients over a network

(ii) Give two examples of each software in (a) (i) above.

Browser. (2marks)

The most popular web browsers currently in use are Firefox, Google Chrome, Internet Explorer, Opera and Safari.

E-mail (2marks)

- Ms outlook express
- Eudora light
- Web mail

(b) What is meant by the following terms?

(i) Search engine.   (1mark)

A search engine is a software program used to find websites, webpages and files on the internet by typing in keywords.

(ii) Multimedia   (01mark)

Multimedia is the field concerned with the computer-controlled integration of text, graphics, drawings, still and moving images (Video), animation, audio, and any other media where every type of information can be represented, stored, transmitted and processed digitally.

Or

Multimedia means that computer information can be represented through audio, video, and animation in addition to traditional media (i.e., text, graphics drawings, and images).

(c) State two examples of web authoring software   **(2marks)**

A web authoring software is specifically designed to allow you to create web pages and web sites. Examples include Dreamweaver and Microsoft Front Page.

SECTION C (20 MARKS)

Answer only one question from this section. Answers to this question must be done on the answer booklet/sheets provided.

27. (a) Describe any four services that are provided by the internet.   (08 marks)

Worldwide web (WWW)

Is a collection of electronic documents.   **ANY 4X2=08**

E- mail (electronic mail)

Is the transmission of messages via a computer network e.g local area network

File transfer protocol (FTP)

Is an internet standard that allows computer to upload and download files with other computers.

Video conferencing

Is a meeting between two or more geographically located people who use a network to transmit audio and video data on a network.

Chat rooms

Is a location on the internet server that permits users to chat with each other by typing lines of text on the computer.

Instant messaging

Is a real time communication service that notifies a user when one or more people are online and allows a user to exchange messages.

Electronic commerce

Is the buying and selling of goods and services via internet.

Electronic banking

Is the process of making financial transactions online.

Electronic learning.

Is an internet service that allows people to learn and get online studies through online institution.

News groups

Is an online area where users conduct written discussion about a particular subject.

Internet telephony

Is a web based telephone service that allows a user to talk to others for just the cost of internet connection.

Wealth of information

Internet provides news from any part of the world to people

(b) Explain the functions of any four devices that can be used to connect the internet. (12 marks)

Hub: This is a hardware device that is used to network multiple computers together

Switch.

Is a device that forwards and filters data communication between ports based on the packets.

Modem (modulator de modulator)

Is a communication device that converts between analog and digital signals

It can also be defined as an electronic device that allows computers to communicate over ordinary telephone lines.

- Host computer
- Communication media such as VSAT, wireless antenna or telephone line.

ANY 4X3= 12

28. (a) Outline the advantages of networking over standalone computer. (08marks)

It enhances communication and availability of information.

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It is highly flexible. This technology is known to be very flexible, as it gives users the opportunity to explore everything about essential things, such as software without affecting their functionality. Plus, people will have the accessibility to all information they need to get and share.

It is an inexpensive system. Installing networking software on your device would not cost too much, as you are assured that it lasts and can effectively share information to your peers. Also, there is no need to change the software regularly, as mostly it is not required to do so.

It boosts storage capacity. Since you are going to share information, files and resources to other people, you have to ensure all data and content are properly stored in the system. With this networking technology, you can do all of this without any hassle, while having all the space you need for storage.

It Facilitates easy communications e.g. through Electronic mail

It Reduces on cost by sharing hardware like printers and sharing software among network users since one device is jointly used on the network instead of installing devices to each computer.

It allows for tight control over who has access to data in the system

It enables sharing of data and information stored on any other computer on the network.

It enables online learning and collaborative research

It allows access to free common databases and databanks like free software and ATM services.

Software is easily upgraded on the network since it is done at ago on the server.

Computer networks enable centralized administration, control and monitoring of individual users on the network.

Computer networks enable workgroup Computing. Workgroup software allows many users to work on a document or project concurrently.

It enables flexible access. Users can log on and access their work from any workstation on the network. **ANY 8X1=08 MARKS**

(b) Using illustrative diagrams, describe the various forms of LAN topologies.   (12marks)

Mention   **=1mark**

Explain   **=1mark**

Diagram   **=1mark**

Subtotal   **=3marks**   **ANY 4X3=12 MARKS**

BUS

Bus network topology is one that consists of a main, central cable known as the backbone with a terminator at each end of it, on cable all devices on the network are connected to the main/central cable.
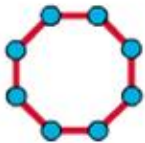
Illustration

RING

This is an arrangement where each device on the network is directly connected to one another in the shape of a closed loop or ring.

Each data packet is sent around the ring until it reaches its final destination.

Illustration

STAR

A star is a topology designed with each device on the network connected directly to a central network hub or switch such that Data from a device passes through the hub or switch before continuing to its destination.
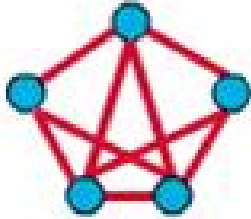
Illustration

MESH

Mesh topology is a network setup where each computer and network device is interconnected with one another, allowing for most transmissions to be distributed, even if one of the connections go down.

Illustration

TREE TOPOLOGY

This is a network that combines characteristics of bus and star topologies; It consists of groups of star connected workstations connected to a bus backbone cable. Tree topologies allow for the expansion of an existing network, and enable organizations configure a network to meet their needs

Illustration

29. (a) Why do people prefer to use flash disks over floppy disks today? (04 marks)

- They are portable
- They are cheap   **ANY 4X1=04 MARKS**
- They have random access of data
- Have relatively large storage capacity compared to floppies

(b) Outline the ways computers and data may be protected against viruses. (16 marks)

A computer virus is program code which 'hides' in other files and can cause irreparable
damage to your computer. Computer viruses spread easily between computers when
People pass files to each other.

The ways computers and data may be protected against viruses.   **ANY 8X2= 16 MARKS**

- Never open unsolicited email attachments, even if they appear to come
  from friends or colleagues.

- Always save the file attachment to disk - do not open it immediately - and scan the file using your installed Virus checker.

- Ensure that you are running the latest virus protection

- Scanning all downloads

- Installing up-to-date antivirus softwares

- Educating the users about viruses and how they affect us.

- Ensure that e-mails are from secure and trusted sources before opening them

- Educating the organization and making policies for users to follow

- Backup important files regularly

- Write protect the recovery disk before using them

- Never start up a computer system with a floppy disk in the drive.