

Signature.....

[illegible]

SECTION A (20 MARKS)

Attempt all questions

1. John Napier invented calculating rods called
A. Calculators
B. Napier's bones
C. Arithmetic machine
D. Napier's rods ☐
2. Which of these generations in the evolution of computers is characterized by the use of very large integrated circuits?
A. First generation
B. Second generation
C. Third generation
D. Fourth generation ☐
3. Which of these is the easiest to carry from one place to another?
A. Super computers
B. Main frame
C. Mini computers
D. Lap tops ☐
4. The ability of computers to handle more than one task is called?
A. Mobility
B. Versatility
C. Analog
D. Multiple ☐
5. Tangible components of a computer are called?
A. Equipment
B. Hardware
C. Software
D. Live ware ☐
6. How many bits are found in the word MAD?
A. 3
B. 8
C. 12
D. 24 ☐
7. Which of the following is a group of operating systems?
A. DOS, Windows NT and UNIX
B. Lotus, windows 98 and Excel
C. Spreadsheet, Linux and DOS
D. Windows NT, DOS and word ☐
8. Formatting a disk does one of the following.
A. Makes the letters bold
B. Changes the font type
C. Erases the content
D. Increases the indent ☐
9. Which of the following are done in word processing?
A. Writing letters, formatting disks and processing graphics

- B. Creating, saving and printing of documents.
C. Printing of documents, information sharing and processing work
D. Documenting, processing and sending information ☐
10. Which of the following utilities can provide words that have the same meaning?
A. Spell checker
B. Auto correct
C. Thesaurus
D. Grammar checker ☐
11. In spreadsheets, rows and columns intersect to form?
A. Cells
B. Work area
C. Cell pointer
D. Cell area ☐
12. In spreadsheets, Row 6 and Column D form a cell reference?
A. 6D
B. D6
C. 6:D
D. D:6 ☐
13. The electronic transfer of text messages from one geographical location to another using computer is referred to as;
A. Internet communication
B. Electronic mail
C. Downloading
D. Uploading ☐
14. Which of the following is a primary database structure?
A. Form
B. Query
C. Report
D. Table ☐
15. Which one of the following software displays slides as an output?
A. Presentation
B. Word processing
C. Spreadsheets
D. Internet explorer ☐
16. Which is the most appropriate data type for a photograph in a database?
A. Texts
B. Hyperlink
C. OLE objects
D. Field ☐
17. Which one of the following statements, best explains the term "Internet"?
A. E-mail
B. International connections
C. Global connection of computers
D. Globalization.
18. What does a slide master do?

- A. It controls sound and transition ☐
- B. It controls animation
- C. It controls graphics and movies
- D. It controls certain text characteristics and background
19. Which of the following can be used in web publishing? ☐
- A. Slide master
- B. E-mail
- C. Hyperlinks
- D. LAN
20. As computer technology advances, ☐
- A. The size of computers also advances
- B. The size of computers reduces
- C. The size of computers remain normal
- D. The cost of computers will be high

SECTION B (60 MARKS)

Attempt any four questions

21. (a) RAM and ROM are two different types of memory found in a computer.
 (i) What do the abbreviation **ROM** and **RAM** stand for? (02 marks)

.....

.....

- (ii) State two differences between **ROM** and **RAM**. (02 marks)

.....

.....

- (iii) Where is each of this applied? (02 marks)

.....

.....

- (b) Compact Disc-ROM devices are now used to store games, state **three** advantages and **one** disadvantage of supplying games on the above mentioned devices. (04 marks)

.....

.....

- (c) (i) State **four** precautions which should be taken to prevent viruses from affecting computers.

(04 marks)

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.....

- (ii) Explain the term **computer virus**. (01 mark)

.....

.....

22. Staff in a firm of Solicitors uses type writers for all letters and forms. The firm decides to introduce word processors to make the office work more efficient.

- (a) State **three** reasons why this change may worry some office staff? (03 marks)

.....

.....
 (b) After sometime, most of the staff finds out that the word processors make their jobs easier. Mention **three** reasons why their jobs are made easier?
 (03 marks)

.....
 (c) What word processors function, would you use to;
 (i) Make headings more obvious (01 mark)

(ii) Type an address at the right of a document. (01 mark)

(iii) Produce a draft document with space between the lines. (01 mark)

(iv) To make changes to a document in the following way; Italicizing, changing font color and underlining.
 (01 mark)

(d) is a word processor that uses **ONLY** a key board in its operation?
 (01 mark)

(e) What is the difference between **lower case** and **upper case**.
 (02 marks)

(f) Explain what is meant by the term **"Save As"**?
 (02 marks)

.....
 23. The spreadsheet below shows **"THE KATUNKUMA COLLEGE SHOP SALES"**

1	A	B	C	D	E	F	G	H
2	THE KATUKUMA COLLEGE SHOP SALES							
3	Day	I.C	Sale s	Costs	Incom e	Profit	Profit %	Donatio n
4	Monday	William	45	\$15.5 0	\$15.5 0	\$4.2 0	\$27.10	\$1.05
5	Tuesday	Katherine	53	\$18.6 3	\$18.6 3	\$5.8 5	\$31.24	\$1.46
6	Wednes day	Jennifer	37	\$11.8 0	\$11.8 3	\$3.9 7	\$31.24	\$0.99
7	Thursda y	Christoph er		\$21.2 0	\$21.2 0	\$5.4 5	\$34.58	\$1.36
8	Friday	Joanna	64	\$19.2 5	\$19.2 5	\$5.6 5	\$25.71	\$1.41

9		Total	271	\$86.06	\$86.06	\$25.09	\$29.35	\$6.27
10		Average	54.1	\$17.21	\$17.21	\$5.02	\$29.15	\$

The Shop sales spreadsheet showing the result of changing a charity percentage to 25%

(a) State the entry for the cell below **G5** (01 mark)

(b) (i) What is the formula used to calculate the **total cost**? (01 mark)

(ii) Find the entry in **C7** (01 mark)

(c) If the range of cells from A4 to A8 is A4:A8, given the range for (i) The four cells below **G7** (02 marks)

(ii) The four cells to the left of **G7** (02 marks)

(iii) What else can you put in spreadsheets cells besides **text** and **numbers**? (01 mark)

(d) Name **three** different operations, which you would expect in a spreadsheet cell? (03 marks)

(e) Name **three** different types of number format you would expect in a spreadsheet cell? (03 marks)

24. (a) What is meant by the following terms

(i) **E-mail** (02 marks)

(ii) **Internet** (02 marks)

(b) Explain briefly how the **Internet** can be used as a learning tool. (03 marks)

.....
(c) Mention

(i) **Four** advantages of the Internet (04 marks)

.....
.....

(ii) **Four** disadvantages of the Internet (04 marks)

.....
.....

25. (a) List **five** examples of data types that can be in a record. (05 marks)

.....
.....

(b) Outline the function of each of the **data types** listed in (a) above (05 marks)

.....
.....

(c) Differentiate between a **field** and an **attribute**, give an example of each. (02 marks)

.....
.....

(d) Outline the importance of a **primary key** in a database. (01 mark)

.....
.....

26. (a) What is meant by the following terms

(i) **HTML** (02 marks)

.....
.....

(ii) **Website** (02 marks)

.....
.....

(b) State **three** advantages of web publishing. (03 marks)

.....
.....

.....
(c) Describe how a **web page** is a source of information. (04 marks)

.....
.....

.....

(b) What is the difference between **WWW** and **Web page**. (04 marks)

.....
.....
.....
SECTION C (20 MARKS)

Attempt any one question

27. You are given an assignment to create, design and present a polio awareness presentation. How do you carry out the above? (20 marks)

28. "Computers have changed today's ways of life". Discuss. (20 marks)

29. "Computers are required both as a tool and as an occupation" Discuss. (20 marks)

SOLUTIONS TO UNEB 2000

SECTION A (20 MARKS)

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

SECTION B

30. (a) RAM and ROM are two different types of memory found in a computer.
(i) What do the abbreviation **ROM** and **RAM** stand for? (02 marks)

- ROM Stands for Read Only Memory
- RAM Stands for Random Access Memory

(ii) State two differences between **ROM** and **RAM**. (02 marks)

RAM	ROM
• RAM is read and write	• ROM is read only
• RAM is volatile	• ROM is non volatile
• RAM can be increased	• ROM is not normally increased
• RAM is temporary	• ROM is permanent

(iii) Where is each of this applied? (02 marks)

- ROM is used to store software and configurations used in booting a computer.
- RAM is used to store programs apparently used when the computer is working.

(b) Compact Disc-ROM devices are now used to store games, state **three** advantages and **one** disadvantage of supplying games on the above mentioned devices. (04 marks)

Advantages

- A compact disc is more portable than other storage devices
- The games are permanent (ROM cannot be rubbed off)
- Can be stored for a long time
- It can last up to 50 years when properly cared
- It can contain text, graphics, videos and sound

Disadvantages

- Can be attacked by a virus
- Can be scratched hence distortion
- Some kinds of compact discs are read only (CD-ROM and DVD-ROM)

(c) (i) State **four** precautions which should be taken to prevent viruses from affecting computers.

(04 marks)

- Ensure your computer has the latest anti-virus
- Ensure that your anti-virus program is actually switched on
- Ensure that the e-mail is from a trusted source before opening it
- Never start up a computer with an infected floppy disk in the floppy drive
- Scan all floppy disks and files for possible virus infection before opening them

(ii) Explain the term **computer virus**. (01 mark)

A computer virus is a program designed to alter the way your computer functions, without your knowledge or consent.

22. (a) Staff in a firm of Solicitors uses type writers for all letters and forms. The firm decides to introduce word processors to make the office work more efficient. State **three** reasons why this change may worry some office staff?

(03 marks)

- It could cause an employment to them
- They could be computer illiterate
- The maintenance costs are high

(b) After sometime, most of the staff finds out that the word processors make their jobs easier. Mention **three** reasons why their jobs are made easier?

(03 marks)

- It makes work easy
- It can store work for future use
- It can print work of better quality

(c) What word processors function, would you use to;

(v) Make headings more obvious

(01 mark)

Bold

(vi) Type an address at the right of a document.

(01 mark)

Right align

- (vii) Produce a draft document with space between the lines. (01 mark)

Line spacing

- (viii) To make changes to a document in the following way; Italicizing, changing font color and underlining. (01 mark)

formatting

- (d) is a word processor that uses **ONLY** a key board in its operation? (01 mark)

DOS Editor

Word perfect

- (e) What is the difference between **lower case** and **upper case**. (02 marks)

Uppercase is composed of capital letters and lowercase is composed of small letters

- (f) Explain what is meant by the term "**Save As**"? (02 marks)

This is a document used to effect the process of saving documents from the memory storage to a permanent storage or from one drive to another and also when changing a name of a document to another.

23. The spreadsheet below shows "**THE KATUNKUMA COLLEGE SHOP SALES**"

1	A	B	C	D	E	F	G	H
2	THE KATUNKUMA COLLEGE SHOP SALES							
3	Day	I.C	Sales	Costs	Income	Profit	Profit %	Donation
4	Monday	William	45	\$15.50	\$15.50	\$4.20	\$27.10	\$1.05
5	Tuesday	Katherine	53	\$18.63	\$18.63	\$5.85	\$31.24	\$1.46
6	Wednesday	Jennifer	37	\$11.80	\$11.83	\$3.97	\$31.24	\$0.99
7	Thursday	Christopher		\$21.20	\$21.20	\$5.45	\$34.58	\$1.36
8	Friday	Joanna	64	\$19.25	\$19.25	\$5.65	\$25.71	\$1.41
9		Total	271	\$86.06	\$86.06	\$25.09	\$29.35	\$6.27
10		Average	54.1	\$17.21	\$17.21	\$5.02	\$29.15	\$

The Shop sales spreadsheet showing the result of changing a charity percentage to 25%

- (a). State the entry for the cell below **G5** (01 mark)

\$31.24

- (b) (i) What is the formula used to calculate the **total cost**? (01 mark)

=sum(D4:D8)

- (ii) Find the entry in **C7** (01 mark)

=sum(C4:C8) – (C4+C5+C6+C8)

- (c) If the range of cells from A4 to A8 is A4:A8, given the range for

- (i) The four cells below **G7** (02 marks)

G8:G11

(ii) The four cells to the left of **G7** (02 marks)
G7:K7

(iii) What else can you put in spreadsheets cells besides **text** and **numbers**?

(01 mark)

- Formulas
- Alphanumeric

(d) Name three different operations, which you would expect in a spreadsheet cell? (03 marks)

Symbol	Description	example
• ()	Parentheses	=B3*(B1+B6)
• *	Multiplication	=B2*C6
• /	Division	=(B3/C9)
• +	Addition	=(B3+C5)
• %	Percentage	=C5*75%
• -	Subtraction	=(C3-C6)
• ^	Exponential	=B3^5

(e) Name **three** different types of number format you would expect in a spreadsheet cell?

(03 marks)

- | | |
|------------|--------------|
| • General | • Percentage |
| • Number | • Fraction |
| • Currency | • Accounting |
| • Date | • Custom |
| • Time | • Special |

24. (a) What is meant by the following terms

(iii) **E-mail** (02 marks)

This is the transfer of electronic messages from one geographical location to another using computers and related computerized devices.

(iv) **Internet** (02 marks)

This is the global connection of computers whereby access to information worldwide is enhanced.

(b) Explain briefly how the **Internet** can be used as a learning tool. (03 marks)

- Computer Assisted Instructions (CAI), so that teachers can use computers and other IT equipment to present teaching materials in a more interesting way.
- Computer Assisted Learning (CAL), so that students can use computers and appropriate software to learn at their own pace.
- Computer Assisted Assessment (CAA), which may reduce the time and labour to mark the answer scripts.
- Distance learning through computer – based training and Web – based training.

- Electronic library system for searching, borrowing and returning books.
- The school Administration and management System (SAMS) for keeping records of students and producing report cards or other related documents.

(c) Mention

(i) **Four** advantages of the Internet (04 marks)

- Enhancement of communication
- Access to information worldwide
- Shop for goods and services
- Provide information to the public

(ii) **Four** disadvantages of the Internet (04 marks)

- There is no privacy for information
- Information control is limited
- Illegal material is in plenty
- Piracy

25. (a) List **five** examples of data types that can be in a record. (05 marks)

- | | |
|----------------------|---------------------------------------|
| • Memo | • OLE Object |
| • Text | • Hyperlink |
| • Number | • Lookup wizard |
| • Date/Time | • Logical / Boolean data types |
| • Currency | • (Yes/No. True/False) |
| • Auto-number | |

(b) Outline the function of each of the **data types** listed in (a) above (05 marks)

- Text type which may hold letters, numbers or special characters
- Memo type which may contain text of any type or length
- Numeric type which may hold day, month and year information
- Currency type which may hold dollar and cents amounts
- Boolean type which may hold values that is true or false
- OLE object for holding pictures

(c) Differentiate between a **field** and an **attribute**, give an example of each. (02 marks)

A field is a unit of data yet an attribute is a group of fields or columns in a table.

Examples:-

A field is a unit of data consisting of one or more characters e.g Your address name.

Attribute in relation to database is a column

(d) Outline the importance of a **primary key** in a database. (01 mark)

A primary key is used to ensure that there are no duplicate fields in a table.

26. (a) What is meant by the following terms

(iii) **HTML** (02 marks)

Hyper Text Markup Language is a language (text codes) used on the Internet.

(iv) **Website** (02 marks)

Is an electronic page that has links with other pages and contains information and data.

(b) State **three** advantages of web publishing. (03 marks)

- Easy access to information
- Electronic commerce (E-commerce)
- Easy communication

(c) Describe how a **web page** is a source of information. (04 marks)

- It is a source of information in terms of research getting information on the internet.
- Education online connectivity
- Advertisement
- Entertainment

(b) What is the difference between **WWW** and **Web page**. (04 marks)

WWW (worldwide web) which is a system of Internet server that support the hypertext markup language documents and a web page is a file of information stored on a web server.

Signature.....

COMPUTER STUDIES

Nov. /Dec. 2002

UGANDA NATIONAL EXAMINATION BOARD

COMPUTER STUDIES

2 hours 30 minutes

Section **C** contains **three** essay questions. Answers to section **C** **must** be written in the answer booklets provided.

[illegible]

SECTION A (20 MARKS)

1. Which is the best characterizes the mechanical era (1623-1945) computer evolution?
A. Napier's bones
B. Programming languages
C. Leibniz calculator
D. Multics ☐
2. A person who accesses computer system illegally is referred to as?
A. Criminal
B. Pirate
C. Hacker
D. Wizard ☐
3. Which of these best describes categories of computers system?
A. Analog and digital computers
B. Micro and analog computers
C. Windows and DOS
D. Digital and mainframe computers ☐
4. The following are possible with a computer except?
A. Speed and versatility
B. Documentation and report making
C. Scheduling
D. Thinking ☐
5.is the permanent type of memory found in computer systems.
A. RAM
B. ROM
C. CPU
D. ALU ☐
6. How many bits are found in the word INPUT?
A. 5
B. 35
C. 40
D. 56 ☐
7. Which of the following is a system software?
A. Spreadsheet
B. BASIC
C. Linux
D. Microsoft word ☐
8. The following are storage media except?
A. Printer
B. CD-ROM
C. Tapes
D. Diskettes ☐
9. Which of the following is an application software?
A. Windows

- B. Computer games
C. COBOL
D. DOS
10. In word processing the feature where a word which does not fit on a line automatically moves to the next line is called.....
- A. Carriage return
B. Entering
C. Scrolling
D. Word wrap
11. is the intersection of a row and a column in spreadsheet
- A. A pointer
B. An address
C. A cell
D. A record
12. is an address that does not change when a formula is copied to another location in spreadsheet.
- A. Absolute address
B. Relative address
C. Mixed address
D. Formula address
13. A computer service that enables users to send or receive messages is called.
- A. Internet
B. WWW
C. Browsing
D. E-mail
14. A network that connects computers in the same building is called
- A. BUS
B. LAN
C. WAN
D. MAN
15. is the best for creating, sorting and retrieving large volumes of related information.
- A. Microsoft word
B. Database
C. An e-mail
D. A word file
16. Identify one of the following that is an odd operation of database.
- A. Creating slides
B. Creating a database structure
C. Defining fields
D. Calculating statistics for groups of records
17. The following are done using a presentation software except.
- A. Creating an organizational chart
B. Creating graphic objects
C. Creating a query
D. Adding video clips

18. Identify one of these that represent an application of a presentation software.

- A. Displays an e-mail message
- B. Desktop publishing
- C. Printing and addressing set of letters
- D. A visual aid to enhance communication

☐

19. The following best describes the purpose of a web page

- A. Making money on the Internet
- B. Creating awareness about something on the Internet
- C. Uploading files on the Internet
- D. Downloading files from the Internet

☐

20. Which of these is likely to happen in future about the Internet?

- A. Very expensive
- B. Faster connection
- C. Fewer users
- D. Extensive use of wires

☐

SECTION B (60 MARKS)
Attempt any four questions

21. (a) What is meant by the term **computer generation**?
mark)

(01

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.....

(b) State **five** difference between the first and fourth generation of computers.

(05 marks)

.....
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.....

(c) (i) Define **Digital Computers**?

(01 mark)

.....

(ii) Give **two** main differences between digital and analog computers.
marks)

(02

.....

(d) (i) What is **computer Hardware**.
mark)

(01

.....

(ii) List **five** examples of hardware devices.
marks)

(05

.....
.....
.....

22. (a) Write **DOS** in full.

(01 mark)

.....
(b) State **four** differences between **DOS** and **Windows**. (04 marks)
.....
.....

.....
(c) (i) Define **application software**. (01 mark)
.....
.....

.....
(ii) Give any **two** distinctions between **word processing** and **desktop publishing**. (02 marks)
.....
.....

.....
(d) State **four** uses of a word processor. (04 marks)
.....
.....

.....
23. (a) Define the following terms.
(i) **Internet** (01 mark)
.....
.....

.....
(ii) **Intranet** (01 mark)
.....
.....

.....
(b) Give **two** differences between **Internet** and **Intranet**. (02 marks)
.....
.....

.....
(c) Explain the following Internet terms.
(i) **TCP** (01 mark)
.....
.....

.....
(ii) **IRC** (01 mark)
.....
.....

.....
(d) State **three** factors affecting computer communication speed over the Internet. (03 marks)
.....
.....

.....
(e) Mention **four** requirements needed to connect to the Internet. (04 marks)
.....
.....

24. (a) What is the meaning of these terms?

(i) **Worksheet**

(01 mark)

(ii) **Active cell**
mark)

(01

The spreadsheet below shows sales of a second hand cloth store in a given week. Answer questions (b) to (d) on the spreadsheet.

A		B	C	D	E	F
1	SECOND HAND – CLOTH STORE					
2	Day	Dept	Units Sold	Cost Price (\$)	Selling price (\$)	Profit (\$)
3	Monday	Shirts	46	16.50	20.00	3.50
4	Tuesday	Shirts	60	18.70	30.00	12.00
5	Wednesday	Shirts	36	11.40	16.00	
6	Thursday	Shirts		21.30	26.00	5.13
7	Friday	Shirts	60	19.25	21.00	2.65
8		Totals	300	87.15	115.63	29.43
9		Average	60	17.43	23.13	5.90

(b) State the entry for cell **E6**
mark)

(01

(c) What is the formula used to calculate the;

(i) Totals for

- Units sold

(01 mark)

- Selling

(01 mark)

- Profits
mark)

(01

(ii) Average for

- Units sold

(01 mark)

- Cost price

(01 mark)

- Selling

(01 mark)

(d) Find entries

- o **F5**

(02 marks)

o C6 (02 marks)

.....

(e) State **two** examples of spreadsheet programs. (02 marks)

.....

25. (a) Explain the meaning of the following database terms (01 mark)

(i) **Forms**

.....

(ii) **Query** (01 mark)

.....

(b) Differentiate between;
(i) A **field** and a **record** in a database (02 marks)

.....

(ii) Give an example of each
• **Field** (01 mark)

.....
• **Record** (01 mark)

(c) How would you do the following using a word processor?
(i) Put space between sentences (01 mark)

.....
(ii) Put a title/heading in the middle of a line (01 mark)

.....
(iii) Make changes to a document (01 mark)

.....
(iv) Get a hard copy of a document (01 mark)

.....
(d) State **three** differences between floppy disks and compact disks. (03 mark)

.....

26. (a) Explain the following (02 marks)

(i) **HTML**

.....
.....
(ii) **Website** (02 marks)

.....
.....
(iii) **WWW** (02 marks)

.....
(b) (i) What is a web page address? (02 marks)

.....
(ii) Give any two examples that qualify as web page address. (02 marks)

.....
(c) (i) What is the difference between a web page and an HTML? (02 marks)

.....
(ii) Write URL in full? (01 mark)

.....
(iii) Outline three precautions that should be taken in a computer laboratory. (03 marks)

.....
SECTION C (20 MARKS)

Attempt any one question

27. What are the advantages and disadvantages of Internet in business today? (20 marks)

28. Explain briefly five advantages and five disadvantages of using computers.

(20 marks)

29. (a) What is a computer virus? (02 marks)

(b) Explain how computer viruses are spread. (18 marks)

**SOLUTIONS TO UNEB 2002
SECTION A (20 MARKS)**

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

SECTION B

1. (a) What is meant by the term **computer generation**? (01 mark)

- Computer generation is the technological advancement which has been classified into four generations

- (b) State **five** difference between the first and fourth generation of computers.

(05 marks)

FIRST GENERATION	FOURTH GENERATION
• Vacuum tubes for internal operation	• Large-scale and very large scale integration for internal operation
• Magnetic drums for primary memory	• SDRAM chips for primary memory
• Limited primary memory	• Pentium iv have minimum of 128MB of memory
• Low input processing speed and reality	• Fourth generation computers have high speeds of processing

	ranging from 2.0MHZ to 3.0MHZ
Increased use of high level languages	A variety of high level programming languages and OOP language
Programming system	Fourth generation computers need no special language for each processor

(c) (i) Define **Digital Computers**? (01 mark)

- Digital computers are computers which produce their information in binary codes.

(ii) Give **two** main differences between digital and analog computers. (02 marks)

Digital computers	Analog computers
Produce data in discrete form	Produce data in continuous form
Not continuous (discrete pulse)	Continuous voltage
Can only have one of two voltage levels	Can have any voltage levels
Voltage jumps between levels	Wave voltage as time progress

(d) (i) What is **computer Hardware**. (01 mark)

- These are physical pieces of equipment comprising of electronic and electromechanical parts of the computer.

(ii) List **five** examples of hardware devices. (05 marks)

- Input hardware like mouse, keyboard
- Storage hardware that is primary and secondary
- Output hardware such as printers and plotters
- Communications hardware like modems and cables

2. (a) Write **DOS** in full. (01 mark)

- Disk Operating System

(b) State **four** differences between **DOS** and **Windows**. (04 marks)

DOS- Command line interface	Windows- Graphical user interface
A command line interface takes up little memory and does not require a very fast processor	Graphical user interface needs or requires more memory as well as a fast processor
Operation is fast because commands can be entered directly through the keyboard.	Operations in a window environment depend on the powerfulness of the processor with 3.1
Many commands can be grouped together as a batch file so that repetitive tasks can be automated	It is difficult to automate functions for expert users
Commands have be memorized	Graphical user interface is user friendly because it is easy to learn and work with.

Commands have be memorized	Commands need not to be memorized because the commands are represented in icons and pictures
----------------------------	--

(c) (i) Define **application software**. (01 mark)

Application software refers to programs that perform specific tasks for users.

(ii) Give any **two** distinctions between **word processing** and **desktop publishing**. (02 marks)

Word processors are used to create, edit, format, save and print documents that contain text and graphics while Desktop publishing software is used to design and produce complicated documents that contain text, graphics and brilliant colors.

Text editors are simple word processors and are generally used to type with anti-special formatting are mainly used to write small notes, memos and programs while DTP is ideal for the production of high quality color documents such as newsletters, catalogs, textbooks and annual reports.

(d) State **four** uses of a word processor. (04 marks)

- Letters
- Memos
- Reports
- Mailing reports

3. (a) Define the following terms.

(iii) **Internet** (01 mark)

Internet is a worldwide collection of networks linked together for resource sharing.

(iv) **Intranet** (01 mark)

Intranet is a small version of the internet used within an organization.

(b) Give **two** differences between **Internet** and **Intranet**. (02 marks)

Internet is a worldwide collection of networks linked together for resource sharing while Intranet is a small version of the internet used within an organization.

(c) Explain the following Internet terms.

(i) **TCP** (01 mark)

TCP – Transmission Control Protocol is a set of rules used along with Internet protocol to send and receive messages.

(ii) **IRC** (01 mark)

IRC – Internet Relay Chatting is a service on the Internet that allows users to chat with each other by typing lines of text on the computer.

(f) State **three** factors affecting computer communication speed over the Internet.

(03 marks)

- The transfer rate of transmission medium depends on the medium's bandwidth and its speed.
- The transfer rate is the speed of transmitting data and information.
- Capacity of hardware – hubs, switches and network interface cards have their own maximum speeds.
- The server – amount of RAM and the speed of the hard disk
- Location of software and files – storing software on the workstation's hard disks reduce network traffic and speed up performance.

(g) Mention **four** requirements needed to connect to the Internet. (04 marks)

- An ISP to supply the Internet
- A PC (computer with a network card)
- Network operating system
- A browser (Internet explorer or Netscape navigator)
- Communication media (Physical cables eg twisted pair, coaxial cable or wireless communication eg Wireless antenna, microwave infrared)

4. (a) What is the meaning of these terms?

(iii) **Worksheet** (01 mark)

This is composed of row and columns in a spreadsheet workbook.

(iv) **Active cell** (01 mark)

This is where the cursor is placed at a particular time.

The spreadsheet below shows sales of a second hand cloth store in a given week. Answer questions (b) to (d) on the spreadsheet.

A	B	C	D	E	F	
1	SECOND HAND – CLOTH STORE					
2	Day	Dept	Units Sold	Cost Price (\$)	Selling price (\$)	Profit (\$)
3	Monday	Shirts	46	16.50	20.00	3.50
4	Tuesday	Shirts	60	18.70	30.00	12.00
5	Wednesday	Shirts	36	11.40	16.00	
6	Thursday	Shirts		21.30	26.00	5.13
7	Friday	Shirts	60	19.25	21.00	2.65
8		Totals	300	87.15	115.63	29.43
9		Average	60	17.43	23.13	5.90

(b) State the entry for cell E6 (01 mark)

26.00

(c) What is the formula used to calculate the;

(i) Totals for

- Units sold (01 mark)
=SUM(C3:C7)
- Selling (01 mark)
=SUM(E3:E7)
- Profits (01 mark)
=SUM(F3:F7)
- (ii) Average for
 - Units sold (01 mark)
=AVERAGE(C3:C7)
 - Cost price (01 mark)
=AVERAGE(D3:D7)
 - Selling (01 mark)
=AVERAGE(E3:E7)
- (d) Find entries
 - o **F5** (02 marks)
=(F8) – (F3+F4+F6+F7)
29.43 – 3.50+12.00+5.13+2.65
29.43 – 23.28
6.15
 - o **C6** (02 marks)
=(C8) – (C3+C4+C5+C7)
300 – 46+60+36+60
300 – 202
98
- (e) State **two** examples of spreadsheet programs. (02 marks)
 - Lotus 1-2-3
 - Microsoft excel
 - Apple numbers
 - Open office calc
 - Up-planner

5. (a) Explain the meaning of the following database terms

(iii) **Forms** (01 mark)

Forms provide alternative to tables of data entry and viewing records.

(iv) **Query** (01 mark)

Query is used to locate specific records within the table or ask questions to your database.

(b) Differentiate between;

(i) A **field** and a **record** in a database (02 marks)

A field is a column in a table that contains a specific piece of information within a record. (It is a piece of information in a record)

A record is a row in a table that contains information about a given person,

product or event. (An individual entry in a table)

(ii) Give an example of each

- **Field** (01 mark)

First name

- **Record** (01 mark)

Claire

(c) How would you do the following using a word processor?

(i) Put space between sentences (01 mark)

Spacebar

(ii) Put a title/heading in the middle of a line (01 mark)

Centre

(iii) Make changes to a document (01 mark)

Edit

Get a hard copy of a document (01 mark)

Print

(d) State **three** differences between floppy disks and compact disks. (03 mark)

Floppy diskette	CD disc
Storage capacity 1.44MB	Storage capacity 640MB
Access speed is slow compared to Compact Disk	Access speed is faster compared to floppy disk
Not durable	Durable if kept under the right conditions (no heat, dust, moisture and scratches)
Cannot handle multimedia because of access time	Popular in storing multimedia

6. (a) Explain the following

(iv) **HTML** (02 marks)

HTML is one of the main languages used to create web pages for the Internet

(v) **Website** (02 marks)

Websites is a collection of related web pages

(vi) **WWW** (02 marks)

WWW is worldwide web is a system of Internet server that support the hypertext markup language documents.

(b) (i) What is a web page address? (02 marks)

It is a uniform resource locator which is unique address of a web page.

(ii) Give any two examples that qualify as web page address. (02 marks)

- <http://www.mac.ac.ug>
- <http://www.yahoo.com>
- <http://www.google.co.ug>

(c) (i) What is the difference between a web page and an HTML? (02 marks)

A web page is a file of information stored on a web server and an HTML is one of

the main languages used to create web pages for the Internet.

(ii) Write URL in full?

(01 mark)

URL – Uniform Resource Locator

(iii) outline three precautions that should be taken in a computer laboratory. (03 marks)

- Switch on your computer hardware starting from the wall socket switch, UPS or stabilizer, computer then printer.
- Avoid making connections when power is on
- Avoid abrupt switching off and on the computer system
- Place the microcomputers in a dust free environment with good ventilation
- A micro computer should not be exposed to direct sunlight
- Do not open the computer for inside cleaning, this should be handled by a qualified person.

Name..... Centre/Index No. /

Signature.....

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COMPUTER STUDIES

PAPER 1

Nov. /Dec. 2003

2 hours 30 minutes

UGANDA NATIONAL EXAMINATION BOARD

Uganda Certificate of Education

COMPUTER STUDIES

Paper 1

2 hours 30 minutes

INSTRUCTIONS TO CANDIDATES:

Write your name, signature, centre and index number in the spaces above.

*This paper consists of three sections **A**, **B**, and **C**.*

*Section **A** contains **20** compulsory objective-type questions. The correct alternative **A**, **B**, **C** or **D** against each question must be written in the box provided on the right hand side of each question.*

*Section **B** contains six structured questions. Attempt any four questions.*

*Answer to section **B** answers **must** be written in the space provided in the question paper.*

*Section **C** contains **three** essay questions. Answers to section **C** **must** be written in the answer booklets provided.*

For Examiner's Use only

MCQ	Q21	Q22	Q23	Q24	Q25	Q26	Q27	Q28	Q29	Total

SECTION A (20 MARKS)

- Which of the following best describes a computer?
 - A machine
 - Electronic device for input
 - Electronic device for input and processing



- D. Electronic device for input, processing and output
2. How many generations have computers undergone?
- A. One
 - B. Three
 - C. Four
 - D. Five
3. Which of the following are categories of computers?
- A. Analog and microcomputers
 - B. Digital and mini computers
 - C. Analog and digital computers
 - D. Mini and micro computers
4. Which of the following is not a set of computer peripherals?
- A. Hard disk and floppy diskettes
 - B. Printer and modem
 - C. CD-ROM and magnetic tapes and wires
 - D. RAM and CPU
5. What is an operating system?
- A. A computer system
 - B. A set of logical instruction directing the computer what to do.
 - C. Software to produce documents
 - D. A set of people operating a computing a computer system.
6. Which of the following is a group of operating system?
- A. DOS, Windows NT, Windows95/98 and UNIX
 - B. Lotus 1-2-3, Dbase III, Ms Excel and UNIX
 - C. Sort utility, merge utility and backup utility
 - D. Word perfect, backup utility and DOS
7. Which of the following procedures can be used to open an existing document?
- A. Click the open button on the status bar
 - B. Choose file open
 - C. Double click the right column border on the worksheet frame
 - D. Dragging the column border on the work sheet frame
8. You can use the mouse pointer to place the insertion point anywhere in the document when it has the shape of
- A.
 - B. 
 - C.
 - D.
9. Which of the following is not a method of adjusting column width in a spreadsheet?
- A. Format, column width command
 - B. Edit, column width command
 - C. Double clicking the right column border on the worksheet frame
 - D. Dragging the column border on the worksheet frame
10. If the signals (#####) fill a cell, it means
- A. The cell is not active
 - B. The formula is impossible

- C. The column is not wide enough
D. You must recalculate the formula
11. Internet is defined as?
A. Combination of nets inside each other
B. Connection of a computer to a printer
C. Source of knowledge
D. Connection of computers within over long distances sharing resources. ☐
12. What is WWW?
A. World War Winners
B. World Wine Wines
C. World Wide Web
D. World Wide Word processing ☐
13. Which of the following are related to database programs?
A. Procedures, slide view and record
B. File, records, fields and type
C. Record and answers
D. Slides and data structures ☐
14. A facility in a presentation that determines how a slide is removed from the screen and another is presented is known as;
A. Animations
B. Rotation
C. Transition
D. Slide show ☐
15. The easiest way to create a presentation slide is by using a
A. Animation
B. Rotation
C. Transition
D. Slide show ☐
16. A link is;
A. Bridge
B. Path
C. Finger
D. Connections ☐
17. What is HTML in full?
A. Hyper transfer markup language
B. Hyper text material language
C. Help to maintain line
D. Hyper text markup language ☐
18. Artificial Intelligence is
A. The ability of computers to think and reason like humans
B. The ability of computers to do work
C. Man made brains
D. Making human brains ☐
19. As computer technology advances the physical size of computers;
A. Also advances
B. Reduces ☐

- C. Remain normal
 - D. Enlarges
20. Which of the following is a characteristic of fourth generation computers?
- A. Vacuum tubes
 - B. Transistors
 - C. Diodes
 - D. Integrated circuits.



SECTION B (60 MARKS)

Attempt any four questions

21. (a) Explain the following terms in relation to e-mail

(i) **Subject:** (01 mark)

.....

(ii) **To:** (01 mark)

.....

(iii) **CC:** (01 mark)

.....

(iv) **BCC:** (01 mark)

.....

(b) State **four** advantages of e-mail communication over ordinary mail. (04 marks)

.....

(c) (i) Distinguish between **Internet** and **e-mail** (04 marks)

.....

(ii) What do the following terms stand for in full
FTP (01 mark)

.....

TCP (01 mark)

.....

(iii) Explain briefly the FTP services (01 mark)

.....

22. (a) Identify **four** tasks one can do with a computer. (04 marks)

.....

.....

(b) List any **four** requirements needed to set up a local area network (LAN). (04 marks)

.....
.....

(c) State any **four** functions of an operating system. (04 marks)

.....
.....

(d) List any **three** programming languages (03 marks)

.....
.....

.....
23. (a) (i) Identify **three** precautions a web designer should consider when designing a web page. (04 marks)

.....
.....

(ii) Why is it not good to have a lot of graphics on a web page? (02 marks)

.....
.....

(b) List **four** qualities of a good web page. (04 marks)

.....
.....

(c) Give **three** advantages of Optic fibre cable over UTP (unshielded twisted pair) (06 marks)

.....
.....
.....

.....
24. (a) (i) What is **an application package**? (02 marks)

.....
.....

(ii) What is a **custom made package**? (02 marks)

.....
.....

(b) (i) Distinguish between **custom made** and **off shelf application packages**. (02 marks)

.....
.....
.....
(ii) State **three** advantages of off shelf packages. (03 marks)

.....
(iii) State **two** disadvantages of off shelf packages. (02 marks)

.....
(c) (i) What is **word processing**? (01 mark)

.....
(ii) List **three** word processing application packages. (03 marks)

.....
25. (a) (i) What is **a virus**? (01 mark)

.....
(ii) Outline the **four** common ways in which viruses are spread. (04 marks)

.....
(b) State **four** ways used to protect your computer against viruses. (04 marks)

.....
(c) Name any **three** virus scanning software. (03 marks)

.....
(ii) List any **three** symptoms of computers with a virus (03 marks)

.....
26. (a) State **four** major characteristics of the third generation computers. (04 marks)

(b) What do you understand by the following terms?

(i) **Command line interface** (02 marks)

.....

.....

(ii) **Graphical user interface** (02 marks)

.....

(iii) **Mechanical computers** (02 marks)

.....

(c) Give **two** examples of operating systems with the following

(i) **Command line interface** (02 marks)

.....

(ii) Give **two** examples of electro- mechanical computers. (02 marks)

.....

.....

SECTION C (20 MARKS)

Attempt any one question in this section

27. "A world with computer is no world at all". Discuss. (20 marks)

28. What are the merits and demerits of learning using Internet over using textbook learning? (20 marks)

29. Juma, a village boy exclaimed!, " Spread sheet programs are useless" As a computer student of computer studies convince him otherwise.

**SOLUTIONS TO UNEB 2003
SECTION A (20 MARKS)**

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

SECTION B

1. (a) Explain the following terms in relation to e-mail

(i) **Subject:** (01 mark)

The theme of the email message

(ii) **To:** (01 mark)

Carries the address of the recipient

(iii) **CC:** (01 mark)

Enables copies of the email message to be sent to the third party while acknowledging other recipients.

(iv) **BCC:** (01 mark)

Enables copies of the email message to be sent to the third party without acknowledging any other recipient.

(b) State **four** advantages of e-mail communication over ordinary mail. (04 marks)

- A message can be sent anywhere in the world at the price of a call, without having to leave your desk.
- Speed of delivery – the message will arrive in a few minutes and can be picked up the next time recipients look at their email.
- Ability to send to multiple recipients – the message can be sent simultaneously to a group of people.
- It is very easy to send a reply to an email as soon as it is received using a reply button.
- Large files such as spreadsheets and graphics can be sent as attachments.
- Low cost that is cheap.
- Can be used for advertising
- Assurance of whether the mail has been delivered
- No use of stamps
- It sends multimedia

(c) (i) Distinguish between **Internet** and **e-mail** (04 marks)

Internet is the worldwide collection of networks linked together while e-mail is a service that enables exchange of electronic messages over ICT devices.

(ii) What do the following terms stand for in full

FTP (01 mark)

File Transfer Protocol

TCP

(01 mark)

Transmission Control Protocol

(iii) Explain briefly the FTP services
(01 mark)

FTP enables large files transfer from a client computer to a remote and from a remote to a client computer.

2. (a) Identify **four** tasks one can do with a computer. (04 marks)

- E-mail communication
- Word processing
- Spreadsheet application
- Statistical analysis
- Entertainment

Others – saving, printing, storing, manipulating data and study guides.

(b) List any **four** requirements needed to set up a local area network (LAN). (04 marks)

- | | |
|-----------------------|-------------------------------------|
| • Hub or switch | • Network cards |
| • Communication media | • Network operating system software |
| • Computers | • Power to run the system |
| • Routers | |

(c) State any **four** functions of an operating system. (04 marks)

- Memory management
- Process management
- Device management
- File management
- It acts as an interface between the computer user and the computer
- Schedules jobs

(d) List any **three** programming languages (03 marks)

- Pascal
- BASIC
- Java
- FORTRAN
- C⁺

3. (a) (i) Identify **three** precautions a web designer should consider when designing a web page. (04 marks)

- Precious content
- Use minimal graphics
- Consumer requirements
- Copyright consideration
- Take into account versions of client browsers

- Avoid use of frames

(ii) Why is it not good to have a lot of graphics on a web page? (02 marks)

- It may take too long to load
- Client computer may support different color depths
- Takes a lot of space

(b) List **four** qualities of a good web page. (04 marks)

- it should load quickly
- should have feed backs
- should have a web page title and a brief summary about the page
- should have resources to other resources
- it should have date of last update
- should have good navigation buttons

(c) Give **three** advantages of Optic fibre cable over UTP (unshielded twisted pair) (06 marks)

- it is more resistant to external interfaces
- it transmits more data – supports large band width
- fast data transmission
- the signal is not attenuation that is signal strength remains constant.

4. (a) (i) What is **an application package**? (02 marks)

Application package is a user software program designed to accomplish a given task.

(ii) What is a **custom made package**? (02 marks)

It is an application program designed to meet clients' particular needs.

(b) (i) Distinguish between **custom made** and **off shelf application packages**. (02 marks)

A custom made is developed to meet particular needs for end users whereas off-shelves are of general nature and solve needs which are common in nature such as word processing and spreadsheets.

(ii) State **three** advantages of off shelf packages. (03 marks)

- Better documentation
- More standardized
- Larger number of users
- Fewer modifications
- Relatively inexpensive
- Readily available
- They can be customized
- Have less errors

(iii) State **two** disadvantages of off shelf packages. (02 marks)

- Lock into software vendors
- Inflexibility in the application package

(c) (i) What is **word processing**? (01 mark)

It is a process where text is manipulated to form documents and reports.

(ii) List **three** word processing application packages. (03 marks)

- Word perfect
- Word star
- Microsoft word
- Lotus Ami pro
- Word pad

5. (a) (i) What is **a virus**? (01 mark)

It is a program that copies its self onto files or programs and destroys software and the entire computer system.

(ii) Outline the **four** common ways in which viruses are spread. (04 marks)

- Opening an infected file
- Running an infected program
- Use of the infected diskette
- Through internet/e-mail
- Use of infected hard disks
- Through free ware/share ware
- Starting up a computer with an infected floppy disk.

(b) State **four** ways used to protect your computer against viruses. (04 marks)

- Discouraging use of external diskettes
- Installing Up to date antivirus program version
- Write protect the recovery disk before using it
- Backup the important files regularly

(c) (i) Name any **three** virus scanning software. (03 marks)

- Norton antivirus
- NOD32
- Thunder byte
- AVG
- F-secure
- Kaspersky

(ii) List any **three** symptoms of computers with a virus (03 marks)

- Computers may freeze
- Computers may be rude
- Corrupted files
- A computer may fail to solve or accessing a file to save
- Failure to do print jobs

6. (a) State **four** major characteristics of the third generation computers. (04 marks)

- They used integrated circuits
- Magnetic disk was developed during this period for storage purposes
- Computer memory expanded to 2 megabytes of RAM

- Speed accelerated to 5 million instruction per second.
- Use of parallel processing
- Development of microprocessors

(b) What do you understand by the following terms?

(i) **Command line interface** (02 marks)

With command line interface, a user types keywords or press special keys on the key board to enter data and instructions.

(ii) **Graphical user interface** (02 marks)

A graphical user interface allows a user to use menus and visual images such as Icons, buttons and other graphical objects to issue commands.

(iii) **Mechanical computers** (02 marks)

Mechanical computers are computers composed of mainly movable parts that is wheels and axles.

(c) Give **two** examples of operating systems with the following

(i) **Command line interface** (02 marks)

- UNIX
- LINUX
- Susie Linux
- Novel Netware

(ii) Give **two** examples of electro- mechanical computers. (02 marks)

- Leibniz calculator
- Analytical engine

Name..... Centre/Index No. /

Signature.....

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COMPUTER STUDIES

PAPER 1

©2017

2 hours 30 minutes

UGANDA NATIONAL EXAMINATION BOARD

Uganda Certificate of Education

COMPUTER STUDIES

Paper 1

2 hours 30 minutes

INSTRUCTIONS TO CANDIDATES:

Write your name, signature, centre and index number in the spaces above.

This paper consists of three sections **A**, **B**, and **C**.

Section **A** contains **20** compulsory objective-type questions. The correct alternative **A**, **B**, **C** or **D** against each question must be written in the box provided on the right hand side of each question.

Section **B** contains six structured questions. Attempt any four questions.

Answer to section **B** answers **must** be written in the space provided in the question paper.

Section **C** contains **three** essay questions. Answers to section **C must** be written in the answer booklets provided.

For Examiner's Use only

MCQ	Q21	Q22	Q23	Q24	Q25	Q26	Q27	Q28	Q29	Total

SECTION A (20 MARKS)

1. The following is a group of processors.
A. 80284, 80486, Pentium O, Pentium 1
B. 80286, 80486, Pentium 1, Pentium 2
C. 1286, 1486, Pentium O, Pentium II
D. 1286, 1486, 80286, 80487
☐
2. What is information technology?
A. It is a central processing system unit and monitor
B. It is the tangible components of a computer
C. It is all the types of equipment and programs used in processing
D. It is a combination of software and programs.
☐
3. Which of these does not fully represent computer classification by function?
A. Mainframe, micro, mini computers
B. Mini, personal, analog, micro computers
C. Digital, mainframe, microcomputers
D. Personal, analog, micro computers
☐
4. Which drive letter usually represents the hard drive?
A. A
B. B
C. C
☐

- D. D
5. Which one of these became used commonly in offices in the third generation of computers?
- A. Main frame
 - B. Anemometer
 - C. Super computer
 - D. Micro computer
6. What is the function of a modem? It;
- A. Blocks digital signals from leaving the computer
 - B. Converts digital signals to analog and vice versa
 - C. Converts analog signals to the atmosphere
 - D. Modulate digital signals to mechanical motions.
7. Back up refers to
- A. Storage of files on a secondary storage device
 - B. Taking in data for re-arrangement in order
 - C. Programs designed to check specific parts
 - D. Combining data from more than one file.
8. Which one of the following is not an operating system?
- A. Windows 3.1
 - B. DOS version 6.22
 - C. UNIX
 - D. Microsoft word
9. Formatting in word processing refers to;
- A. Preparing a new floppy diskette for use
 - B. Cleaning diskettes for storage
 - C. Enhancing the appearance of text in a document
 - D. Erasing all data on a diskette
10. The back space key
- A. Deletes any letter towards the right
 - B. Erases any character towards the left
 - C. Moves the cursor to left without deleting any character
 - D. Deletes a character at the cursor position
11. A work book is a:
- A. Publication
 - B. Data type entry
 - C. Range of cells
 - D. Collection of worksheets in a single file.
12. Which of the following is not a characteristic of spreadsheet?
- A. Worksheets cannot be renamed
 - B. Can enter text, number of formula
 - C. Calculations can be done on other cells
 - D. Variety of operations can be carried out on rows or columns
13. E-mail stands for
- A. Electrical mail
 - B. Surfing mail
 - C. Electronic mail

- D. Browsing the net
14. A computer network refers to;
- A. Information storage
 - B. Linking of computers for resource sharing
 - C. Connecting a computer system to a backup device
 - D. Sharing a computer by many people.
15. In database, a field is;
- A. The way information is displayed
 - B. A particular listing within a file
 - C. The entire collection of data
 - D. Each bit of information in a record
16. Databases perform the following functions
- A. Sorting of slides, retrieving and formatting
 - B. Formatting, organizing and retrieving pictures
 - C. Creating ,organizing and managing collection of related data
 - D. Entering data, saving, retrieving and drawing graphics
17. URL stands for:
- A. Uniform Resource Locator
 - B. Universal Resource Link
 - C. An e-mail
 - D. Web publishing software
18. Which of the following best distinguishes a WAN from a LAN?
- A. The number of computers connected
 - B. Distance between connected computers
 - C. Model of computers connected
 - D. Type of operating system used in the network
19. WWW refers to;
- A. Web world wide
 - B. World words web
 - C. Wild word web
 - D. World wide web
20. A problem that is likely to occur due to future advancement of computers is?
- A. Under development
 - B. Under population
 - C. Un employment
 - D. Insecurity

SECTION B (60 MARKS)
Attempt any four question

21. (a) Write the following abbreviations in full
- (i) **LSI** (01 mark)
 - (ii) **COBOL** (01 mark)
 - (iii) **BASIC** (01 mark)
- (b) Distinguish between **mainframe** and **mini computers**. (02)

mark)

.....
.....
(c) Name **two** instructions that computers use to do their work. (02 marks)

.....
.....
(d) List down any **five** components that are part of the system unit. (05 marks)

.....
(e) (i) What is a **CD-ROM**? (02 marks)

.....
(ii) Mention **one** advantage of a CD-ROM over a hard disk. (01 mark)

.....
22. (a) Mention any **three** safety security measures taken in a computer laboratory. (03 marks)

.....
.....
..... (b) What is a **system software** in a computer system? (02 marks)

.....
(c) Name **three** examples of system software. (03 marks)

.....
(d) Name any **four** functions of Utility programs. (04 marks)

.....
(e) What do you understand by the following terms?
(i) **Editing** (01 mark)

.....
(ii) **Saving** (01 mark)

.....
(iii) **Trouble shooting** (01 mark)

.....
.....
23. (a) What is a **computer spreadsheet**? (02 marks)
.....

.....
(b) Name **four** functions of a spreadsheet software. (04 marks)
.....
.....

.....
(c) List **three** data types of entries in spreadsheets. (03 marks)
.....
.....

.....
(d) Mention **three** types of graphs created in spreadsheets. (03 marks)
.....
.....

.....
(e) (i) What is a computer virus? (01 mark)
.....

.....
(ii) Mention **two** ways in which a computer can be infected by a virus. (02 marks)
.....

.....
24. (a) Write the words below in full?

(i) **FTP** (01 mark)
.....

(ii) **WAN** (01 mark)
.....

(b) State any **three** factors that affect communication speed on the Internet. (03 marks)
.....
.....

.....
(c) Distinguish between the **E-mail** and the **Internet**. (03 marks)
.....
.....

.....
(d) What is a **server**? (01 mark)
.....

.....
(e) List any **two** functions of a server? (02 marks)

.....
.....
(f) Give **four** differences between the hard disk and a floppy diskette. (04 marks)
.....
.....

.....
25. (a) What is a **database**? (01 mark)
.....

.....
(b) Distinguish between **Microsoft Access** and **Databases**. (03 marks)
.....
.....

.....
(c) List **four** examples of data which can be used to create a database. (04 marks)
.....
.....

.....
(d) Mention **three** examples of Database management software. (03 marks)
.....
.....

.....
(e) Give **four** advantages of electronic databases over manual databases. (04 marks)
.....
.....

.....
26. (a) Explain the following terms as used in presentation software
(i) Slide show (02 marks)
.....
.....

.....
(ii) Slide sorter (02 marks)
.....
.....

.....
(iii) Slide Layout (02 marks)
.....
.....

.....
(b) Explain the importance of presentations. (03 marks)
.....

.....

 (c) Describe one function of a slide master. (03 marks)

.....

 (d) Outline how you would create a transitional Loop. (03 marks)

SECTION C (20 MARKS)
Attempt any one question in this section

27. "Computers have destroyed our culture" what are your arguments for and against this statement?

(20 marks)

28. Outline what you expect the role of computers to be in future. (20 marks)

29. "Information Technology has done more good than harm to Education" Give your arguments in favour and against the statement. (20 marks)

SOLUTIONS TO UNEB 2004
SECTION A (20 MARKS)

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

SECTION B

21. (a) Write the following abbreviations in full

(i) **LSI** (01 mark)

Large Scale Integration

(ii) **COBOL** (01 mark)

Common Business Oriented Languages

(iii) **BASIC** (01 mark)

Beginners All purpose Symbolic Instruction Code

(b) Distinguish between **mainframe** and **mini computers**. (02 mark)

Main frame computers	Mini computers
Physically larger compared to mini computers	Physically smaller compared to main frame computers
Faster and more powerful in processing data	Slower and less powerful in processing data
Can be connected to between 500-1000 users	Can be connected to between 50-500 users
Used commercially and academically as Internet code	Used commercially for supermarkets and bigger organizations

(c) Name **two** instructions that computers use to do their work. (02 marks)

Data signals

Control

(d) List down any **five** components that are part of the system unit. (05 marks)

- Power supply
- Mother board
- CPU or processor chip
- RAM chips
- ROM chips
- Expansion slots
- Bus lines
- Ports
- PC (PCMCIA) slots and cards

(e) (i) What is a **CD-ROM**? (02 marks)

CD-ROM which stands for compact disk read only memory is an optical disk format that is used to hold pre-recorded text, graphics and sound.

(ii) Mention **one** advantage of a CD-ROM over a hard disk. (01 mark)

CD-ROMs cannot be written or erased by users (store permanently)

22. (a) Mention any **three** safety security measures taken in a computer laboratory.

(03 marks)

- Dust free cover computer ventilators

- Switch on your computer hardware system starting from the wall socket
- Avoid abrupt switching off and on the computer system
- Avoid liquid substances like water and juices

(b) What is a **system software** in a computer system? (02 marks)

System software is a set of programs software which manages the operation of the computer itself.

(c) Name **three** examples of system software. (03 marks)

- Operating system (DOS, Windows, Unix, Linux)
- Programming languages (BASIC, FORTRAN, COBOL)
- System Utilities (Anti-viruses)

(d) Name any **four** functions of Utility programs. (04 marks)

- Anti-virus utility- virus scanners scan for computer viruses among files and folders
- Archive utilities is an output stream or a single file when provided with a directory or a set of files.
- File compression utilities – out put a shorter stream or a smaller file when provided with a stream or file
- Application launchers – provide a convenient access point for application software.

(e) What do you understand by the following terms?

(i) **Editing** (01 mark)

Correcting mistakes – formatting improving on the appearance

(ii) **Saving** (01 mark)

Transferring of data and information from memory to secondary storage

(iii) **Trouble shooting** (01 mark)

Is the correcting and rectifying errors and mistakes

23. (a) What is a **computer spreadsheet**? (02 marks)

It is an application package used for manipulating of figures

(b) Name **four** functions of a spreadsheet software. (04 marks)

- Data sorting – the ability to create, edit, saves and retrieves work sheets
- Charting facility to draw graphs data sources
- Templates and built in functions and formulas for adding
- Data formatting, summarizing, ability to perform “what if analysis”

(c) List **three** data types of entries in spreadsheets. (03 marks)

- Labels
- Values
- Functions

(d) Mention **three** types of graphs created in spreadsheets. (03 marks)

- | | | |
|--------------|--------------|-----------------|
| • Line graph | • XY scatter | • Radar |
| • Pie charts | • Area | • Surface |
| • Bar graphs | • Doughnut | • 3D- pie chart |

- 3D- bar graph
- Bubble
- Stock
- Cylinders
- Cones

(e) (i) What is a computer virus? (01 mark)

A harmful program which when runs on a computer may alter the information, files and damage data stored in it.

(ii) Mention **two** ways in which a computer can be infected by a virus. (02 marks)

- Receiving e-mails
- Internet downloads
- Web pages
- Software on CD-ROMs or floppy diskettes

24. (a) Write the words below in full?

(i) **FTP** (01 mark)

File transfer protocol

(ii) **WAN** (01 mark)

Wide Area Network

(b) State any **three** factors that affect communication speed on the Internet. (03 marks)

- Transmission (frequency and band width)
- Line configuration (point to point and multi point)
- Serial and parallel transmission
- Direction of transmission flow (simplex, half duplex and full duplex)
- Protocols (rules of transmission medium)
- Type of processor

(c) Distinguish between the **E-mail** and the **Internet**. (03 marks)

E-mail is the transfer of electronic files from one computer to another on the Internet and Internet is global collection of networks linked together.

(d) What is a **server**? (01 mark)

A server is the central or host computer that manages the resources on a network.

(e) List any **two** functions of a server? (02 marks)

- It provides a centralized storage area for programs, data and information
- A dedicated server is a server that performs a specific task

(g) Give **four** differences between the hard disk and a floppy diskette. (04 marks)

Hard disk	Floppy
Large storage space (32 GB and +)	Little storage capacity (1.44MB)
Physically large in size	Physically small in size
Normally fixed inside the system unit	Normally removed
It is expensive	It is cheap

25. (a) What is a **database**? (01 mark)

A database is a collection of data organized in a way that allows access, retrieval and use of the data.

(b) Distinguish between **Microsoft Access** and **Databases**. (03 marks)

A database is a collection of data organized in a way that allows access, retrieval and use of the data while Microsoft Access is one of popular database software.

(c) List **four** examples of data which can be used to create a database. (04 marks)

- Flight information
- Phone inquiry system
- Database systems in the public libraries and Banks

(d) Mention **three** examples of Database management software. (03 marks)

- Inventory systems
- School management systems
- Library system for keeping books
- Database for car and number plates
- Database for insurance companies

(e) Give **four** advantages of electronic databases over manual databases. (04 marks)

- Reduction of data redundancy – storing most of data in one place means less duplication and less required space
- Enhancement of data integrity because data are centralized fewer updating errors occur and greater accuracy can be maintained.
- Ensured data independence – data are entered, stored, application programs.
- Facilities of data sharing and integration – database systems offer users the ability to combine or to cross-reference data in many different ways.

26. (a) Explain the following terms as used in presentation software

(i) Slide show (02 marks)

Slide show – the display of slides in a sequence moving from one slide to another.

(ii) Slide sorter (02 marks)

Slide sorter – this is a display where slides appear in a miniature form so that they can easily re-arrange them or manipulate.

(iii) Slide Layout (02 marks)

Refers to single slide format and design.

(b) Explain the importance of presentations. (03 marks)

- Used for visual aid communication
- Used for summarizing content for presentation
- Used for advertising

(c) Describe one function of a slide master. (03 marks)

This stores all default attributes that you wish to apply to slides including text formatting and positioning, background and standard graphic such as your company logo.

(d) Outline how you would create a transitional Loop. (03 marks)

Slides made – slide show – menu – transition submenu – transition.
Windows –select timing – select condition – loop until escape key is pressed.

Name..... Centre/Index No. /

Signature.....

840/1

COMPUTER STUDIES

PAPER 1

Nov. /Dec. 2005

2 hours 30 minutes

UGANDA NATIONAL EXAMINATION BOARD

Uganda Certificate of Education

COMPUTER STUDIES

Paper 1

2 hours 30 minutes

INSTRUCTIONS TO CANDIDATES:

Write your name, signature, centre and index number in the spaces above.

*This paper consists of three sections **A**, **B**, and **C**.*

*Section **A** contains **20** compulsory objective-type questions. The correct alternative **A**, **B**, **C** or **D** against each question must be written in the box provided on the right hand side of each question.*

*Section **B** contains six structured questions. Attempt any four questions.*

*Answer to section **B** answers **must** be written in the space provided in the question paper.*

*Section **C** contains **three** essay questions. Answers to section **C must** be written*

in the answer booklets provided.

For Examiner's Use only

MCQ	Q21	Q22	Q23	Q24	Q25	Q26	Q27	Q28	Q29	Total

SECTION A (20 MARKS)

1. All these are data storage devices except:
A. Floppy diskette
B. Hard drive.
C. Control unit.
D. Zip drive. ☐
2. Which one of these is odd?
A. Microsoft word
B. Microsoft Access
C. Epi Info
D. UNIX ☐
3. A is a primary database structure.
A. Table
B. Report
C. Form
D. Query ☐
4. The operating system is not directly involved in one of these tasks.
A. File management
B. Formatting a diskette
C. Scheduling of print jobs
D. Displaying a web page ☐
5. A computer with a specification will load programs faster.
A. 900MHz
B. 1 GHz
C. 700MHz
D. 600MHz ☐
6. is a popular 7-bit encoding system.
A. ASCII
B. EBCDIC
C. Hexa-decimal
D. Binary ☐
7. This component of the Central Processing Unit (CPU) carries out all the logic and mathematical operations.

- A. ALU
B. System clock
C. Register
D. Control unit
8. is a group of commands available to the CPU which determines the basic computer operations that can be performed.
- A. Instruction set
B. Operating system
C. Rom Bios
D. Hard disk
9. Which of the following is not a computer peripheral?
- A. Monitor
B. Printer
C. CPU
D. Keyboard
10. A is not an example of an output device.
- A. Printer
B. Plotter
C. Monitor
D. Keyboard
11. Which one of the following is not a programming tool?
- A. Debugger
B. An interpreter
C. Notepad
D. A compiler
12. Okello intends to draw up an inventory. Which of the following is the most suitable software to use?
- A. Ms-Word
B. C++
C. Ms-Excel
D. Pascal
13. A makes it easy to find your way round the internet.
- A. Network browser
B. Microsoft word
C. Compiler
D. Digital camera
14. Slides as an output are displayed using software
- A. A word processing
B. An internet explorer
C. A spreadsheets
D. A presentation
15. Which of the following is not a storage device?
- A. Disk drive A
B. Disk drive B
C. Motherboard
- ☐
☐
☐
☐
☐
☐
☐
☐
☐

- D. CD-ROM
16. The process of starting a computer is referred to as
- A. Surfing
 - B. Booting
 - C. Blocking
 - D. Clicking
17. The output displayed on the screen is termed as
- A. Photocopy.
 - B. Softcopy
 - C. Master-copy
 - D. Hard-copy.
18. One of these is a pointing device used to manipulate on screen objects.
- A. CD-ROM
 - B. Digital camera
 - C. Scanner
 - D. Mouse
19. Which of the following devices can be used to convert images or text on paper documents into electronic format that can display, store and print?
- A. Track ball
 - B. Scanner
 - C. Monitor
 - D. CD-Rom device
20. The option on the menu bar which enables one to name a document and store it on a storage device using another name is
- A. Save
 - B. Save as.
 - C. Edit
 - D. New

SECTION B (60 MARKS)
Attempt any four question

21. (a) Write the following abbreviations in full.
- (i) **GUI** (01 mark)
.....
 - (ii) **ASCII** (01 mark)
.....
 - (iii) **EBCDIC** (01 mark)
.....
 - (iv) **URL** (01 mark)
.....
 - (b) Explain the following Internet services:
 - (i) **TELNET** (02 marks)
.....
 - (ii) **WWW** (02 marks)
.....

.....
(iii) **E-mail** (02 marks)
.....

.....
(c) What do you understand by the following terms?
(i) **Computer-file** (02 marks)
.....

.....
(ii) **File name extension** (02 marks)
.....
.....

(d) Specify the file types associated with the following file extensions: .
(i) **.exe** (01 mark)
.....

(ii) **.txt** (01 mark)
.....

(iii) **.doc** (01 mark)
.....

22. (a) Why is the binary number system used for computers? (01 mark)
.....

(b) Convert the
(i) Binary number **10101010** to its decimal equivalent. (02 marks)
.....

(ii) Decimal number **121** to its binary equivalent. (02 marks)
.....

.....
(c)(i) Explain the meaning of the term **control unit** as used in a computer system. (02 marks)
.....

.....
(ii) State any **two** functions of the control unit. (02 marks)
.....

.....
(iii) Define a **byte** (01 mark)
.....

.....
(d) Distinguish between **ROM** and **RAM** (04 marks)
.....
.....

.....
.....
23. (a) (i) Define the term **band width**. (02 marks)

.....
.....
(ii) List **three** communication media. (03 marks)

.....
.....
(b) Below are specifications for two different types of computers A and B.

Specification	Computer A	Computer B
RAM	64 MB	128MB
HARD DISK	700MB	20GB
SPEED	800MHz	1GHz
COMPUTER WORD	32-bit	64-bit
NETWORK CARD	NO	YES
VIDEO CARD	YES	YES

Study them and answer the questions that follow:

(b) Which computer is faster in processing data?

.....
(ii) How many bytes can computer A handle at the same time?

.....
(iv) Which computer is more likely to be connected to a LAN and why?

.....
(c) Define the following terms:

(i) **Software** (02 marks)

.....
(ii) **Hardware** (02 marks)

.....
(iii) **Application program** (02 marks)

.....
(d) Distinguish between **down loading** and **uploading** a computer. (04 marks)

.....
24. (a) (i) Define the term computer Virus? (02 marks)

.....
(ii) Identify any **three** possible symptoms of computer viruses. (03 marks)

.....
.....
.....
(b) State **two** ways in which one can guard a computer system against viruses.
(02 marks)

.....
.....
(c) (i) What do you understand by the term **screen saver** as applied to computers?

.....
.....
(ii) State any **two** applications of a screen saver program. (02 marks)

.....
.....
(iii) State **two** precautions that should be taken when cleaning a screen display area. (02 marks)

.....
.....
(d) State any **two** steps that must be followed to safely shut down a computer from the Microsoft word file.
(02 marks)

.....
.....
25. (a) Define the following terms:

(i) **Warm booting** (02 marks)

.....
.....
(ii) **Monitor** (02 marks)

.....
.....
(iii) **Folder** (02 marks)

.....
.....
.....(iv) **Artificial intelligence**
(02 marks)

.....
.....
(b) (i) List any **two** ways of starting an application in windows. (02 marks)

.....
.....
(ii) What is the Windows utility used to view contents of a floppy, hard and network drives? (02 marks)

(iii) What must be done to floppy disks before they are used? (02 marks)

.....
.....

(iv) What do we call the basic applications that are built into windows that allow us to perform tasks like drawing or text editing? (02 marks)

.....
.....

(c)(i) **CD-ROM** stands for ? (01 mark)

.....
.....

(ii) State **two** ways in which a CD-ROM can be useful in education. (02 marks)

.....
.....

(iii) State **three** precautions for correct handling of diskettes. (03 marks)

.....
.....
.....

26. (a) write the following abbreviations in full.

(i) **CAD** (01 mark)

.....
.....

(ii) **CPU** (01 mark)

.....
.....

(iii) **I.C** (01 mark)

.....
.....

(iv) **IP** (01 mark)

.....
.....

(b) Define the following terms:

(i) **Hard copy** (01 mark)

.....
.....

(ii) **Soft copy** (01 mark)

.....
.....

(iii) **Bug** (01 mark)

.....
.....

(c) Explain the meaning of the following:

(i) **HTTP** (02 marks)

.....
.....
.....

(ii)HTML

(02 marks)

.....
.....
.....

(d) Fill in the gaps in the table below.

Task	Type of software that can be used.
(i)	Adobe Photoshop, paintbrush, Ms-word
(ii) present a lecture	
(iii)	MS-Excel
(iv) Reading information on the internet	

SECTION C (20 MARKS)

Attempt any one question

27. Explain why a school should have a web site. (20 marks)

28. (a) Outline the different forms of secondary storage. (10 marks)

(b) Describe the characteristics of each of the above forms of secondary storage.

(10 marks)

29. Give your arguments in favour and against the impact of computers in our society today. (20 marks)

SOLUTIONS TO UNEB 2005

SECTION A (20 MARKS)

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

SECTION B

21. (a) Write the following abbreviations in full.

(i) **GUI** (01 mark)

Graphical User Interface

(ii) **ASCII** (01 mark)

American Standard Code Decimal Interchange Code

(iii) **EBCDIC** (01 mark)

Extended Binary Coded Decimal Interchange Code

(iv) **URL** (01 mark)

Uniform Resource Locator

(b) Explain the following Internet services:

(i) **TELNET** (02 marks)

TELNET – a terminal emulation protocol that allows a user to log on to a remote device.

(ii) **WWW** (02 marks)

WWW (worldwide web) is a system of Internet servers that supports the Hypertext markup language documents.

(iii) **E-mail** (02 marks)

E-mail (Electronic mail) – the transmission of messages to one or more recipients over a network.

(c) What do you understand by the following terms?

(i) **Computer-file** (02 marks)

Is a document containing tables or characters

(ii) **File name extension** (02 marks)

Defines what type of file and may also define from which application it belongs.

(d) Specify the file types associated with the following file extensions: .

(v) **.exe** (01 mark)

Executive file

(vi) **.txt** (01 mark)

Text file

(vii) **.doc** (01 mark)

document

22. (a) Why is the binary number system used for computers? (01 mark)

It is because the computer (CPU) understands only binary for every character is represented in binary form in the ASCII table.

(b) Convert the

(i) Binary number **10101010** to its decimal equivalent. (02 marks)

$1^7 0^6 1^5 0^4 1^3 0^2 1^1 0^0$

$(1 \times 2^7) + (0 \times 2^6) + (1 \times 2^5) + (0 \times 2^4) + (1 \times 2^3) + (0 \times 2^2) + (1 \times 2^1) + (0 \times 2^0)$

$(1 \times 128) + (0 \times 64) + (1 \times 32) + (0 \times 16) + (1 \times 8) + (0 \times 4) + (1 \times 2) + (0 \times 0)$

$128 + 0 + 32 + 0 + 8 + 0 + 2 + 0$

$128 + 32 + 8 + 2$

170

(ii) Decimal number **121** to its binary equivalent. (02 marks)

121

2	121	1
---	-----	---

2	60	0
2	30	0
2	15	1
2	7	1
2	3	1
	1	

1 1 1 1 0 0 1_{binary}

(c)(i) Explain the meaning of the term **control unit** as used in a computer system. (02 marks)

The control unit extracts the instructions from the main memory, decodes them and executes them.

(ii) State any **two** functions of the control unit. (02 marks)

Decodes instruction (is the process of translating the instructions into commands the computer can execute)

Executes instructions (is the process of carrying out the command)

(iii) Define a **byte** (01 mark)

A byte is eight bits grouped together

(d) Distinguish between **ROM** and **RAM** (04 marks)

RAM	ROM
RAM is volatile	ROM is non volatile
RAM is read and write	ROM is read only
RAM is temporary	ROM is permanent
RAM can be increased	ROM not normally increased

23. (a) (i) Define the term **band width**. (02 marks)

Band width is the rate of speed of data through a channel and is expressed in bits per second

(ii) List **three** communication media. (03 marks)

- Wireless base communication media
- Wire base communication media
- Satellite communication media

(b) Below are specifications for two different types of computers A and B.

Specification	Computer A	Computer B
RAM	64 MB	128MB
HARD DISK	700MB	20GB
SPEED	800MHz	1GHz
COMPUTER WORD	32-bit	64-bit
NETWORK CARD	NO	YES
VIDEO CARD	YES	YES

Study them and answer the questions that follow:

(i) Which computer is faster in processing data?

Computer B (1GHZ)

(ii) How many bytes can computer A handle at the same time?

8bits = 1byte therefore it is

32bits = 4bytes

(iii) Which computer is more likely to be connected to a LAN and why?

Computer B because it has a network card

(c) Define the following terms:

(i) **Software** (02 marks)

Software is a program consisting of step by step instructions that tell the computer how to perform a task.

(ii)**Hardware** (02 marks)

Hardware is the electric, electronic and mechanical components that make up a computer system.

(iii) **Application program** (02 marks)

Application program is a software that can perform useful work on general purpose tasks.

(d)Distinguish between **down loading** and **uploading** a computer. (04 marks)

Downloading means that you retrieve files from another computer and store them in your computer on a network. And uploading means that you send files from your computer to another computer on a network.

24. (a) (i)Define the term computer Virus? (02 marks)

Computer virus is a deviant program that affects or attacks computer systems and destroys or corrupts data.

(ii)Identify any **three** possible symptoms of computer viruses. (03 marks)

- Less memory available than usual
- Unfamiliar graphics
- Programs taking longer than usual to load
- Disk access seeming excessive for simple tasks
- Usually error message occurring more frequently

(b) State **two** ways in which one can guard a computer system against viruses. (02 marks)

- Install an anti-virus utility and update its virus definitions frequently
- Never start up a computer with an infected floppy disk in the floppy drive
- Scan all floppy disks and files for possible virus infection before opening them

(c) (i) What do you understand by the term **screen saver** as applied to computers?

Screen saver is a utility that supposedly prevents a monitor display from being etched by an unchanging image.

It is a utility that causes the monitor's screen to display a moving image or blank screen if no key board or mouse activity occurs for a specified time period.

(ii) State any **two** applications of a screen saver program. (02 marks)

- Entertainment

(iii) State **two** precautions that should be taken when cleaning a screen display area. (02 marks)

- Never use a watery (wet cloth) to clean your screen
- Never put your screen near magnetic media
- Always ask a technician for help

(d) State any **two** steps that must be followed to safely shut down a computer from the Microsoft word file. (02 marks)

- Click on file save as the document
- Click on the close
- Click on file exit
- Click on start up, shutdown to shutdown the computer

25. (a) Define the following terms:

(i) **Warm booting** (02 marks)

Warm booting is the process of restarting a computer that is powered on.

(ii) **Monitor** (02 marks)

Monitor is an output device that show programming instructions and data as they are being input and information after it is processed.

(iii) **Folder** (02 marks)

Folder is where files are kept and sub folders.

(iv) **Artificial intelligence** (02 marks)

Artificial intelligence is a group of related technologies that attempt to develop machines to emulate human like qualities such as learning, reasoning, communicating, seeing and hearing for example robots, expert systems.

(b) (i) List any **two** ways of starting an application in windows. (02 marks)

- You can start by clicking on the icon program on the desktop
- You can start by clicking on the start menu
- From programs choose the application (Ms Excel, Ms Power point)

(ii) What is the Windows utility used to view contents of a floppy, hard and network drives? (02 marks)

- Clicking on the desktop
- Clicking on start open, program the applications

(iii) What must be done to floppy disks before they are used? (02 marks)

Before they are used they are supposed to be formatted.

(iv) What do we call the basic applications that are built into windows that allow us to perform tasks like drawing or text editing? (02 marks)

- Application software – editors
- Paint brush
- Word pad

(c)(i) **CD-ROM** stands for ? (01 mark)

CD-ROM stands for Compact Disk – Read Only Memory

(ii) State **two** ways in which a CD-ROM can be useful in education. (02 marks)

- Storage purposes
- Educative CD

(iii) State **three** precautions for correct handling of diskettes. (03 marks)

- Do not touch disk surface
- Do not bend them
- Do not stick them with sharp objects
- Do not staple a disk to a file folder
- Do not spill a coke or any liquid to it
- Keep diskettes out of moisture
- Keep diskettes from magnetic fields

26. (a) write the following abbreviations in full.

(v) **CAD** (01 mark)

Computer Aided Design

(vi) **CPU** (01 mark)

Central Processing Unit

(vii) **I.C** (01 mark)

Integrated circuits

(viii) **IP** (01 mark)

Internet Protocol

(b) Define the following terms:

(iv) **Hard copy** (01 mark)

Hard copy refers to a printed output

(v) **Soft copy** (01 mark)

Softcopy refers to data that is shown on a display screen or is in audio or voice

(vi) **Bug** (01 mark)

Bug is an error in a program that causes it not to work.

(c) Explain the meaning of the following:

(i) **HTTP** (02 marks)

HTTP (Hyper Text Transfer Protocol) is a protocol that is commonly used in exchanging files such as text, graphics, videos on the internet.

(ii) **HTML** (02 marks)

HTML (Hyper Text Markup Language) is a markup language that describes how a web page should be formatted and displayed in a web browser.

(d) Fill in the gaps in the table below.

Task	Type of software that can be used.
(i) Produce a document	Adobe Photoshop, paintbrush, Ms-word
(ii) present a lecture	Presentation software (power point
(iii) do financial accounting calculations	MS-Excel
(iv) Reading information on the internet	Web browsers like windows explorer

Signature.....

COMPUTER STUDIES

Nov. /Dec. 2006

UGANDA NATIONAL EXAMINATION BOARD

COMPUTER STUDIES

2 hours 30 minutes

Write your name, signature, centre and index number in the spaces above.

This paper consists of three sections A, B, and C.

Section A contains 20 compulsory objective-type questions. The correct alternative A, B, C or D against each question must be written in the box provided on the right hand side of each question.

Section B contains six structured questions. Attempt any four questions.

Answer to section **B** answers **must** be written in the space provided in the question paper.

Section **C** contains **three** essay questions. Answers to section **C** **must** be written in the answer booklets provided.

[illegible]

SECTION A (20 MARKS)

1. The difference between hardware and software is that hardware is
 - A. Tangible while software is intangible
 - B. Metallic while software is plastic.
 - C. Permanent while software is temporary.
 - D. Reliable while software is unreliable.☐
2. Which of these components is the brain of a computer system?
 - A. Main memory
 - B. The secondary memory
 - C. The processor chip
 - D. The power supply☐
3. Which of the following are the two general types of programs?
 - A. Entertainment and productivity.
 - B. Microsoft and IBM.
 - C. Word processors and Databases.
 - D. System Software and Application Software.☐
4. A computer performs all the following functions expect
 - A. Storage.
 - B. Processing
 - C. Output
 - D. Thinking.☐
5. Which of the following is used to give commands to the computer?
 - A. Input devices
 - B. Storage devices
 - C. Output devices
 - D. Processing devices☐
6. A communication device enables a computer to connect to a computer
 - A. System unit
 - B. Software
 - C. Application
 - D. Network.☐
7. A file is
 - A. A section of the main memory used to store data
 - B. A part of a program used to describe what the program does.
 - C. Another name for floppy disk
 - D. A collection of information that has been given a name and stored in secondary memory.☐
8. An anti-virus is an example of
 - A. A user interface
 - B. An operating system
 - C. Application software.
 - D. A utility program.☐
9. A grid in a spreadsheet program where entries are made consists of
 - A. rows, columns and diagonals

- B. columns and rows ☐
- C. rows and diagonals
- D. columns and diagonals.
10. What kind of hardware would you use to put photos of your family into a file?
- A. Printer
- B. DVD player ☐
- C. Scanner
- D. Power point
11. In a database, a collection of fields that contain data about a single activity or transaction is referred to as a
- A. File
- B. Table
- C. Record ☐
- D. primary key
12. What type of object is used to find answers to questions about the data in a database
- A. Macro
- B. Query
- C. Module ☐
- D. Form
13. Which of the following is not an example of a programming language ?
- A. COBOL
- B. Visual Basic ☐
- C. Lotus
- D. Java
14. Kapere was doing his computer final examination when his computers hang up. He lost everything he had been typing because he forgot to
- A. copy
- B. save ☐
- C. cut
- D. paste
15. The purpose of a screen saver is to
- A. help prevent screen burn out
- B. brighten up the screen
- C. test the capability of the monitor to display various graphics. ☐
- D. entertain the computer user.
16. HTTP stands for
- A. hyper text transport protocol
- B. hyper text transport platform
- C. hyper text transfer platform ☐
- D. hyper text transfer protocol.
17. Which of the following usually provides internet e-mail accounts and addresses ?
- A. ISP
- B. Internet café
- C. WWW ☐

- D. TCP/IP
18. Which of the following is the most promising use of a computer ?
- A. Error-free software
 - B. On-line education
 - C. Voice recognition software
 - D. Downloading music.
19. Which type of software is used to request a specific resource from the server ?
- A. Server software
 - B. Client software
 - C. System software
 - D. Messaging software.
20. Which of the following is credited using presentation software ?
- A. A directory
 - B. A file structure .
 - C. An organization chart.
 - D. An e-mail message.

SECTION B (60 MARKS)
Attempt any four questions

21. (a) Give any **three** safety rules that should be followed in a computer laboratory.
 (03 marks)

.....

(b) Define the following terms as used in computer:

- (i) **Directory** (01 mark)

.....

- (ii) **Modem** (01 mark)

.....

- (c) (i) Name any **five** peripheral devices of a computer. (05 marks)

.....

- (ii) Give the function of each device named in (c)(i) above. (05 marks)

.....

22. (a) Explain the following terms as used in computer studies:

- (i) **System software** (02 marks)

.....
.....
(ii) **Application software** (02 marks)
.....
.....

.....
(iii) **Utility programs** (02 marks)
.....
.....

.....
(b) Outline **four** functions of an operating system software. (04 marks)
.....
.....
.....

.....
(c) List any **five** operating systems that you know. (05 marks)
.....
.....
.....
.....

.....
23. (a) Write the following in full in relation to computer.
(i) **RAM** (01 mark)
.....

(ii) **ROM** (01 mark)
.....

(iii) **EPROM** (01 marks)
.....

.....
(b)Distinguish between **primary storage** and **secondary storage** devices, giving an example of each. (03 marks)
.....
.....

.....
(c) (i) Name **three** major parts of the CPU. (03 marks)
.....
.....

.....
(ii)Explain the function of each part in (c)(i) above. (06 marks)
.....
.....
.....
.....

.....
24. (a) Explain the following
(i) **Telnet** (02 marks)

.....
(ii) **FTP** (02 marks)

.....
(iii) **TCP/IP** (02 marks)

.....
(iv) **Intranet** (02 marks)

.....
(b) What is a **web browser**? Give **one** example of a web browser. (03 marks)

.....
(c) State **four** major components of an e-mail message. (04 marks)

.....
25. (a) Define the following terms in relation to database.
(i) **File** (01 mark)

.....
(ii) **Record** (01 mark)

.....
(iii) **Field** (01 mark)

.....
(b) Name **three** functions of databases: (03 marks)

.....
(c) Outline **four** steps taken to create a simple database. (03 marks)

.....
.....
.....
(d)With an illustration, explain how a shopkeeper can use spreadsheets to run the business. (05 marks)

.....
.....
.....
.....Distinguish between the following as used in computers:

(i) **data and information.** (02 marks)

.....
(ii) **domain name and IP address.** (02 marks)

.....
(b) State **two** undesirable behaviors involving internet (02 marks)

.....
(c)(i) How does the use of the mouse make Windows easier compared to the use of the key board alone ? (02 marks)

.....
(ii)State any **two** major problems that often affect the proper functioning of the mouse. (02 marks)

.....
(iii)Suggest any **two** ways the mouse can be protected from the problems in (c)(ii) above. (02 marks)

.....
SECTION C (20 MARKS)
Attempt any one question

26. The Head teacher of your school wishes to buy computers for the school. As a student of computer studies, what type of computers would you advise the Head Teacher to buy and for what benefits are they to your school?

27. Suggest reasons why there is an increase in the use of computers in most organizations in Uganda today.
28. Total data security is not possible today. 'Outline the areas where this has been achieved and challenged'.

SOLUTIONS TO UNEB 2006
SECTION A (20 MARKS)

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

SECTION B

21. (a) Give any **three** safety rules that should be followed in a computer laboratory.

(03 marks)

- Avoid dust
- Proper shutdown of a computer
- Temperature settings
- Proper aeration
- Avoid use of liquids

- (b) Define the following terms as used in computer:

(i) **Directory**

(01 mark)

Directory is a collection of files on a given storage media

(ii) **Modem**

(01 mark)

Modem is a communication device that converts between analog and digital signals and digital to analog signals.

- (c) (i) Name any **five** peripheral devices of a computer.

(05 marks)

- Key board
- Mouse
- Printer
- Microphone
- Joy stick
- Light pen
- Track ball

- (ii) Give the function of each device named in (c)(i) above.

(05 marks)

- Key board for inputting data/Information/Instructions
- Mouse for controlling the cursor on the screen
- Printer for producing hard copies
- Track ball for inputting information as a pointing device
- Microphone are the components of a computer that also allow one to input data inform of voice recognitions.

22. (a) Explain the following terms as used in computer studies:

(i) **System software** (02 marks)

System software consists of programs that control the operations of the computer and its devices.

(ii) **Application software** (02 marks)

Application software refers to programs that perform specific tasks for users.

(iii) **Utility programs** (02 marks)

Utility program is a type of system software that performs a specific task usually related to managing a computer, its devices or its programs.

(b) Outline **four** functions of an operating system software. (04 marks)

- Memory management
- Spooling print jobs
- Configuring devices
- Monitoring system performance
- Administering security
- File management
- User interface
- Booting
- Processing managing.

(c) List any **five** operating systems that you know. (05 marks)

- DOS
- Windows 95
- Windows 3.x
- Windows 98
- Windows CE
- Windows XP home

23. (a) Write the following in full in relation to computer.

(i) **RAM** (01 mark)

Random Access Memory

(ii) **ROM** (01 mark)

Read Only Memory

(iii) **EPROM** (01 marks)

Erasable Programmable Read Only Memory

(b) Distinguish between **primary storage** and **secondary storage** devices, giving an example of each. (03 marks)

- Primary storage memory is fast because it is accessed electronically and no mechanical components are involved and secondary storage is non volatile and contents stored are relatively more permanent.
- Memory is expensive and its storage size on a computer system is usually limited and secondary storage is cheap and almost unlimited storage space.

(c) (i) Name **three** major parts of the CPU. (03 marks)

- memory
- ALU
- Control Unit

(ii) Explain the function of each part in (c)(i) above. (06 marks)

- Memory – it refers to working storage that holds data, instructions for processing and holds data after it has been processed.
- ALU – it performs the execution part of the machine cycle.
- Control unit – it directs and co-ordinates most of the operations in the computer.

24. (a) Explain the following

(i) **Telnet** (02 marks)

Telnet – a terminal emulation protocol that allows a user to log onto a remote device. (computer)

(ii) **FTP** (02 marks)

FTP – File Transfer Protocol is an Internet standard to upload and download files.

(iii) **TCP/IP** (02 marks)

Transmission control protocol/Internet protocol is a suite of protocols that governs the way data is transmitted across networks.

(iv) **Intranet** (02 marks)

Intranet is a small version of Internet used within an organization.

(b) What is a **web browser**? Give **one** example of a web browser. (03 marks)

Web browser is a software program that allows a user to access and view web pages.

Examples are:-

- Internet explorer
- Netscape navigator
- Fire fox
- Opera mini

(c) State **four** major components of an e-mail message. (04 marks)

- Address of recipient
- Subject Title
- Body
- Senders name and address (signature)
- CC. carbon copy
- BCC. Blind carbon copy

25. (a) Define the following terms in relation to database.

(i) **File** (01 mark)

File is a collection of many records

(ii) **Record** (01 mark)

Record is a collection of related data items/related fields

(iii) **Field** (01 mark)

Field contains specific piece of information within a record or a unit of data consisting of one or more characters.

(b) Name **three** functions of databases: (03 marks)

- Data storage
- Data manipulation

- Data retrieval
- Data sorting
- Enhanced data integrity
- Application data independence
- Improved security
- Improved flexibility of information systems

(c)0

outline **four** steps taken to create a simple database.

(03 marks)

- Planning
- Design
- File structure creation
- Defining the fields

(d)With an illustration, explain how a shopkeeper can use spreadsheets to run the business. (05 marks)

The shopkeeper creates a spreadsheet to show items stocked, cost price, selling price, profits earned or expected.

Can create an income/expenditure spreadsheet to help calculate profit/loss of the business.

ITEMS	Stock	Cost price	Selling price	Total cost	Total sale	Profit
Sugar						
Salt						
Oil						
Beans						

Distinguish between the following as used in computers:

(i) **data and information.** (02 marks)

Data consists of raw facts and figures that figures that are processed into information and information is summarized data or otherwise manipulated (processed) data.

(ii) **Domain name and IP address.** (02 marks)

Domain name – it is the text version of an IP address and IP address Internet protocol address a numeric unique identifier for a computer on the Internet.

(b) State **two** undesirable behaviors involving internet (02 marks)

- Spam (containing unsolicited messages)
- Pirating (illegal access to other user's messages)
- Watching immoral website before you are 18 years of age
- Illicit material
- Abusive and threatening messages
- Hacking and cracking
- impersonation

(c)(i) How does the use of the mouse make Windows easier compared to the use of the key board alone ? (02 marks)

- a mouse is user – friendly for computers
- a mouse is easy and convenient to use
- saves time

(ii)State any **two** major problems that often affect the proper functioning of the mouse.

(02 marks)

- it is not easy and convenient to input text with a mouse
- issuing commands by using a mouse is slower than by using a key board.
- It needs some practice in order to control a mouse properly.
- dirty disrupts motion of the ball.
- Nature of surface need for mouse-must be suitable.
- Should not be too rough and not to smooth.
- A mouse requires a flat surface to operate.

(iii) Suggest any **two** ways the mouse can be protected from the problems in (c)(ii) above. (02 marks)

- Cleaning the ball and rollers regularly.
- Providing the correct roll surface/mouse pad.
- Avoid mouse falling.

Name..... Centre/Index No. /

Signature.....

840/1

COMPUTER STUDIES

PAPER 1

Nov. /Dec. 2007

2 hours 30 minutes

UGANDA NATIONAL EXAMINATION BOARD

Uganda Certificate of Education

COMPUTER STUDIES

Paper 1

2 hours 30 minutes

INSTRUCTIONS TO CANDIDATES:

Write your name, signature, centre and index number in the spaces above.

*This paper consists of three sections **A**, **B**, and **C**.*

*Section **A** contains **20** compulsory objective-type questions. The correct alternative **A**, **B**, **C** or **D** against each question must be written in the box provided on the right hand side of each question.*

*Section **B** contains six structured questions. Attempt any four questions.*

Answer to section **B** answers **must** be written in the space provided in the question paper.

Section **C** contains **three** essay questions. Answers to section **C must** be written in the answer booklets provided.

For Examiner's Use only

MCQ	Q21	Q22	Q23	Q24	Q25	Q26	Q27	Q28	Q29	Total

SECTION A (20 MARKS)

1. The scientific milestone of using Integrated Circuits (IC) was a characteristic of the
 - A. First generation
 - B. Second generation
 - C. Third generation
 - D. Fourth generation.☐
2. What major invention defined the second generation of computers?
 - A. Magnetic cores
 - B. Machine language
 - C. Micro processor
 - D. Transistors☐
3. A device that interprets and executes the instructions in the computer and also called the brain of the computer is the
 - A. System unit.
 - B. Base Unit
 - C. CPU
 - D. ALU☐
4. In which computer classification is a mainframe categorized?
 - A. process
 - B. Size
 - C. Process power
 - D. Purpose☐
5. Which of these factors does not affect internet speeds?
 - A. Band width
 - B. Type of media
 - C. Traffic
 - D. World Wide web☐
6. Which one of the following is a set of impact printers?
 - A. Inkjet printers
 - B. Bubble jet printers☐

- C. Line printers
D. Thermal printers.
7. One way of protecting the information on a computer is
A. Defragmenting the disk
B. Formatting the disk
C. Sorting the data on the disk
D. Backing up the data onto different media. ☐
8. Computer programs used in tasks such as removal of viruses or data compression can be categorized as
A. Word processors.
B. Desktop publishing.
C. Utility programs.
D. Communication programs. ☐
9. Which one of the following is not a word processor?
A. Microsoft word.
B. Word wrap
C. Word perfect
D. Lotus word pro ☐
10. The contents of an entire text file can be referred to as a
A. Document.
B. Word processor
C. Paragraph
D. Page ☐
11. A mega byte is equivalent to kilobytes.
A. 1024
B. 1048576
C. 11534336
D. 104857600. ☐
12. are programs that manipulate numbers and figures and also perform advanced chart drawing.
A. Word processors.
B. Databases
C. Spreadsheets.
D. Presentations ☐
13. This networking protocol does not relay information out of a LAN.
A. HTTP
B. TCP/IP
C. TELNET.
D. NETBEUI. ☐
14. is a local area network of computers whose users use web pages and transmission protocol to communicate with each other on the network.
A. Intranet
B. Extranet.
C. Client server
D. Internet ☐
15. The basic use of a primary key in database is to

- A. Uniquely identify a record.
 - B. Act as an alternative identifier.
 - C. Sort records
 - D. Modify a file structure.
16. In Software, a field is the entire column that contains similar data.
- A. Word processor
 - B. Database.
 - C. Spreadsheet.
 - D. Presentation
17. The primary purpose of presentation software is to
- A. Create awareness, documents, letters and reports.
 - B. Design, create and edit slides for overheads
 - C. Create and edit graphics.
 - D. Create newsletters, brochures and booklets.
18. The process of computing data entered in a database with a set of predefined rules or values to check if the data is acceptable is known as
- A. Browsing.
 - B. Validating.
 - C. Sorting
 - D. Querying.
19. Rights enforceable by law accorded to a developer of software is called
- A. Copyright
 - B. Patent rights
 - C. Trade secret right
 - D. Trade mark
20. The future generation of computers will be characterized by advanced robotics, computer vision-based mobile robots and
- A. low processing systems
 - B. expensive computer systems
 - C. expert systems
 - D. mechanical systems.

SECTION B (60 MARKS)
Attempt any four question

21. (a) State any **three** advantages and **three** disadvantages of dot matrix printers over laser jet printers.

Advantages (03 marks)

.....

...Disadvantages (03 marks)

.....

...

- (b) Identify any **three** advantages of display devices such as monitors over printers.

(03 marks)

.....
.....
... (c) (i) Distinguish between **primary** and **secondary** storages . (02 marks)

.....
..... (ii) Give an example of each type of storage in (c) (i) above. (02 marks)

.....
..... (iii) Identify **one** disadvantage of a hard disk over a floppy disk. (01 mark)

.....
(d) State a device that should be acquired along with a computer to help a user save work when electricity is switched off. (01 mark)

.....
(a) (i) what do you understand by the terms below in reference to word processing ?
(i) **Formatting** (01 mark)

.....
(ii) **Editing** (01 mark)

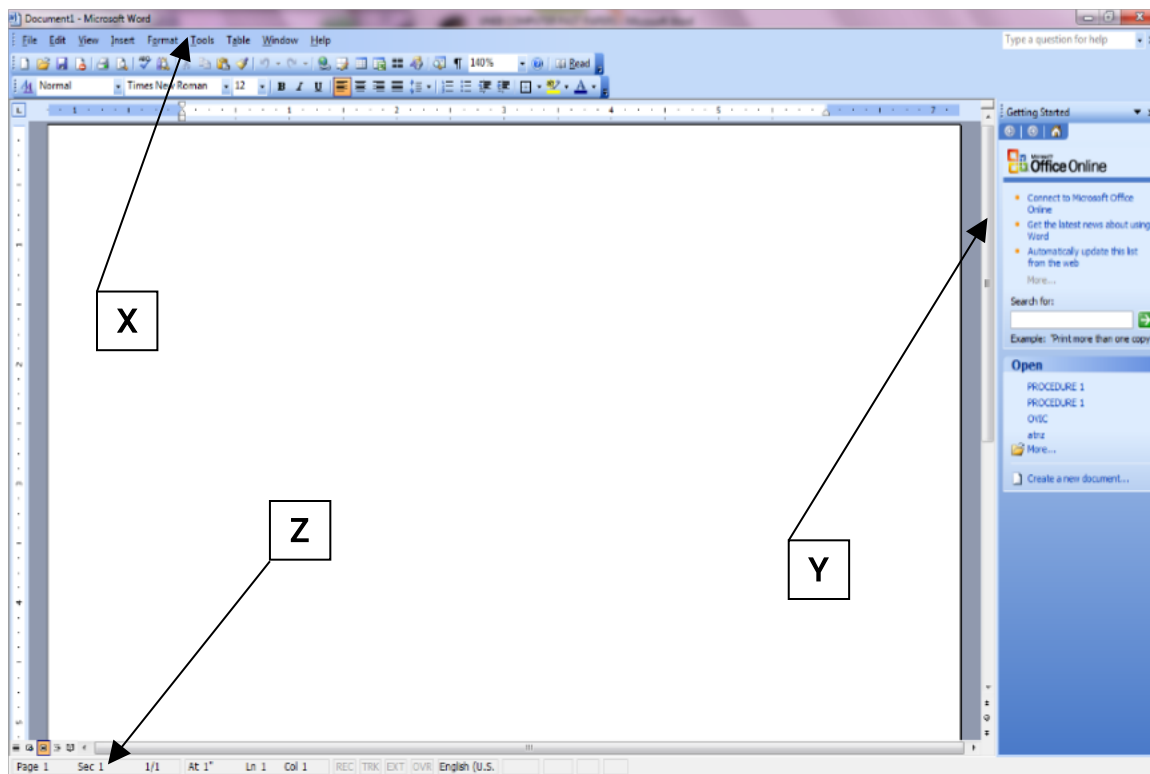
.....
(iii) **Saving** (01 mark)

.....
(ii) Give **two** advantages of a hard copy over a soft copy. (02 marks)

.....
..... (b) Identify **four** advantages of using a word processing software instead of an ordinary typewriter. (04 marks)

.....
..... (c) Describe one situation where it is more beneficial to use Desktop publishing software instead of word processing software. (03 marks)

.....
... (d) Name the labeled bars on a word processing screen below (03 marks)



X.....
 Y.....
 Z.....

22. The worksheet below shows company bills (in dollars) paid for the months of July, August and September:

	A	B	C	D	E	F
1		July	August	September	Total(\$)	Average(\$)
2	Rent	72	72	106	250	83.33
3	Electricity	24	0	66	90	30.00
4	Telephone	96	90	114	300	100.00
5	Stationery	48	38	64	150	50.00
6	Total	240	200	350	790	

(a) Write down the formulas to calculate ;

(i) Totals for the month of July, August and September

Rent

(01 mark)

Electricity

(01 mark)

Telephone

(01 mark)

Stationery

(01 mark)

.....
(ii) Average for the months of July, August and September

Rent

(01 mark)

.....
Electricity

(01 mark)

.....
Telephone

(01 mark)

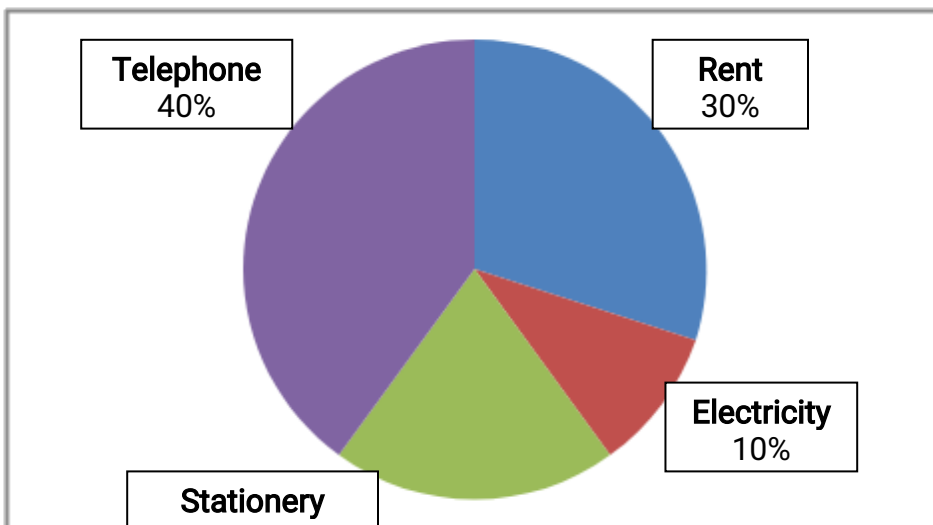
.....
Stationery

(01 mark)

.....
(b) It was an error to enter zero (0) in cell C3. State the cells in which the values would change automatically when the correct amount is put.
(03 marks)

.....
..... (c) List the values in the range B3:D4 in the above table.
(02 marks)

.....
(d) Shade on the worksheet above the cells that must be used to create the pie chart below:



23. (a) Explain the following terms;

(i) **Hyperlink**

(02 marks)

.....
(ii) **Web browser** (give examples)

(02 marks)

.....
(iii) **Web master**

(02 marks)

(01 mark)

(02 marks)

(02 marks)

(01 mark0

(03

(02 marks)

(02 marks)

(02 marks)

.Timing

.....
.....
..... (d)What is a **Master Layout** as used in presentations?
(01 mark)

.....
..... (a) (i) What is a Database Management System(DBMS) ?
(02 marks)

.....
..... (ii) Give any **three** examples of (i) above.
(03 marks)

.....
.....
.....
.....
(b) Various DBMS use different data types .Specify any **five** data types used in DBMS.
(05 marks)

.....
.....
.....
.....
(c) State any **five** advantages of using database management Systems instead of manual databases. (05 marks)

SECTION C. (20 MARKS)
Attempt any one question.

25. Describe the various categories of computer application software available today.
(20 marks)

26. Reasonably predict the future in computing; from the perspective of the past and the present development in the technology and use of computers.
(20 marks)

27. Describe the merits and demerits of using internet. (20 marks)

**SOLUTIONS TO UNEB 2007
SECTION A (20 MARKS)**

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

SECTION B

21. (a) State any **three** advantages and **three** disadvantages of dot matrix printers over laser jet printers.

Advantages

(03 marks)

- They are inexpensive compared non-impact types.
- They can use stencils very well unlike any other non-impact type.
- They can print on triplicate document because of striking mechanism.
- Can print on multi-part stationary or make carbon copies.
- They can withstand dusty environment, vibrations and extreme temperature.

Disadvantages

(03 marks)

- They are usually slow unlike non-impact types.

- They are noisy when printing.
 - They are not readily available on the market.
 - They are not easily serviced because they are based on old technology.
- (b) Identify any **three** advantages of display devices such as monitors over printers. (03 marks)

- Output can be modified or change easily.
- They are generally quiet.
- No need of paper.
- Scrolling enables focus on a particular or part of the document.
- The time taken to display the image is fast.

(c) (i) Distinguish between **primary** and **secondary** storages . (02 marks)

- Primary storage refers to temporary storage of information the computer is currently working on while secondary storage is the permanent storage of information for the future retrieval.

(ii) Give an example of each type of storage in (c) (i) above. (02 marks)

- Primary-RAM
 - Secondary-magnetic and optical storage media
- (iii) Identify **one** disadvantage of a hard disk over a floppy disk. (01 mark)

- A hard disk is less portable compared to a floppy disk.
- A hard disk is costly in terms of cost per unit of data.

- Hard disks are susceptible to virus-attacks.

(d) State a device that should be acquired along with a computer to help a user save work when electricity is switched off. (01 mark)

- An uninterruptible power supply(ups)

22. (a) (i) what do you understand by the terms below in reference to word processing ?

(iv) **Formatting** (01 mark)

Refers to making changes to the appearance of a document .

(v) **Editing** (01 mark)

Refers to the reviewing and changing a document by making addition, deletions, or other changes to conform to some agreed-upon standard.

(vi) **Saving** (01 mark)

It refers to copying data from a temporary area(memory)to a more permanent storage medium (secondary storage)

(ii) Give **two** advantages of a hard copy over a soft copy. (02 marks)

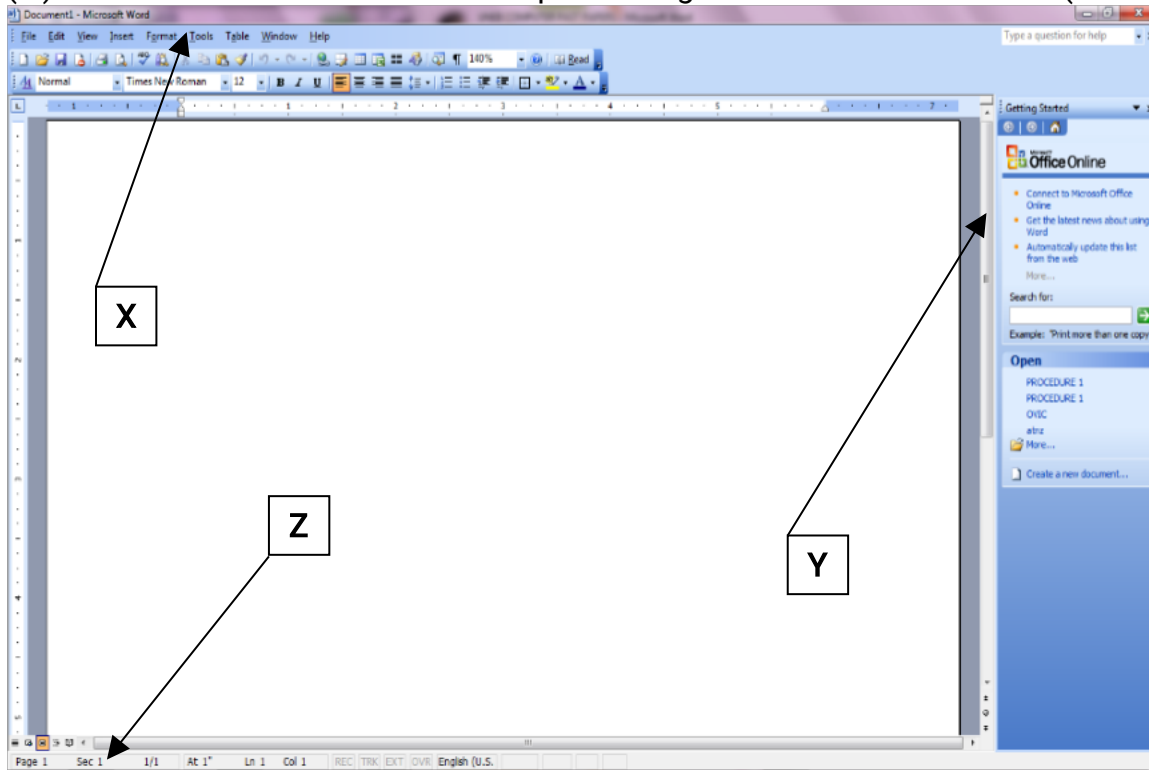
- It can easily accessed by both the poor and rich readers.
- It cannot be easily changed with tracing.
- It can be read without a computer.
- It is cheaper compared to soft copy.

(b) Identify **four** advantages of using a word processing software instead of an ordinary typewriter. (04 marks)

- You can make changes without retyping.
- Documents can be previewed before printing.
- Convenient to create for letters and mailing labels.

- Possible to create a new document from an existing one.
- (c) Describe one situation where it is more beneficial to use Desktop publishing software instead of word processing software. (03 marks)

- To produce news papers, magazines and leaflets.
- (d) Name the labeled bars on a word processing screen below (03 marks)



X-menu bar

Y-scroll bar (vertical)

Z-status bar.

23. The worksheet below shows company bills (in dollars) paid for the months of July, August and September:

	A	B	C	D	E	F
1		July	August	September	Total(\$)	Average(\$)
2	Rent	72	72	106	250	83.33
3	Electricity	24	0	66	90	30.00
4	Telephone	96	90	114	300	100.00
5	Stationery	48	38	64	150	50.00
6	Total	240	200	350	790	

- (a) Write down the formulas to calculate ;
 (i) Totals for the month of July, August and September

Rent

=@ or sum (B2:D2) or B2+C2

(01 mark)

Electricity (01 mark)
=@ or sum (B3:3) or B3+C3+D3

Telephone (01 mark)
=@ or sum (B4:D4) or B4+C4+D4

Stationery (01 mark)

.....
(ii) Average for the months of July, August and September
Rent (01 mark)

.....
Electricity (01 mark)

.....
Telephone (01 mark)

.....
Stationery (01 mark)

.....
(b) It was an error to enter zero (0) in cell C3. State the cells in which the values would change automatically when the correct amount is put.

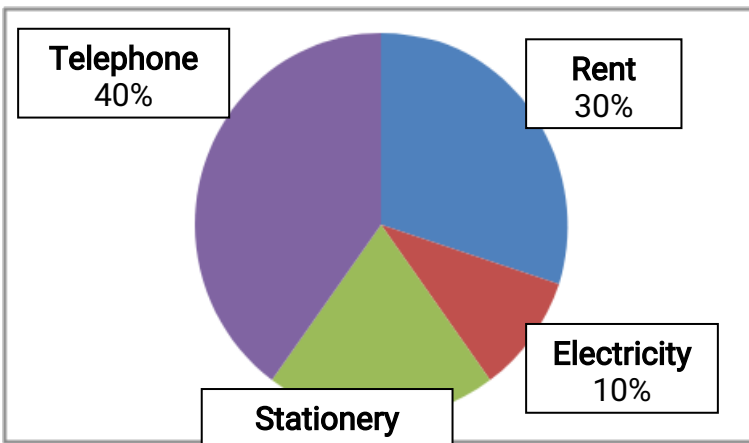
(03 marks)

E:3, F:3, C:6 and E:6 would change automatically.

(c) List the values in the range B3:D4 in the above table. (02 marks)

24,66,69,90,,114 and 0

(d) Shade on the worksheet above the cells that must be used to create the pie chart below:



24. (a) Explain the following terms;
(i) **Hyperlink** (02 marks)

.....
(ii) **Web browser** (give examples) (02 marks)

.....
.....

(iii) **Web master** (02 marks)

.....
.....

(iv) **web site** (01 mark)

.....
.....

(b) (i) write **URL** in full and state its use. (02 marks)

.....
.....

(ii) Give **two** examples of URL. (02 marks)

.....
.....

(C) (i) What is an **ISP** in full in relation to internet ? (01 mark)

.....
.....

(ii) State the use of an ISP. (01 mark)

.....
.....

(iii) State any **three** factors that should be considered in choosing an ISP. (03 marks)

.....
.....

25. (a) Describe briefly the functions of the following views as used in presentation software:

(i) **Outline view** (02 marks)

.....
.....

(ii) **Slide sorter view** (02 marks)

.....
.....

(iii) **Notes pages view** (02 marks)

.....
.....

(b) What is **Auto Content Wizard** in presentation software? (02 marks)

.....
.....

(c) (i) What is a **slide show** as used in presentations? (02 marks)

.....
.....

(ii) Explain the following terms as used in a slide show:

Transitional effect

(02 marks)

.....

.....

.....

Timing

(02 marks)

.....

.....

.....

(d)What is a **Master Layout** as used in presentations?

(01 mark)

.....

.....

.....

26. (a) (i) What is a Database Management System(DBMS) ?
marks)

(02 marks)

.....

.....

.....

(ii) Give any **three** examples of (i) above.
marks)

(03 marks)

.....

.....

.....

.....

(b) Various DBMS use different data types .Specify any **five** data types used in DBMS.

(05 marks)

.....

.....

.....

.....

.....

(c) State any **five** advantages of using database management Systems instead of manual databases.

(05 marks)

.....

.....

.....

.....

.....

SECTION C (20 MARKS)

Attempt any one question in this section

27. Describe the various categories of computer application software available today.

(20 marks)

marks)

28. Reasonably predict future in computing from the perspective of the past and the present developments in technology and use of computers. (20

marks)

29. Describe the merits and demerits of using Internet. (20 marks)

Name..... Centre/Index No. /

Signature.....

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COMPUTER STUDIES

PAPER 1

Nov. /Dec. 2008

2 hours 30 minutes

UGANDA NATIONAL EXAMINATION BOARD

Uganda Certificate of Education

COMPUTER STUDIES

Paper 1

2 hours 30 minutes

INSTRUCTIONS TO CANDIDATES:

Write your name, signature, centre and index number in the spaces above.

*This paper consists of three sections **A**, **B**, and **C**.*

*Section **A** contains **20** compulsory objective-type questions. The correct alternative **A**, **B**, **C** or **D** against each question must be written in the box provided on the right hand side of each question.*

*Section **B** contains six structured questions. Attempt all questions.*

*Answer to section **B** answers **must** be written in the space provided in the question paper.*

*Section **C** contains **three** essay questions. Answers to section **C must** be written in the answer booklets provided.*

For Examiner's Use only

MCQ	Q21	Q22	Q23	Q24	Q25	Q26	Q27	Q28	Q29	Total

SECTION A (20 MARKS)

1. Computer system configuration information is stored in

- A. CMOS
- B. BIOS
- C. RAM
- D. CD-ROM.

☐

2. All files ending with the following extensions are executable except.

- A. .bat
B. .com
C. .exe
D. .dos
3. Ais a computer output device.
A. Light pen
B. Plotter
C. Digital camera
D. Scanner
4. What is the meaning of the term range as used in spreadsheets?
A. Intersection of rows and columns.
B. A reference to a particular cell
C. A group of adjacent cells.
D. A collection of worksheets.
5. The term TCP/IP refers to
A. Translated control Protocol/Internet protocol
B. Translated control protocol/Intranet protocol
C. Translated control protocol/Internet protocol
D. Translated control protocol/Information protocol
6. is an example of a presentation program.
A. Excel
B. Lotus 1-2-3
C. Access
D. Power point
7. The device that stores programs and data when working with a computer and is lost when power is switched off is
A. CPU
B. ROM
C. GUI
D. RAM
8. Which of the following is necessary for running application software?
A. Operating
B. Network interface Card
C. Utility program
D. Graphical user interface
9. When the pointer on a computer screen does not move well ,what device is more likely to be causing the problem?
A. Pentium processor
B. Keyboard
C. Mouse
D. Monitor
10. Which of the following attaches itself to a program in your computer?
A. Computer virus
B. Computer bug
C. Computer object
D. Computer code.
- ☐
☐
☐
☐
☐
☐
☐
☐
☐

11. Which of the following statements are correct?
- I Each web browser has a unique IP address
 - II HTTP is a communication protocol
 - III An internet domain may be referred to as HTML
 - IV The internet is a network of networks.
- A. I & II only. ☐
- B. I, II & III only
- C. II & IV only
- D. II, III & IV only.
12. A is a term used in web design to connect one document or file to another.
- A. Linker
- B. Hyperlink
- C. Hypertext ☐
- D. Hyper web
13. The text which appears in the lower margin of a page is called a
- A. Header
- B. Gutter
- C. Margin text ☐
- D. footer
14. Which of the following is not a representation of a type of network topology?
- A. Hub
- B. Ring
- C. Bus
- D. Star ☐
15. Files containing highly structured and organized data are
- A. Documents
- B. Worksheets
- C. Databases. ☐
- D. Communications
16. An area of artificial intelligence that stimulates certain experiences using special headgear, gloves and software that translates data into images is.
- A. Collaborative technology
- B. Virtual reality
- C. Hypermedia ☐
- D. Shell
17. Tables are primary requirements most applied to.
- A. word processing
- B. Presentations
- C. Web publishing ☐
- D. Databases.
18. invented the tabulating machine that was used in the USA population census in the 18th century.
- A. Blaise Pascal
- B. Hollerith
- C. Napier ☐

- D. Aiken
19. Achen wants to get some information from the internet on designing success cards for her Fine Art examination. What kind of software would she need to use to get his information?
- A. web browser
 - B. web authoring software
 - C. E-mail software.
 - D. Desktop publishing
20. The points of connection between a computer (motherboard) and its peripherals are
- A. network cards
 - B. ports.
 - C. cables.
 - D. sockets.



SECTION B (60 MARKS)
Attempt all questions in this section.

21. (a) Describe the term **evolution** of computers. (02 marks)

.....

- (b) Mention **four** main characteristics of the first generation computers. (04 marks)

.....

- (c) How do the second generation computers differ from fifth generation computers? List down **four** differences. (04 marks)

.....

22. The database below contains data about items that have been ordered from various suppliers.

SUPPLIER	CODE	DELIVERY DATE	PRICE (\$)
AD12	2146	28/09/07	44.99
CO35	3724	30/09/07	249.50
MO18	5613	05/10/07	98.15
LO47	5613	11/10/07	102.75
PO29	7215	17/10/07	127.50
RO16	4639	19/10/07	22.89

- (a) State the data type of the fields in the given table.

- (i) **SUPPLIER** (01 mark)

- (ii) **CODE** (01 mark)

- (iii) **DELIVERY DATE** (01 mark)

.....
(iv) **PRICE** (01 mark)

.....
(b) The following search condition is input
(CODE =5613) AND (PRICE (\$) <100)
Write down the output using only the SUPPLIER field. (01 mark)

.....
(c) Write down a search condition that will search for all items with a price more than \$50 that will be delivered in October.
(03 marks)

.....
(d) Write down using only the SUPPLIER field if the records were sorted in descending order.
(02 marks)

.....
..... (a) (i) What is a **spreadsheet**?
(02 marks)

.....
..... (ii) Give **three** examples of spreadsheet software.
(03 marks)

.....
... (b) Name **three** types of data that can be placed in a spreadsheet cell. (03 marks)

.....
... (c) What is a **chart** in spreadsheets? (02 marks)

.....
..... (a) In relation to computers, explain the meaning the meaning terms.
(i) **Intranet** (01 mark)

.....
..... (ii) **Internet**
(01 mark)

.....
..... (b) (i) Outline **three** benefits of networking computers. (03 marks)

.....
..... (ii) Outline **three** demerits of networking computers. (03 marks)

(02

(04 marks)

(02 marks)

(02 marks)

(02 marks)

(02 marks)

(02 marks)

SOLUTIONS TO UNEB 2008 SECTION A (20 MARKS)

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

SECTION B (60 MARKS)

21. (a) Describe the term **evolution of computers**? (02 marks)

Evolution of computers refers to the technological advancement in the development of computers over a period of time.

(b) Name **four** main characteristics of first generation computers. (04 marks)

- They relied on vacuum tubes to store and process information
- They used magnetic drum memories
- Maximum memory size was approximately 2000bytes (2kilobytes)
- The speed was 10 kilo instruction per second
- Used punched cards for input and output
- Limited primary memory

(c) How do the second generation computers differ from fifth generation computers? List down four differences

Second generation computers	Fifth generation computers
Used transistors for internal operations	Used very large integrated circuits for internal operations
Marked the beginning of high level programming	A variety of high level programming is being used
Slow processing speeds up to 32 kilobytes only	High processing speeds measured in Giga hertz from 4.0 to 10 Giga hertz
Hard magnetic drums for storage of data	Uses hard disks made of Magnetic materials shielded with metal for data storage

22. The database below contains data about items that have been ordered from various Suppliers.

SUPPLIER	CODE	DELIVERY DATE	PRICE (\$)
AD 12	2146	28/09/07	44.99
C0 35	3724	30/09/07	249.50
MO 18	5613	05/10/07	98.15
LO 47	5613	11/10/07	102.75
PO 29	7215	17/10/07	127.50
RO 16	4639	19/10/07	22.89

(a) State the data types of the fields in the given table.

(i) **Supplier**

(01 mark)

Text

(ii) **Code** (01 mark)

Number

(iii) **Delivery Date** (01 mark)

Date/Time

(iv) **Price** (01 mark)

Currency

(b) The following search condition is input (CODE = 5613) AND (PRICE (\$) <100). Write down the output using the Supplier field. (01 mark)

Supplier = MO18

(c) Write down a search condition that will search for all items with a price more than \$50 that will be delivered in October.

(03 marks)

(PRICE (\$) > 50) AND DELIVERY DATE (<= 31/10/07)

(PRICE (\$) > 50) AND DELIVERY DATE = OCTOBER

(d) Write down the output using only the SUPPLIER field if the records were sorted in descending order. (02 marks)

RO16, PO29, MO18, LO45, CO12, and AD12

23. (a) (i) What is a **spreadsheet**? (02 marks)

Spreadsheet software is used to organize data in rows and columns, and perform calculations on the data.

(ii) Give **three** examples of spreadsheet software. (03 marks)

- Microsoft Excel
- Lotus 1-2-3
- Corel Quattro pro
- Frame works

(b) Name **three** types of data that can be placed in a spreadsheet cell. (03 marks)

- Values
- Graphs
- Data
- Number

(c) What is a chart in **spreadsheets**?

Charting allows a user to display data in a graphical, rather than a numerical form eg line charts, bar charts, bar charts and pie charts.

24. (a) In relation to computers, explain the meaning of the following terms?

(i) **Intranet**. (01 mark)

Intranet is a small version of the Internet used within an organization

(ii) **Internet**. (01 mark)

Internet is a worldwide collection of networks linked together.

(b) (i) Outline **three** benefits of networking computers. (03 marks)

- Facilitates communication because people can communicate efficiently and easily via e-mail, chat rooms, telephony and video conferencing.
- Reduced cost by sharing hardware and software using net
- Easy control and management of computers
- Allow tight control over who has access to which data.

(ii) Outline **three** demerits of networking computers. (03 marks)

- Virus threats
- Once the server breaks down the whole system goes down
- It is expensive to set up especially cables

(c) What is a **server** in a computer network? (02 marks)

A server is the central or host computer that manages the resources on a computer.

25. (a) A computer system is a composition of several components. List any **four** components that make up a computer system. (04 marks)

- | | |
|-----------------|---------------|
| • Software | • Human ware |
| • Hardware | • Data |
| • Communication | • Information |

(b) Briefly, explain the function of any **three** components you have given in (a) above.

(06 marks)

- Software is a term of electronic instructions that tell the computer how to perform a task.
- Hardware is comprised of the electronic and the electro-mechanical parts of the computer.
- Human ware are users or operators of a computer that manage and process information
- Communication hardware facilitates connection between computers and computer systems over phone and other channels
- Data are raw fact and figures that are processed into information.
- Information is summarized data or otherwise manipulated data.

26. (a) (i) Explain what is meant by the term **operating system**. (02 marks)

It is a set of programs containing instructions that co-ordinates all the activities among computer hardware devices.

(ii) Give any **two** features of a graphical user interface. (02 marks)

- Buttons presenting option
- Use of uniform menus
- Use of icons representing commands
- Images representing tasks or commands

(b) (i) Describe as precisely as possible the use of each of the following features.

List Box (02 marks)

List box is used when there is need to choose from an option

Drop down list (02 marks)

Drop down list is used if the menu is expanded

(c) Clearly state one example where any one of the above features in (b) (ii) can be used.

(02 marks)

List box – can be used in creating options in databases to ease selection of option

Drop down list – can also be used to word processing menu. All the menu titles have drop down lists

Name..... Centre/Index No./.....

Signature.....

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COMPUTER STUDIES

PAPER 1

Nov. /Dec. 2009

2 hours 30 minutes

UGANDA NATIONAL EXAMINATION BOARD

Uganda Certificate of Education

COMPUTER STUDIES

Paper 1

2 hours 30 minutes

INSTRUCTIONS TO CANDIDATES:

Write your name, signature, centre and index number in the spaces above.

*This paper consists of three sections **A**, **B**, and **C**.*

*Section **A** contains **20** compulsory objective-type questions. The correct alternative **A**, **B**, **C** or **D** against each question must be written in the box provided on the right hand side of each question.*

*Section **B** contains six structured questions. Attempt all questions.*

*Answer to section **B** answers **must** be written in the space provided in the question paper.*

*Section **C** contains **three** essay questions. Answers to section **C** **must** be written in the answer booklets provided.*

For Examiner's Use only

MCQ	Q21	Q22	Q23	Q24	Q25	Q26	Q27	Q28	Q29	Total

SECTION A (20 MARKS)

- Disks come with a..... feature as a measure of guarding against accidental erasing.
A. Write protect
B. Saving
C. Format
D. Default ☐
-refers to the number of computers controlled by a central host computer.
A. Servers
B. Stand alones
C. Clients
D. Switches ☐
- Which of the following characteristics will be associated with future computers?
A. Expensive computers.
B. Advanced robotics.
C. Big sized system
D. Inadequate storage systems. ☐
- A web page has a unique address called
A. Uniform Resource locator
B. Hyper text transfer protocol.
C. Virtual Reality Modeling
D. Transmission control protocol /internet protocol ☐
- Choose the software program used during meetings to enhance speakers ideas.
A. Word processing
B. MS Excel

- C. Presentation ☐
- D. Desktop publisher
6. Which of the following can be written to, only once?
- A. Diskette
- B. Hard disk
- C. Flash disk ☐
- D. CD-ROM
7. The word processing tool that offers similar words or alternatives is called a
- A. Word checker.
- B. Thesaurus
- C. Word scanner ☐
- D. Spell checker.
8. Real time processing is a task of
- A. Utility program
- B. Tailor made application
- C. Programming language ☐
- D. Operating system.
9. Is an example of a Boolean data type?
- A. 001011
- B. \$ 200
- C. YES/NO ☐
- D. 26/04/2040
10. Software uses hyper link as one of its tools for developing a web page .
- A. Web browsers
- B. Web publishers ☐
- C. Presentations
- D. Communications
11. Is not an example of an input device?
- A. OCR
- B. MICR
- C. OMR ☐
- D. LCD
12. A Local Area Network (LAN) without a dedicated server is called
- A. A client server
- B. A peer to peer
- C. A ring ☐
- D. An intranet
13. Computers are electronic devices that accept instructions, process input and produce.
- A. Information
- B. Prewritten programs.
- C. Data ☐
- D. End users.
14. Data from a floppy disk is transferred to the computer through
- A. Read -write heads
- B. Access arms
- C. Drive gate ☐
- D. Drive A
15. Which of the following languages was being used for students new to programming?
- A. FORTRAN

- B. COBOL
C. BASIC
D. PASCAL ☐
16. Special files that make a computer start when switched on are called
A. Document files
B. Command files
C. Hidden files
D. Boot files ☐
17. The text you type using a computer is directly stored in ...
A. Ram
B. A file
C. A directory
D. ROM ☐
18. One of the most useful features of the spreadsheet is the ability to
A. Perform what-if analyses
B. Spell check
C. Create tables
D. Perform calculations ☐
19. A computer program which used to display information on the internet is called a . . .
A. Gopher site
B. Browser
C. Web site
D. Home page ☐
20. Which of the following is an interactive computer program that helps users solve problems?
A. Robot
B. Perception system
C. Expert system
D. Natural language ☐

SECTION B (60 MARKS)
Attempt all numbers in this section

21. (a) Describe the computer terms below :
(i) **Line spacing** (02 marks)
.....
.....
- (ii) **Changing case** (02 marks)
..... (b) Explain the following
terms in presentation software:
(i) **Transition Looping** (02 marks)
.....
..... (ii) **Slide Master**
(02 marks)
.....
..... (iii) **Slide Layout**
(02 marks)
.....
.....
22. (a) State any **two** functions of a Central Processing Unit (CPU). (02 marks)
.....
.....

(b) Define the following memory storage terms:

(i) **Bit** (01 mark)

..... (ii) **Byte**
(01 mark)

..... (c) State **two** categories of computer memory giving an example in each case .

(i)(01 mark)

Example

..... (01 mark)

(ii) (01 mark)

Example

..... (01 mark)

(d) Describe the major difference between the two categories of computer memory in (c) above.

(02 marks)

.....
23. Describe a **relative address**? (02 marks)

.....
(b) Give **four** advantages of electronic spreadsheets over manual spreadsheets.

(04 marks)

.....
(c) A teacher keeps a class list containing the following data for each student:
Name, Student index number, test scores.

(i) State the data type for each of these fields:

Name (01 mark)

..... **Student index number:**

(01 mark)

..... **Test scores**

(01 mark)

..... (ii) Which field can serve as a primary key for the record? (02 marks)

.....
24. (a) What is a **microprocessor**? (02 marks)

.....
(b) Describe the difference between a **digital** computer and an **analog** computer. Give an example of each. (04 marks)

.....
.....
.....
.....
(c) What electronic technology characterized each of the four generations of computers?

(i) First generation (01 mark)

(ii) Second generation. (01 mark)

(iii) Third generation (01 mark)

(iv) Four generation (01 mark)

25. (a) Explain the following terms with examples:

(i) **Off-the shelf software** (02 marks)

.....
(ii) **Custom software** (02 marks)

.....
(b) (i) What is a **utility program**? (02 marks)

.....
(ii) State any **four** functions of utility programs. (04 marks)

.....
26. (i) Distinguish between **internet** and **World Wide Web**. (02 marks)

.....
(ii) Mention any **two** services offered by the internet. (02 marks)

.....
(b) Define the following terms.

(i) **Band width** (01 mark)

.....
(ii) **Packet switching** (01 mark)

.....
(c) Name **four** basic items that are required to gain access to the internet. (04 marks)

SECTION C

Attempt any one question

27. A Computer system comprises hardware, software, user data and communication. Describe the importance of each component.
28. "The Internet is a harmful tool to man". What is your opinion?
29. Suggest ways in which computers can be used in business and industry in Uganda.

SOLUTIONS TO UNEB 2009

SECTION A (20 MARKS)

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

SECTION B (60 MARKS)

21. (a) Describe the computer terms below.

(i) **Line spacing** (02 marks)

Line spacing refers to the vertical distance between lines of text

(ii) **Change case** (02 marks)

Line spacing refers to making a text in uppercase, lower case, Title case or

Toggle case

(b) Explain the following terms in presentation software

(i) **Transition Looping** (02 marks)

Transition looping is a facility which sets up the presentation to run continuously until it is stopped by the presenter.

(ii) **Slide master** (02 marks)

Slide master is a single slide that controls all other slides in a given presentation

(ii) **Slide layout** (02 marks)

Slide layout is the given design of a slide showing divisions/areas or sections of a slide where work can be done.

22. (a) State any two functions of a central processing unit (CPU) (02 marks)

- CPU is the electronic device that interprets/decodes and carries out the instructions that tell the computer how to work.
- Processing data
- Fetching and sending of commands and instruction.
- Performs arithmetic and logic operations
- Temporary storage/holding of data, instructions and results during processing

(b) Define the following memory storage terms.

(i) **Bit** (01 mark)

Bit is a short form for binary digit that is a bit is the smallest unit of measurement of information.

(ii) **Byte** (01 mark)

Byte is a group of 8bits and represents one character.

(c) State two categories of computer memory giving an example in each case.

(i) Primary memory

Examples

- RAM
- Registers
- ROM

(ii) Secondary memory

Examples

- Hard disk
- Floppy disk
- CD-ROM

(d) Describe the major difference between the **two** categories of computer memory in (c) above.

(02 marks)

Primary memory	Secondary memory
Data can be processed directly from storage	Data cannot be processed directly but must be moved into memory
Located within the CPU	Located outside the CPU
More expensive	Less expensive
Faster access time	Slow access time
Volatile	Non volatile

23. (a) What is a **relative address**? (02 marks)

Relative address is a cell reference which change accordingly as the formula is pasted to other cells in spreadsheets.

(b) Give **four** advantages of electronic Spreadsheets over manual Spreadsheets.

(04 marks)

- It is easy to make changes and corrections
- Performs mathematical, statistical and financial calculations quickly
- Easy to create different kinds of charts
- Operation is faster with the help of in-built functions

(c) A teacher keeps a class list containing the following data for each students.

Name, Student Index Number, Test scores.

(i) State the data types for each of these fields (03 marks)

Name

Text

Student index number

Text

Test scores

Number

(ii) Which field can serve as a primary key for the record? (02 marks)

Students index number (Primary key)

24 (a) What is a **microprocessor**? (02 marks)

It is a very large-scale integrated circuit technology that integrates the computer memory, logic and control circuits on a single chip

(b) Describe the difference between a digital computer and an analog computer.

Give an example of each.
marks)

(04

A digital computer is the type of computer that process data inform of discrete values.

Examples

- Digital watch
- Digital calculator

Analog computers process data in a continuous form.

Examples

- Voltmeter
- Speedometers

(c) What electronic technology characterized each of the four generations of computers?

(04 marks)

First generation

Vacuum tubes

Second generation

Transistors

Third generation

Integrated circuits

Fourth generation

Very large integrated circuits

25. (a) Explain the following terms

(i) **Off-the shelf software**

(02 marks)

Off-the shelf software is commercial software which is copyrighted and designed to meet the needs of a wide variety of users.

Examples

- Ms office suite
- Computer games eg chess, crossword puzzles
- Education software like Encarta

(ii) **Custom software**

(02

marks)

Custom software is a tailor-made software, which is developed at a user's request to perform specific functions.

Examples

- Inventory management system
- Payroll management system
- Library management system

(b) (i) What is a **utility program**?

(02 marks)

Utility programs are part of system software used to support, enhance or expand existing programs in a computer system and make it more and more user friendly.

(ii) State any **four** functions of utility programs.

(04 marks)

- Reduction and compression of files through file compression utilities

- Disk defragmenter
- Data recovery utility
- Disk scanner
- Backup utility

26. (a) (i) Distinguish between **Internet** and **World Wide web**. (02 marks)

Internet is the worldwide collection of networks linked together and WWW is a system of internet servers that support the hypertext markup language.

(ii) Mention any **two** services offered by the Internet. (02 marks)

- Shop for goods and services
- Use online banking
- Download files, listen to music and watch movies
- E-mail

(b) Define the following terms?

(i) **Bandwidth** (01 mark)

Bandwidth is the transfer of speed of data through the channel and is expressed in bits per second

(ii) **Packet switching** (01 mark)

Packet switching is a technique for dividing electronic messages into packets for transmission over a network to their destination.

(c) Name **four** basic items that are required to gain access to the Internet. (04 marks)

- Register with an ISP (internet service provider)
- Network interface card
- Transmission medium
- Network operating system (NOS)
- Browser software eg Internet explorer, Netscape navigator and opera.

Signature.....

COMPUTER STUDIES

Nov. /Dec. 2010

2 hours 30 minutes

Uganda Certificate of Education

Paper 1

2 hours 30 minutes

Write your name, signature, centre and index number in the spaces above.

This paper consists of three sections A, B, and C.

Section A contains 20 compulsory objective-type questions. The correct alternative A, B, C or D against each question must be written in the box provided on the right hand side of each question.

Section B contains six structured questions. Attempt all questions.

Answer to section **B** answers **must** be written in the space provided in the question paper.

Section **C** contains **three** essay questions. Answers to section **C** **must** be written in the answer booklets provided.

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[illegible]

SECTION A (20 MARKS)

1. The technology that made the microcomputers possible was
- A. The vacuum tubes
 - B. Printed circuit boards
 - C. The microprocessor
 - D. Magnetic cores
2. The method which can be used to get files from a remote computer is
- A. WWW
 - B. FTP
 - C. User net
 - D. E-mail
3. The following are field properties of a table in Microsoft Access except?
- A. Field size
 - B. Caption
 - C. Text
 - D. Input mask
4. Which one of the following would qualify to be internal website address?
- A. www.amused.com
 - B. www.@amused.com
 - C. www.amused@.com
 - D. www.@amused@com
5. is the term widely used to describe commercial transactions on the worldwide web
- A. www-commerce
 - B. Net commerce
 - C. Wire commerce
 - D. Electronic commerce
6. Which of the following describes the process of getting a free copy of virus protection software off the Internet?

- A. Uploading
- B. Compressing
- C. Pirating
- D. Downloading

☐

7. The general term used to mean step by step instruction to run a computer is?

- A. Hardware
- B. Software
- C. Network
- D. Compiler

☐

8. The following type of device is usually non-removable

- A. Floppy disk
- B. CD-ROM disk
- C. Hard disk
- D. DVD-ROM disk

☐

9. Which of the following is not classified as an application program?

- A. Operating system
- B. Word processor
- C. Database
- D. Presentation

☐

10. The term given to large forms of networks that exist where many networks are interconnected but not directly linked to the outside is called.....

- A. Wide Area Network
- B. Internet
- C. Extranet
- D. Intranet

☐

11. The manages the entire operations of the central processing unit

- A. Control unit
- B. Arithmetic logic unit
- C. Power supply
- D. RAM

☐

12. Which of the following computers would best suit a small scale factory of about 500 (five hundred) employees to act as a server?

- A. Microcomputer
- B. Minicomputer
- C. Mainframe computer
- D. Super computer



13. **T**he optional subject I chose was computer studies because I want to use it in my future profession. The technical term used in word processing to have the format of the first letter in the above text is
- A. Magnify
 - B. Drop cap
 - C. Change case
 - D. Bold
14. Which of the following is not used in a formula in spreadsheets?
- A. Text data
 - B. Graphical data
 - C. Logical expression
 - D. Numerical data
15. A is a system that protects an organizations' computer system from external access such as through the Internet.
- A. HTTP
 - B. Domain
 - C. Flame
 - D. Fire wall
16. The term used to explain the computers' ability to accept all kinds of inputs (functions), data, and multimedia e.t.c is called.
- A. Versatility
 - B. Diligence
 - C. Storage
 - D. Automation
17. Which of the following devices may help you continue using your computer when electricity is cut off
- A. Power regulator
 - B. Control unit
 - C. Uninterruptible power supply
 - D. Transformer

18. The process of restarting a computer when it is already turned on is termed as
- A. Cold boot
 - B. Warm boot
 - C. Cold reset
 - D. Warm reset
19. is a software that stores large amounts of records for a long time.
- A. Unix
 - B. Ms – excel
 - C. Front page
 - D. Ms -Access
20. The title master command is a feature in Programs
- A. Presentation
 - B. Spreadsheet
 - C. Database
 - D. Word processing

SECTION B (60 MARKS)

Attempt all questions in this section

21. (a) Outline any **three** characteristics of computers. (06 marks)

.....

.....

.....

.....

- (b) State any **two** examples of personal computers. (02 marks)

.....

- (c) Mention **two** uses of computers in the area of entertainment. (02 marks)

.....

- (a) Explain the following terms as applied to a word processor.

- (i) **Character map** (02 marks)

.....

.....**Formatting**
(02 marks)

.....

.....**Footer**
(01 mark)

.....
.....**Page break**
.....
(01 mark)
.....

.....
(b) Outline **four** ways in which word processing can help in business activities.

(04 marks)
.....
.....

..... (a) Give **two** examples
of Spreadsheet packages. (02 marks)
.....

.....
(b) Study the table below and answer the questions that follow

	A	B	C	D	E	F	G	H
1	SCORES OF SELECTED S4 STUDENTS IN SELECTED SUBJECTS							
2	NAME	MATH	ENGLISH	PHYSICS	CHEMISTRY	COMPUTER STUDIES	TOTAL SCORE	AVERAGE SCORE
3	Apollo							
4	Bob							
5	Charles							
6	Harriet							
7	George							
8	David							
9	Teo							
10	Titus							
11	Zuth							

(b) Give the cell reference for

(i) **Computer studies**

(01 mark)

.....**Average score**
(01 mark)

.....
(c) State the formula for getting the

(i) **Total score for all the candidates**

(02 marks)

.....
(ii) **Average score for Bob**

(02 marks)

.....
(iii) **Overall best candidate**

(01 mark)

.....
(iv) **Candidate with the least score**
mark)

(01

..... (a) (i) Distinguish
between a **Browser** and an **E-mail** software. (02 marks)
.....

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

(02 marks)

.....
.....
(b) What is meant by the following terms?

(i) **Search engine** (02 marks)

.....
.....
(ii) **Multimedia** (02 marks)

.....
(c) State any **two** examples of webpage authoring software (02 marks)

..... (a) Write the following abbreviations in full in relation to computers.

(i) **BIOS** (01 mark)

.....
.....**ALU**
(01 mark)

.....
.....**CMOS**
(01 mark)

.....
.....**ICT**
(01 mark)

.....
(b) Give one function of each of the following.

(i) **ROM – BIOS** (01 mark)

.....
(ii) **CMOS** (02 marks)

.....
(c) (i) What is meant by the term **cache**? (02 mark)

.....
(ii) Why is a **buffer** necessary? (02 marks)

..... (a) What is **software suite**?
(02 marks)

.....
(b) (i) State any **two** features of desktop publishing software. (02 marks)

.....
(ii) What is **video conferencing**? (02 marks)

.....
(c) Describe as precisely as possible the use of the following features.

(i) **Radio button** (01 mark)

.....
(ii) **Check box** (01 mark)

.....

SECTION C (20 MARKS)

Attempt any one question in this question

22. Explain the positive and negative effects of using computers to the society.(20 marks)
23. A computer is a device which has hardware and software used to input, process, store and output data according to the instructions of the user. As a student of computer studies, explain any two hardware components involved at each of the four stages above.
24. (a) Outline the advantages of networking over standalone computers. (08 marks)
- (b) Using illustrative diagrams, describe the various form of LAN topologies.
- (12 marks)

Name..... Centre/Index No. /

Signature.....

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COMPUTER STUDIES

PAPER 1

Nov. /Dec. 2011

2 hours 30 minutes

UGANDA NATIONAL EXAMINATION BOARD

Uganda Certificate of Education

COMPUTER STUDIES

Paper 1

2 hours 30 minutes

INSTRUCTIONS TO CANDIDATES:

Write your name, signature, centre and index number in the spaces above.

*This paper consists of three sections **A**, **B**, and **C**.*

*Section **A** contains **20** compulsory objective-type questions. The correct alternative **A**, **B**, **C** or **D** against each question must be written in the box provided on the right hand side of each question.*

*Section **B** contains six structured questions. Attempt all the questions.*

*Answer to section **B must** be written in the space provided in the question paper.*

*Section **C** contains **three** essay questions. Answers to section **C must** be written in the answer booklets provided.*

For Examiner's Use only

MCQ	Q21	Q22	Q23	Q24	Q25	Q26	Q27	Q28	Q29	Total

SECTION A: (20 marks)

Attempt all questions in this section.

1. A device that converts images on a paper to electric signals that can be stored in a computer is a
A. Monitor.
B. Scanner. ☐
C. Plotter.
D. Printer
2. The binary code that is widely used in microcomputers is called
A. ASCII
B. EBCDIC
C. BCD ☐

- D. Unicode
3. A feature common to most application packages that contains icons or graphic presentation for commonly used commands is
A. Toolbar.
B. Menu.
C. Help. ☐
D. Dialog.
4. The asterisk software (*) in DOS is called a (n)
A. Extension.
B. Wildcard.
C. Filename. ☐
D. Substitute.
5. A hardware or software system used to restrict access to data and information on a network is called.....
A. Modem.
B. Netscape. ☐
C. ARPANET.
D. Firewall.
6. Which of the following is primary input device to computer?
A. Scanner.
B. Mouse. ☐
C. Keyboard.
D. Digital camera.
7. In a computer system, the system clock is very important because it
A. Is a storage device.
B. Shows the time and date. ☐
C. Determines data process speeds.
D. Turns off the computer after a long time.
8. The following are parts of the Central Processing Unit (CPU) except
A. ALU.
B. Control Unit.
C. Mother board. ☐
D. Registers.
9. In computer studies and information technology, a bus is a
A. Data bus damager.
B. Programming error. ☐
C. Malicious program.
D. Syntax error.
10. In spreadsheets, formulas and functions are used todata.
A. format
B. design ☐
C. edit
D. manipulate
11. Select one tool that controls the size, margins and orientation when working on a word document.
A. Page setup.
B. Print preview. ☐
C. Format.
D. Insert.
12. Fourth generation computing is characterized by the development and use of

- A. Transistors. ☐
- B. Micro processors.
- C. Artificial intelligence.
- D. Integrated circuits.
13. A query is used to ☐
- A. Enter and edit data.
- B. Automate the way database is used.
- C. Located specific records that meet specified criteria.
- D. Provide an alternative to tables of entry and view records.
14. Values such as.....are examples of logical data types. ☐
- A. true and false
- B. months and years
- C. object or graphics
- D. binary or numbers
15. Which of the following is an extension for an image filename? ☐
- A. .doc
- B. .exe
- C. .Jpeg
- D. .xls
16. A hardware on a network or communication system which receives, boosts and retransmits a signal to the next part of a system is a ☐
- A. Router.
- B. Hub.
- C. Gateway.
- D. Repeater.
17. A..... Or character is composed of eight..... ☐
- A. Kilobyte, megabytes
- B. Bit, bytes
- C. Megabyte, kilobyte
- D. Byte, bits
18. The graphics interface usually moves and points the cursor with the ☐
- A. Function key.
- B. Toggle key.
- C. Mouse.
- D. Num lock.
19. A spreadsheet that already includes the labels and formulas is called the ☐
- A. Template.
- B. Macro.
- C. Graphic.
- D. Worksheet.
20. The link of one or more computers together to communicate and share resources is called ☐
- A. Transmission.
- B. Networking.
- C. Packet switching.
- D. On-line browsing.

SECTION B: COMPULSORY (60 marks)

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

spaces provided.

21. (a) List **three** major characteristics of the third generation computers. (3 marks)

.....
.....
.....

(b) Explain the following terms in relation to computer usage. (2 marks)

(i) **Hacking**

.....
.....

(ii) **Computer crime** (02 marks)

.....
.....

(c) Mention **three** ways of preventing computer crime. (3 marks)

.....
.....
...

22. (a) (i) Define the term **word wrap** as applied to a word processor. (1 mark)

.....
.....
.....

(ii) State any **two** word processor applications. (2 marks)

.....
.....

(b) Supposing it is sports day at your school where there are four houses competing. Each house has three teams; Junior, Middle, Senior.

(i) Explain with **an illustration** how spreadsheet can be used to create an electronic score sheet for the teams. (4 marks)

.....
.....
.....
.....
.....

(ii) Describe how spreadsheet can be used to find the total of each team. (2 marks)

.....
.....

23. (a) Give **one** function of each of the following keys (buttons) on the computer keyboard.

(5 marks)

(i) **Backspace key**

.....
.....

(ii) **Caps lock key**

.....
.....

(iii) **Delete key**

.....
.....
(iv) **Space bar**
.....
.....

.....
(v) **Shift bar**
.....
.....

(b) (i) What is **booting** in relation to computers? (1 mark)

.....
(ii) Distinguish between **cold booting** and **warm booting**. (4 marks)

.....
.....
.....
.....
24. (a) Define the following terms.

(i) **Web page** (1 mark)

.....
(ii) **Website** (1 mark)

.....
(b) Explain the functions of the following:

(i) **IP address** (2 marks)

.....
(ii) **ISP** (2 marks)

.....
(c) (i) Mention any **two** factors considered in choosing a network topology. (2 marks)

.....
(ii) Identify **one** advantage and disadvantage of a star network topology. (2 marks)

.....
25. (a) State any **two** factors to consider when designing a database. (2 marks)

.....
(b) What is a **field** in relation to database? (01 mark)

.....
(c) A property owner uses a database to store data about houses he sells. The table below shows part of the database.

REFERENCEN NUMBER	AIR CONDITIONER	GARDEN	NUMBER OF BED ROOM	PRICE MILLION(shs)
----------------------	--------------------	--------	-----------------------	-----------------------

L2132	Y	N	3	170
L4323	N	Y	2	130
L1232	N	Y	3	158
L4321	N	N	4	210
L5643	Y	Y	4	335
L3423	N	Y	5	400
L2342	Y	Y	4	285

(i) The records shown are to be sorted in ascending order of price. What will be the reference number of the first record in the database after it has been sorted? (01 mark)

(ii) Give the names of the fields that contain Boolean data type. (02 marks)

(iii) Identify the field type of the reference number field. (01 mark)

(iv) Give **two** validation checks that could be carried out on the reference number field. (02 marks)

(v) Which field should be the **primary key** of the database table? (01 mark)

26. (a) Differentiate between system software and application software. (i) **System Software** (02 marks)

(ii) **Application Software** (02 marks)

(b) Give any **two** functions of an **operating system** (02 marks)

(c)(i) What is a **computer virus**? (02 marks)

(ii) Name any **two** antivirus software. (02 marks)

SECTION C: (20 marks)
Choose one number from this section

27. (a) Explain the meaning of **Utility programs**. (02 marks)
(b) Describe any **six Utilities**. (18 marks)

28. Outline **ten** areas in which computers can be applied in society (20 marks)

29. Word processors have become part of everyday life. Describe ten typical functions of a word processor.
(20 marks)

Name..... Centre/Index No. /

Signature.....

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COMPUTER

STUDIES

PAPER 1

Nov. /Dec. 2012

2 hours 30 minutes

UGANDA NATIONAL EXAMINATION BOARD

Uganda Certificate of Education

COMPUTER STUDIES

Paper 1

2 hours 30 minutes

INSTRUCTIONS TO CANDIDATES:

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on the right hand side of each question.

Section **B** contains **six compulsory** structured questions. Attempt all the questions.

Answer to section **B must** be written in the space provided in the question paper.

Section **C** contains **three** essay questions. Answers to section **C must** be written in the answer booklets provided.

For Examiner's Use only

MCQ	Q21	Q22	Q23	Q24	Q25	Q26	Q27	Q28	Q29	Total

SECTION A: (20 marks)

Attempt **all** questions in this section.

1. In which computer classification does a Personal Digital Assistant (PDA) belong
A. Size
B. Purpose
C. Process
D. Processor power
2. Which of the following is associated with visual slide, animated shows and overheads?
A. Database
B. Spreadsheets
C. Graphics
D. Presentation
3. Ais a software that provides an interface between the user and the internet
A. Gopher
B. Server
C. Web browser
D. Web page
4. The.....is responsible for the mathematical and comparison sequences in the CPU
A. Main memory
B. Control unit
C. Arithmetic and logic unit
D. Micro processor
5. The scan disk process is categorized as a(n)
A. Application software
B. Operating system
C. Programming language
D. Utility program

6. Calculate the number of bits in 16 bytes
A. 8
B. 2
C. 64
D. 128 ☐
7. What software can be used to browse the internet?
A. Netscape
B. Ms Access
C. Power point
D. FTP ☐
8. A collection of related data items that DBMs treat as a unit is a.....
A. Record
B. File
C. Field
D. Folder ☐
9. The introduction of the first super computers is a characteristic of.....
A. First generation
B. Second generation
C. Fourth generation
D. Fifth generation ☐
10. The use of functions to manipulate data is facility of.....
A. Database
B. Presentation
C. Spreadsheets
D. Communication ☐
11. A Uniform Resource Locator is used to.....
A. Browse the internet
B. Find a particular website
C. Download information
D. Design website on the internet ☐
12. A(n).....is an example of wireless type of transmission media
A. Twisted pair
B. Co-axial
C. Microwave
D. Optical fibre ☐
13. The ability of a computer to run many jobs at the same time is called
A. Multitasking
B. Flexibility
C. Versatility
D. Diligence ☐
14. A flash memory is an example of a(n).....device
A. Processing
B. Storage
C. Input
D. Output ☐
15. What is an operating system?
A. The part of hardware that operates input and output devices
B. The part of hardware that operates the mouse and the window on the monitor
C. System software that manages computer system resources
D. A section of software that must be part of every program ☐
16. Which of the following programs are not typically included in a Microsoft office suit

- A. Presentation programs
 - B. Financial programs
 - C. Spreadsheets programs ☐
 - D. Database programs
17. Which one of the following devices produces a soft copy as its output
- A. Display screen
 - B. Plotter
 - C. Robot ☐
 - D. Laser printer
18. If you want to “window shop” on the internet, you would visit a..... ☐
- A. Chat group
 - B. Gopher
 - C. Telnet
 - D. Cyber café
19. Small pictures that represent commands in a graphics interface are..... ☐
- A. Icons
 - B. Cursors
 - C. Symbols
 - D. Graphics
20. The computer ethical issue that deals with the responsibility of controlling the availability and user of data is.....? ☐
- A. Access
 - B. Ownership
 - C. Accuracy
 - D. Privacy

SECTION B:(60 marks)

*Attempt **all** the questions in this section*

*All the working **must** be done in the space provided*

21. (a) (i) What is **word processing**? (02 marks)

.....

- (ii) Mention **three** examples of word processing software (03 marks)

.....

- (b) Describe **three** ways in which personal data stored on the computer can be misused (03 marks)

.....

 ...

- (c) State **two** ways of preventing misuse of personal data stored on a computer (02 marks)

.....

22. (a) Distinguish between **application programs** and **system software** (02 marks)

.....

- (b) Give **two** examples of application programs (02 marks)

.....

 (d) System software is normally grouped into the categories. State the **three** categories (03 marks)

...
 23.(a) Define a **computer network**? (02 marks)

.....
 (b) Distinguish between a **LAN** and a **WAN** (02 marks)

.....
 (c) Name any **three** types of network topologies (03 marks)

...
 (e) State any **three** requirements for connecting a computer to internet (03 marks)

...
 24. A car show room owners uses a spreadsheet to store data about cars he sells. The table below shows the part of the spreadsheet.

	A	B	C	D	E
1	Registration Number	Previous owners	Buying price	Selling price	Profit
2					
3					
4	KUP 315	1	£ 3900	£ 4400	£ 500
5	ZAS 546	2	£ 3500	£ 3900	£ 400
6	TRU 234	1		£ 3450	£ 750
7	BWA456	4	£ 1950	£ 2200	£ 250
8	Average			£ 3487.5	
9					

(a) How many columns are there in this part of the spreadsheet? (01 mark)

(b) Circle one cell on the spreadsheet that contains text data (01 mark)

(c) What data type was in cell D6 (01 mark)

(d) What type of alignment is being used in cell B4? (01 mark)

(e) The owner of the car show room wants to calculate the total profit of these four cars. What formula should he type in cell E9? (01 mark)

(f) Write down the formula which was used to obtain the figure in cell **E4**
(01 mark)

.....
(g) (i) What formula would be used to obtain the entry for cell **C6**?
(01 mark)

.....
(ii) Write the entry for the cell **C6**
(01 mark)

.....
(h) (i) What formula can be used to calculate the **average** of the buying price?
(01 mark)

.....
(ii) What is the average price in **C8**?
(01 mark)

.....
25. (a) "The storage capacity of my computer is **25GB**" Explain the statement
(02 marks)

.....
(b) Mention **two** advantages hard disk has over flash disk (02 marks)

.....
(c) Why are computer games and other programs commonly supplied on CD-ROMs (Give **two** reasons) (02 marks)

.....
(d) (i) What are
• **Impact printers** (01 mark)

.....
• **Laser printers** (01 mark)

.....
(ii) Give **one** advantage and **one** disadvantage of a laser printer over a dot matrix printer.
(02 marks)

.....
26. (a) Differentiate **digital computers** from **analog computers**. (02 marks)

.....
(b) List any **four** characteristics of minicomputers (04 marks)

.....
(c)(i) Write the computer related abbreviation "**PC**" in full (01 mark)

.....
(ii) Give any **three** advantages of PC's over mini-computers (03 marks)
.....
.....

...
SECTION C: (20 marks)

Choose one number from this section

27. Why is it important for a school to have a **website**? (20 marks)
28. Identify the **health hazards** that are associated with the use of computers. (20 marks)
29. Describe any **five** devices used for the storage of data on a computer. (20 marks)

Candidate's Name:

.....

Signature:

(Do not write your school/centre Name or Number any where on this booklet).

COMPUTER

STUDIES

PAPER 1

Oct./Nov.2013

2 hours 30 minutes

UGANDA NATIONAL EXAMINATION BOARD

Uganda Certificate of Education

COMPUTER STUDIES

Paper 1

2 hours 30 minutes

INSTRUCTIONS TO CANDIDATES:

Write your name, signature, random number and personal number in the spaces above.

*This paper consists of three sections **A, B** and **C**.*

*Section **A** contains **20 compulsory** objective-type questions. The correct alternative **A, B, C** or **D** against each question must be written in the box provided on the right hand side of each question.*

*Section **B** contains **six compulsory** structured questions. Attempt all questions.*

*Answer to section **B must** be written in the space provided in the question paper.*

*Section **C** contains **three** essay questions. Answers to section **C must** be written in the answer booklets provided.*

For Examiner's Use only

MCQ	Q21	Q22	Q23	Q24	Q25	Q26	Q27	Q28	Q29	Total

SECTION A :(20 marks)

*Attempt **all** questions in this section.*

1. RAM is

- A. Permanent memory
- B. Programmable memory
- C. Read only memory
- D. Working memory

☐

2. Which of the following is not a purpose of hyperlink?

- A. Closing the current web browser
- B. Jumping to a new web page
- C. Opening an e-mail program
- D. Jumping to another position on the same web page

☐

3. Sound stored and produced by a computer is.....

- A. Animation
- B. Video
- C. Synchronization
- D. Audio

☐

4. The invention of the..... defines the second generation.

- A. Magnetic core
- B. Transistor
- C. Relay
- D. Vacuum tubes

☐

5. The application that can link audio and video into one form is.....

- A. Word processor
- B. Multimedia
- C. Spreadsheets
- D. Groupware

☐

6. The..... is an electrical path for data to flow from one point to another in a circuit.

- A. System clock
- B. Buffer
- C. Bus
- D. ALU

☐

7. A computer professional whose basic work is to write software code or instructions is called a

- A. Programmer
- B. System analyst
- C. Web designer
- D. System manager

☐

8. The internet service that enables exchange of text messages in real-time is.....

- A. E-mail
- B. Telnet
- C. Chat
- D. FTP

☐

9. Data in a computer is stored in the.....format.

- A. Character
- B. Text
- C. Digital
- D. Multimedia

☐

10. Spreadsheets are mainly used to perform.....

- A. Calculations
- B. What-else analysis
- C. Functions
- D. What-if analysis

☐

11. A web browser is an example of.....software

- A. Utility
- B. Programming language
- C. System
- D. Application

☐

12. The slider sorter command is associated with.....programs.

- A. Word processing
- B. Spreadsheets
- C. Presentation

☐

- D. Database
13. The interconnection of two or more computers to enable communication is called.....
- A. Protocols
 - B. Processing
 - C. Browsing
 - D. Networking
14. A unique field used to identify a record in a database is called a
- A. Field key
 - B. Private key
 - C. Primary key
 - D. Record key
15. Off-shelf software are examples of
- A. High level languages
 - B. Application software
 - C. Utility software
 - D. Operating system
16. Which device specializes in producing line drawing as an output?
- A. Monitor
 - B. Laser printer
 - C. Plotter
 - D. Dot-matrix printer
17. The word processing term similar to a dictionary is called a.....
- A. Mail merger
 - B. Spell checker
 - C. Word wrap
 - D. Word scanner
18. The..... is an example of system software that uses a command line interface.
- A. DOS
 - B. Macintosh
 - C. Windows
 - D. Novel
19. The..... Are instructions that direct the Central Processing Unit (CPU) what to do when the computer is switched on.
- A. Disk memory
 - B. Applications
 - C. Firmware
 - D. Control unit
20. In database management systems a collection of information about one stem is referred to as a
- A. Record
 - B. File
 - C. Field
 - D. Folder

☐☐☐☐☐☐☐☐

SECTION B :(60 MARKS)

*Attempt **all** questions in this section.*

*All the working **must** be done in the spaces provided*

21. (a) Explain the term **spreadsheets** as used in computer studies.
(02 marks)

.....
.....

(b) Name **three** types of data that can be placed in a spreadsheet cell.

(03 marks)

(i)

(ii)

(iii)

(c) What is the use of a formula in a spreadsheet?

(01 mark)

.....
.....

(d) Describe with illustrations, how a shopkeeper can use spreadsheets to keep records of her/his business.

(04 marks)

.....
.....
.....
.....
.....

22. (a) List **four** advantages of a hard disk over a compact disk (**CD**)
(04 marks)

(i)

(ii)

(iii)

(iv)

(b) Describe the following:

(i) **Flash memory**

(02 marks)

.....
.....

(ii) **Optical Character Recognition**

(02 marks)

.....
.....

(iii) **Laser jet printer**

(02 marks)

.....
.....

23. (a) What is **computer communication**?

(02 marks)

.....
.....

(ii) State any **two** advantages of using e-mail.

(02 marks)

.....
.....

(b) Explain the functions of the following:

(i) **Web server**

(02 marks)

.....
.....
(ii) **FTP**
(02 marks)
.....

.....
.....
(iii) **HTTP** (02
marks)
.....

-
.....
24. A senior four class in Naluwelere S.S. has formed a club. A file named CLUBMATES is to be kept by the secretary of the club. The design of CLUBMATES has the following fields: NAME, MEMBERSHIP-NUMBER, SEX, AGE and TELEPHONE.
(a) Suggest a primary key for CLUBMATES. Explain why it is chosen as the primary key.
(03 marks)
.....
.....

.....
(b) If the longest name in a class is Sangalyambogo, suggest the minimum field length.
(01 mark)
.....

.....
(c) Why is it not a good idea to use the field AGE? Suggest an appropriate field name and type.
(03 marks)
.....

Reason.....

Field name and type

.....
(d) Suggest appropriate data types for the following fields.
(03 marks)
.....

(i) **MEMBERSHIP-NUMBER**.....

(ii) **SEX**.....

(iii) **TELEPHONE**.....

- 25.** (a) Give any **two** ways of classifying computers.
(02 marks)
.....
.....

.....
(b) Differentiate between the following terms:

(i) **Analog** and **digital** computers
(02 marks)
.....

.....
(ii) **Mainframe** computers and **Micro-computers**.
(03 marks)
.....
.....
.....
.....

.....
(c) List any **three** types of micro-computers.
.....

(03 marks)

- (i).....
- (ii).....
- (iii).....

26. (a) State any **four** functions of operating systems.
(04 marks)

- (i).....
- (ii).....
- (iii).....
- (iv).....

(b) List any **two** types of operating systems commonly used in computers.

(02 marks)

- (i).....
- (ii).....

(c)(i) What is a **programming language**?

(02 marks)

.....

.....
(ii) Differentiate between **machine language** and **high level languages**.

(02 marks)

.....

.....

SECTION C: (20 marks)

*Answer any **one** question from this section.*

Answers are to be done in the answer booklet provided.

27. (a) Describe any **four** ways in which computer crimes are committed.

(b) Explain the ways of safeguarding against computer crimes.
(08 marks)

28. Describe the nature and features of the **four** computer generations

(20 marks)

29. Some people believe that using computers will cause unemployment whilst others believe that the economic survival of a society depends on making even greater use of the computers.

30. Describe how computers can;

(a) cause unemployment.

(10 marks)

(b) be the basis for economic survival

(10 marks)