

UMMUL QURA HIGH SCHOOL
AROWONA BUS-STOP, AMULOKO-AKANRAN ROAD, IBADAN.
2020/2021 MOCK EXAMINATION

SUBJECT: ICT
CLASS: SS 3

DURATION : 3:00hrs
INSTRUCTION: Attempt section A and B

SECTION A: OBJECTIVES

1. Charles Babbage was *first* to
 - A. Invent slide rule
 - B. Invent analytical engine
 - C. Make census machine
 - D. Make use of the punched card
2. The computer hardware is made up of system unit *and*
 - A. Motherboard
 - B. Peripheral
 - C. Control unit
 - D. Central processing unit
3. If the *output* signal of any logic gate is fed into an *inverter*, the results is
 - A. NOT gate
 - B. NOR gate
 - C. The inverse of the output signal
 - D. The same as the output signal

Figure 1 is a logic gate. Use it to answer questions **4 to 6**

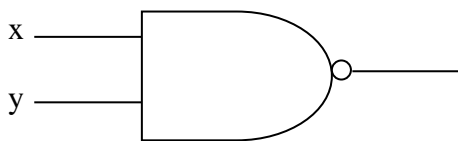


Figure 1


4. **Figure 1** represents
 - A. a NOT gate
 - B. a NAND gate
 - C. an AND gate
 - D. an OR gate
5. X, Y and Z respectively, represents
 - A. Input, output and input signals
 - B. Output, output and input signals
 - C. output, input and output signals
 - D. input, input and output signals
6. When signal X = 0, and Y = 1, signal **Z** is
 - A. 0.1
 - B. 0
 - C. 1
 - D. 11
7. The *first stage* in program development is problem
 - A. Analysis
 - B. Definition
 - C. Solving
 - D. Testing
8. An *example* of a programming language that uses mnemonic codes is
 - A. Assembly program
 - B. BASIC program
 - C. COBOL program
 - D. FORTRAN program
9. The *line segment* that describes the contents of the message when sending an e-mail is
 - A. Cc.
 - B. Content
 - C. Subject
 - D. To
10. The *colour palette* in corel draw allows the user to
 - A. Arrange colour
 - B. Draw in colour
 - C. Pick colour tool

- D. Choose different pre-set colour palettes
11. When browsing on the internet, a possible reason for the message “*page not found*” is that
- The weather is hot
 - The web browser is fast
 - Multiple web pages are loading at the same time
 - A connection between the client and server has been lost
12. Which of the following is a *valid* e-mail address?
- www.itbeginswithu.org
 - waeonline@yahoo.co.uk
 - www.waeonline.org
 - www.fine.gov.ng
13. In word processing, an efficient way to move the *second* paragraph and place it after the *fourth* paragraph is
- Copy and paste
 - Copy, cut and paste
 - Cut and paste
 - Cut, copy and paste
14. The computer keyboard key(s) that a user presses to move to the beginning of a *client line* of text is/are the
- Enter key
 - Home key
 - Ctrl + b key
 - Ctrl + Home key
15. The shortcut command used in *restarting* a computer is
- Ctrl + S
 - Ctrl + O
 - Del + Alt + S
 - Alt + Ctrl + Del
16. The part of the computer that holds the data and programs for **CPU** processing is the
- Address
 - Register
 - Random access memory
 - Read only memory
17. Which of the following statements is *true* of encryption? It
- Provides complete privacy
 - Provides security of varying reliability
 - Make messages unreadable by the computer
 - Permits an individual to have access to another person’s message
18. Which of the following is the **main** advantage of intellectual property right?
- Discouragement of sharing
 - Discovery of brilliant persons
 - Encouragement of innovations
 - Maximization of profit
19. 9_{10} is equivalent to X_8 , where **X** is
- 7
 - 10
 - 11
 - 12
20. Which of the following is *not* a type of wireless transmission?
- Bluetooth
 - Fibre optic
 - Infrared
 - Wifi
21. An internet-based system that allows people of *different* geographical locations to have in-person meeting is known as
- Voice messaging system

- B. Video conferencing system
 - C. Online mailing system
 - D. Fax system
22. In word processing application, the symbols **B**, **I** and **U** are commonly used buttons found on the
- A. Standard toolbar
 - B. Menu bar
 - C. Formatting toolbar
 - D. Drawing toolbar
23. Which of these formulas will **not** be executed in MS Excel
- A. =SUM(examscore)
 - B. =SUM(Examscore)-12
 - C. =SUM(exam_score)*8
 - D. =SUM(exam score)/3
24. During presentation, **slide transition** can be activated by
- A. Right-click
 - B. Mouse drag
 - C. Mouse click
 - D. Double-click
25. Which of the following is used to **retrieve** specific information from database tables?
- A. Index
 - B. Query
 - C. Report
 - D. Table
26. What file organization would require that all the **five (5)** records be read before the 6th record is written?
- A. Direct-access file
 - B. Index sequential file
 - C. Random access file
 - D. Sequential access file
27. In Microsoft Excel, a new work space is created with the name _____ by **default**
- A. Book 1
 - B. Excel 1
 - C. Mybook 1
 - D. Sheet 1
28. The _____ displays the content of **active cell** in Microsoft Excel
- A. Formular bar
 - B. Name box
 - C. Task pane
 - D. Title bar
29. The **file extension** of a MS-Word document in Office 2007 is
- A. .doc
 - B. .pdf
 - C. .xls
 - D. .txt
30. The processing steps in a **flowchart** are represented by _____ symbol
- A. arrow
 - B. circle
 - C. rectangle
 - D. parallelogram
31. Which of the following tasks does not require large computer memory?
- A. Amination
 - B. Graphic
 - C. Imaging
 - D. Typing
32. 10 **nibbles** is equivalent to _____
- A. 10
 - B. 20
 - C. 40
 - D. 50
33. The spreadsheet entry error “####” means that the
- A. Cell contains a number
 - B. Cell is not properly formatted
 - C. Entry is wrong
 - D. Space in the cell is insufficient
34. A set of wire used as communication **path** is called

- A. Accumulator
 - B. Adder
 - C. Bus
 - D. Control unit
35. The following are objects of database **except**
- A. Forms
 - B. Macros
 - C. Reports
 - D. None of the mentioned
36. The use of electronic messaging systems to send **unsolicited** messages is known as
- A. Advertising
 - B. Hacking
 - C. Spamming
 - D. Testing
37. The **period** during which a job is processed by a computer is called _____ time
- A. Absolute
 - B. Delay
 - C. Execution
 - D. Waiting
38. A school has sought for advice on the best ways to guard its computers against viruses. Which of the following would you **not** recommend?
- A. Data backup
 - B. Installing an anti-virus
 - C. Employing a data analyst
 - D. Scanning external storage devices for viruses before use
39. Which of the following **represents** features of a computer?
- I. It is constructed from electronics components
 - II. It has self regeneration capability
 - III. It has facility for storage of data and programs
 - IV. It has provision for input and output data
- A. I, II and III only
 - B. I, II and IV only
 - C. I, III and IV only
 - D. II, III and IV only
40. Arrange in a **hierarchical** order by date, the following inventions:
- I. Slide rule
 - II. Pascaline
 - III. Analytical engine
 - IV. Difference engine
- A. I, II, IV and III
 - B. III, IV, I and II
 - C. III, IV, II and I
 - D. I, II, III and IV
41. The **smallest** unit of information representation which is addressable on the computer memory is
- A. 1 bit
 - B. 2 bits
 - C. 4 bits
 - D. 8 bits
42. The similarities **between main memory and registers** is that they are:
- I. Volatile
 - II. Under the direct control of the user
 - III. Protected by the system unit
 - IV. For system use only
- A. I, II and IV only
 - B. I, III and IV only

- C. II, III and IV only
D. I, II, III and IV
43. A **subroutine** is called in a **flowchart** through the use of
A. Data
B. Predefined process
C. Process
D. Terminator
44. A suitable **BASIC** notation for the expression mc^2 is
A. $m * c ^2$
B. $m * c * 2$
C. $m * c ^2$
D. $m * c * ^2$
- Use the **BASIC** program below to answer questions 45 to 47.
- ```
10 LET K = 2
20 LET L = 9
30 LET SUM = 0
40 FOR J = K TO STEP 2
50 SUM = SUM + J^2
60 PRINT "ANSWER =", SUM
70 NEXT J
80 END
```
45. How many times will the statement **lines 50 and 60** be repeated?  
A. 2  
B. 3  
C. 4  
D. 5
46. Which of the following **best** represents the sequence of the output from the program?  
A. 2, 4  
B. 4, 20, 36  
C. 4, 16, 36, 64  
D. 4, 20, 56, 120
47. The **last output** that will be displayed by the program is  
A. 20  
B. 36  
C. 64  
D. 120
48. The first **four steps** required to open an email account include:  
I. Click on 'Create my account';  
II. Go to home page of the service provider  
III. Click create 'New Account';  
IV. Click on 'Mail';  
A. I, II, IV and III  
B. II, I, IV and III  
C. II, IV, III and I  
D. IV, II, I and III
49. The **two** main components of a radio communication system are  
A. Transmitter and terminal  
B. Receiver and terminal  
C. Transmitter and receiver  
D. Transmitter and terminator
50. Which of the following can a traveler who finds himself in a **new environment** rely on for direction to his final destination?  
A. DNS  
B. GPRS  
C. GPS  
D. TCP
51. Which of the following is **not** a network cable?  
A. Coaxial  
B. Telephone  
C. Fibre optic  
D. Twisted pair
52. A rectangular image consisting of **black lines and white spaces** representing data which can be optically read is called

- A. Barcode  
B. Decoder  
C. Mnemonic  
D. Pseudocode
53. What will the following **BASIC** statement produce?  
PRINT "Afrikom Computer School"  
A. A blank on-screen message  
B. An error indicating on the screen  
C. Afrikom computer school displayed on the screen  
D. Afrikom computer school printed on paper
54. Which of the following options **best** describes the arrangement of file structure?  
I. File  
II. Field  
III. Character  
IV. Record  
A. III, II, I and IV  
B. II, III, I and IV  
C. III, II, IV and I  
D. II, III, IV and I
55. Which of the following is a **permanent deletion** of a folder in windows?  
A. Ctrl + Del  
B. Del  
C. Del + Alt  
D. Shift + Del
56. In **Corel Draw** tool box, the  tool is used to  
A. Choose full sets of shapes  
B. draw curves in preview mode  
C. draw symmetrical polygons and stars  
D. select and rotate objects
57. The \_\_\_\_\_ are used to **connect** cables together or to other devices  
A. RJ 45  
B. Power cables  
C. Connectors  
D. Bus
58. The **CLS** command is used for  
A. Clearing the screen  
B. Cleaning the screen  
C. Printing the screen  
D. None of the mentioned
59. Subtract **3B** from **A83** in base 16  
A.  $453_{16}$   
B.  $542_{16}$   
C.  $648_{16}$   
D.  $653_{16}$
60. Which of the following is **not** an effect of computer virus? It  
A. Distorts the computer screen  
B. Interfers with computer operation  
C. Damages the computer  
D. Corrupts the computer

### **SECTION B: THEORY PART**

INSTRUCTION: ANSWER ANY **FOUR** QUESTIONS

- 1(a). Define the term **single user** operating system and state **two** examples
- (b)i. State the difference between **multi-tasking and multi-processing**  
ii. Outline **three** similarities and differences between a word processor and spreadsheet application
- (c). Mention **two** examples of the following operators in **BASIC** programming language

- i. Arithmetic operators
  - ii. Boolean operators
- 2(a)i. Define **Network** topology.
- ii. Identify any **four** network topology
- (b). State **two** difference between the following.
- i. Web server and web browser
  - ii. Hub and switch
- (c). Briefly explain any **five** of the following terms:
- i. Intranet
  - ii. URL
  - iii. download
  - iv. Cache
  - v. Bandwidth
  - vi. IP
  - vii. Homepage
  - viii. Firewall
- 3(a)i. Mention **four** reasons why it is important to always backup documents.
- ii. Draw a truth table of a **NAND** operation and its logic representation.
- (b). Give **two** examples of audio/visual devices.
- (c)i. List **four** features of Burrough's machine.
- ii. Perform this arithmetic operation:  $25_8 + 103_8$
  - iii. Convert **19FDE**<sub>16</sub> to a decimal number.
- 4(a). Mrs. **Zayd** has a company that specializes in the production of beverages with headquarters in Abuja. He intends to monitor the sales and transactions in the company's branches across Nigeria as well as interact with his customers.
- (a). Through what platform can Mr. **Zayd** achieve his intentions?
- (b). Which of computer professional should Mr. **Zayd** hire to design the platform in **3(a)**?
- (c). State two software packages needed to create the platform for Mr. **Zayd**.
- (d). If Mr. **Zayd** decides to connect all the offices within the headquarters in Abuja in single network,
- i. What **type** of **network** is appropriate?
  - ii. Mention **three** reasons to support his decision
- (e). Mention **two** transmission media that can be used to implement the network in **4(d)(i)**.
- 5(a). Draw a **pictorial** representation of **mesh network** topology.
- (b)i. Describe **four** factors that affect the speed of data transfer
- ii. Mention **four** hardware equipment and two software facilities needed to run a LAN
- (c). Explain **four** medium of wireless data transfer

- 6(a). Distinguish between *flow chart* and *algorithm*
- (b). State *three* general rules of drawing a flow chart
- (c). A customer's *transaction* type (*T*) in a bank can be *deposit (D)* and *withdrawal (W)*. Suppose a bank uses the following step-by-step approach to update customer's balance (**B**):

Accept T and Amount

If T equals D;

Then add Amount to B

Otherwise subtract Amount from B.

Draw a *flowchart* to represent the steps.



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SUBJECT: ICT PRACTICAL  
CLASS: SS 3

DURATION : 2hours  
INSTRUCTION: Attempt two questions

**PRACTICAL**

1(a). Using a **Word Processor**, typeset the following passage with 12 point Tahoma font:

Elements of Data Processing

The main purpose of this subject is to provide the required knowledge and business programming skills for you to effectively use data processing system and manage the data processing department of an organization.

Basic concepts of data processing , required computer systems, personnel, tools for developing data processing application and basic programming skills are also covered in this study material.

This will be achieved through the following:

Aims

Students should be able to:

explain data processing concepts, systems, personnel and tools;

describe data processing techniques;

acquire skills for developing, implementing and managing data processing systems.

(b). **Format** the passage as stated below:

(i). Heading of the page:

apply a 16 point font-size in upper case form;

bold, centralize and underline it.

(ii). Body of the passage:

change the line spacing to 1.5;

align, justify.

(iii). Sub-heading of the passage:

bold and italicize;

use text highlight colour Gray 50%.

(iv). Create a ***bulleted list*** type of your choice for the text under “***Aim***” and format as follows:

explain the data processing concepts, systems, personnel and tools;

acquire skills for developing, implementing and managing data processing systems;

describe data processing techniques.

(c). Change the page orientation to ***landscape***

(d). Using the header tool, insert your full **name** and **index number**.

(e). Save the work as **PROCESSING** in the folder created and print.

2(a). Use ***Microsoft Excel*** to perform the task.

Eight friends had ***coffee, sausages and apples*** for the breakfast. Four of them took four ***sausages*** each, three took two ***sausages*** each and the last person took only one ***sausage***. In addition, they all took a cup of ***coffee*** and two ***apples*** each. ***Coffee, sausages and apples*** cost 200, 500 and 100 naira respectively.

#### **APPLICATION:**

(i). Construct a ***worksheet*** showing the above information by naming the **rows** and **column** as 1,2,3- -9 and A,B,C,D,E respectively.

(ii). The first row should accommodate the sequence (headings):

| NAME | COFFEE/COST | SAUSAGE/COST | APPLE/COST | TOTAL AMOUNT |
|------|-------------|--------------|------------|--------------|
|------|-------------|--------------|------------|--------------|

(iii). Key/type ***eight*** different names of your choice.

(iv). Supply the ***units*** for the statement above randomly in the ***columns***.

(v). Calculate the ***total amount spent*** by each person.

State the *cell references* you would use to obtain the following and give its corresponding results.

(vi). Total amount spent by the *first* person.

(vii). Total number of sausages and apples taken by the *fourth* person.

(viii). Total number of cup of coffee and sausages taken by the *sixth* person.

(ix). Print out your *hard copy*.

2(b). Use computer system to answer the following questions.

(i). State *two* precautions taken while performing the task in **(2A)**.

(ii). Explain *why* a value such as 92394391289 may be displayed as ##### when typed in a cell on a spreadsheet.

(iii). State how the problem in **2B(ii)** can be corrected.

(iv). Name any *two* types of *graphs* that are supported by spreadsheet application.

3(a). Using a *Presentation Program*, create **four** blank slides with a suitable design template.

insert a footer showing your full **name** and **index number** with font size 20 points.

(b). Prepare **each** slide as follows.

**SLIDE 1:**

(i). Type *VEGETABLE* as the title and format it as follows:

Font: type – Arial; style – bold; size – 96; colour - blue

(ii). Insert a logo from clip art.

**SLIDE 2:**

(i). Type the *sub-title* as “*Health Advantages of vegetables*” and format it as follows:

Font : type – Arial Black; size – 44.

(ii). Insert the following content :

Vegetables enhance your body wellness. Here are some of the potential health benefits.

1. Reduce the risk of heart diseases including heart attack and stroke.
2. Protect against certain type of cancer
3. Reduce the risk of developing kidney stones.

**SLIDE 3:**

(i). Types *sub-title* as “**STATISTICS**”.

(ii). **Insert** the following table:

| Vegetable type    | % Nutrient |
|-------------------|------------|
| Orange vegetable  | 15         |
| Starchy vegetable | 30         |
| Other vegetables  | 55         |

**SLIDE 4:**

(i). Type *sub-title* as “**Nutrient Chart**”.

(ii). Create a *pie-chart* using the tabulated data in **SLIDE 3**.

(c). Save the work as **CHART** in the folder created and *print*.