Mock Examination

COMPUTING 2 & 1

Essay and Objective

2 hours

2 & 1

Name:.....

Index Number:.....

Signature:.....

Date of Examination:.....

SUPERB MOCK

Basic Education Certificate Examination

COMPUTING 2 & 1

2 hours

*Do **not** open this booklet until you are told to do so. While you are waiting, read and observe the following instructions carefully. Write your **name, index number, signature** and **date of examination** in **ink** in the spaces provided above.*

*This booklet consists of two Papers: **A** and **B**. Answer Paper **2** which comes first, in your answer booklet and Paper **1** on your Objective Test answer sheet. Paper 2 will last **1** hour **15** minutes. Do **not** start Paper 1 until you are told to do so. Paper **1** will last **45** minutes. At the end of the examination, submit the **entire** question paper to the invigilator.*

*Any candidate who tears off any part of this question paper will be **severely** penalized.*

*Whether you answer all the questions in this paper **or** not, hand in the **entire** question paper to the invigilator.*

Credit will be given for clarity of expression and orderly presentation of material.

For Examiner's Use Only	
QUESTION NUMBER	MARK
TOTAL	

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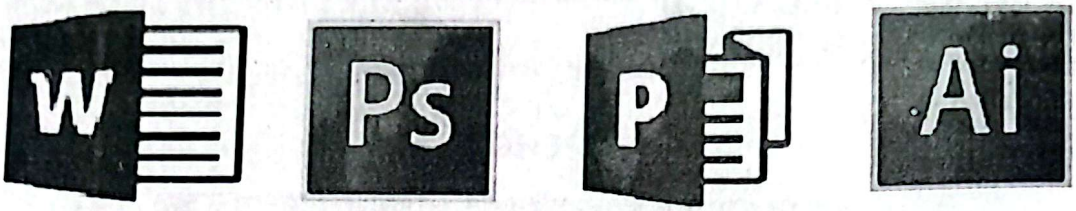
SECTION A
[24 Marks]
Answer Question 1 [Compulsory]

1. Listed below are group icons of popular application software for different unique purposes. Study them carefully and use them to answer the questions that follow



A B C D

(a) (i) Differentiate between system software and application software. [2 marks]

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(ii) Identify the name of each icon labelled from **A-D**. [4 Marks]

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(iii) Describe two functions of each of the icons named in (ii) above. [8 Marks]

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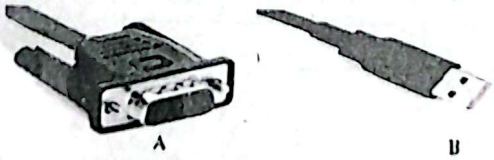
(b) Cables are used to connect devices in the computer system. Study the cables below carefully and answer the questions that follow.



A B

(i) Identify the name of each cable above. [2 marks]

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(ii) Mention one device that connects to the system unit through each of the cables. [2 marks]

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(iii) Describe one significant of using cable in computer system. [2 marks]

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(iv) Name the type of port through which each of the cables above is connected to [2 marks]

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(v) Mention any two other cables that are connected to the system unit. [2 marks]

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SECTION B

[36 Marks]

*Answer **three** questions **only** from this section.*

2. (a) (i) Explain spam as used in emailing. [1 mark]

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(ii) Mention the two main components that are required when composing a new e-mail message. [2 marks]

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(b) (i) Explain the term editing as used in Word Processing. [2 marks]

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(ii) Describe the functions of the following tools in Word Processing. [2 marks]

(α) Word wrap

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(β) Insertion point

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(c) (i) Outline two forms of disabilities in the community. [1 mark]

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(ii) Identify and describe the benefit of each of the technology devices below to a named disabled friend. [2 marks]

A

B

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(d) Discuss two negative effects of depending solely on AI software for assignment as a candidate. [2 marks]

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3. (a) Your aunt's friends on social media have been calling her with different complaints. While some are asking her to stop demanding such a token of money, others are also posting messages full of immoral contents. After careful investigation, it was later discovered that someone else has been secretly using your aunt's account for such disgraceful acts.

(i) Identify and explain the technology term used for the practice in the context above. [1 mark]

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(ii) Suggest two measures to put in place to avoid your aunt's situation. [2 marks]

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(b) (i) Describe the function of each of the buttons below in a browser. [2 marks]

(α) search button:

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(β) refresh button:

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(ii) Identify two ways of locating information on the Internet. [2 marks]

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(c) (i) Explain cloud computing. [1 mark]

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(ii) Name the cloud storage below and state the company that provides each of the storage services. [2 marks]

(d) In what two ways are automatic input devices more preferable to manual input devices? [2 marks]

4. (a) (i) Differentiate between quantum computing and perceptual computing. [2 marks]

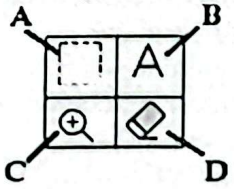
(ii) Give two examples of wearable display technologies. [2 marks]

(b) (i) How would you explain microprocessor? [1 mark]

(ii) List two components of the Microprocessor. [2 marks]

(c) (i) Explain cropping as used in paint application. [1 mark]

(ii) Identify the following tools in paint application. [2 marks]



(d) Suggest two reasons why it is not advisable to switch off computer system directly from the power button. [2 marks]

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5. (a) (i) Describe AI as used in computing [2 marks]

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(ii) Mention two applications of AI in today's digital age. [1 mark]

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(b) (i) Explain coding as used in programming [2marks]

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(ii) Name two coding applications for students. [1 mark]

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(c) (i) Explain wearable display. [1 mark]

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(ii) Identify the name of the wearable display devices below and state the function of each. [2 marks]

A B

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d) State the function of these parts of robot. [3 marks]

(i) actuator

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(ii) microcontroller

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(iii) sensor

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COMPUTING
OBJECTIVE TEST

1. The purpose of computer programming is to find a ..... of instructions that solve a specific problem on a computer.
   A. command
   B. sequence
   C. outcome
   D. accuracy

2. The following are processes used in computer program except
   A. coding
   B. analysis
   C. accuracy checking
   D. sharing

3. The binary equivalence for 2910. Is
   A. 111012
   B. 101112
   C. 100112
   D. 111102

4. The decimal equivalence for 1D8A16 is
   A. 765210
   B. 756210
   C. 766010
   D. 706610

5. One of the following is a journal coding for basic school students.
   A. Python
   B. JavaScript
   C. Scratch
   D. MS. Access

6. All the following included when coding except
   A. designing
   B. writing
   C. testing
   D. reaping

7. ..... refers to the flow of a particular sequence of code within a program
   A. Iteration
   B. Thread
   C. Sequence
   D. Series

8. The most commonly used cables are the .....
   A. ethernet cable
   B. optic cable
   C. fiber cables
   D. coaxial cables

9. The following are wireless technologies except....
   A. radio frequency transmission
   B. infrared transmission
   C. dull wave transmission
   D. microwave transmission

10. .....is a computer designed to process requests and deliver data to another computer over the internet or a local network
    A. Client
    B. Server
    C. Tower base
    D. Powerbase

11. .....is a small, rectangular, inexpensive device that joins multiple network-enabled devices
    A. Switch
    B. Router
    C. Hub
    D. Workstation

12. A network device which increases a signal's strength so that it can be transmitted and received over a greater distance without a loss inquality is
    A. hub
    B. switch
    C. repeater
    D. workstation

13. The computer network that shares data over two different communications is
    A. Personal Area Network
    B. Local Area Network
    C. Main Area Network
    D. Wide Area Network

14. .....are advanced features that can speed up editing or formatting you may perform often in a word document.
    A. Comment
    B. Track changes
    C. Ribbon
    D. Macros

15. Which of the following is used to move data from one part of the document to another?
    A. Cut and delete
    B. Cut and paste
    C. Copy and paste
    D. Copy and undo

16. To go to the end of a document, press
    A. Num lock
    B. Tab
    C. End
    D. Home

17. Which of the following options is used to display information such as title and page numbers of a document?
    A. Auto correct
    B. Header and footer
    C. Thesaurus
    D. Insert table

18. ..... is a set of unified design elements that provides a look for a document by using colour, fonts and graphics?
    A. Highlight
    B. Format painter
    C. Line spacing
    D. Theme

19. .....is a versatile word processing program that offers flexibility in correcting and revising your work, as well as a number of stylistic options to improve your documents
    A. Mozilla Firefox
    B. Tally
    C. FoxPro
    D. Microsoft word

20. Any activity that uses computers to manage, process and communicate information is known as.....

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A. Telecommunicating C. Computing
B. Telecomputing D. Computation

21. The process of input to output is directed by the
A. Software
B. Hardware
C. Operating system
D. Setting

22. Output device is a form of
A. Software
B. Hardware
C. Operating system
D. Setting

23. The brain of the computer where all arithmetic operations and logical operations take place is.....
A. Control unit
B. Section unit
C. Arithmetic logic unit
D. Internal registers

24. Any electronic, digital or physical tool that can expand the human ability for performing tasks or generating product is
A. Technical tool
B. Technological tool
C. Sectional tool
D. Mechanizing tool

25. The developmental change in computers is called
A. Generations C. Organizations
B. Systemations D. Segmentation

26. The full meaning of **ULSI** is
A. Ultimate Large-Scale Integration
B. Universal Large-Scale Integration
C. Ultra Large-Scale Integration
D. Ulti Large-Scale Integration

27. Which of the following components are associated with artificial intelligence?
A. Logic and understanding
B. Knowledge and power
C. Knowledge and reasoning
D. Knowledge and intelligence

28. All the following are features of Artificial Intelligence except.
A. Virtual reality
B. Virtual assistance
C. Machine learning
D. Voice recognition

29 The process of breaking down larger problems into smaller, independent, often similar parts that can be executed simultaneously by multiple processors is termed as
A. Serial computing
B. Systematic computing
C. Parallel computing
D. Modelled computing

30. An internal permanent store of memory which can be read but cannot normally be changed is
A. ALU C. CAD
B. RAM D. ROM

31. The smallest unit of data of a computer storage is
A. byte C. bit
B. pixel D. dot punch

32. A device which is used to send feedback to the user from the computer is.....
A. storage device C. hardware device
B. input device D. output device

33. What is the full meaning of WWW?
A. World Website Wide
B. Wide World Website
C. World Wide Website
D. Website World Web

34. A network server that provides services to other computers that are connected to it is known as.....
A. Serve C. Domain service
B. Host D. Network

35. The leading ISP in Ghana is the
A. Busy network C. MTN
B. Ucom D. Vodafone

36. The graphical representation of program, file and folders on the computer is.....
A. Icon C. Picture
B. File D. Desktop

37. All the following are antivirus programs except
A. McAfee C. Ubuntu
B. Windows defender D. Avast

38. The computer program that enables the user to surf the internet is
A. Internet surfer
B. Web browser
C. Web surfer
D. Internet Download Manager

39. Which of the following sentences best describes a program?
A. An input device
B. A set of written instructions
C. An interactive user-guide
D. A help system

40. One of the ways to prevent hacking is
A. Clicking on any website anywhere
B. Using weak security protocols
C. Sharing of private details on social media platforms
D. None of the above.

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MARKING SCHEME: COMPUTING
SECTION A: OBJECTIVES (40MARKS)

1.	B	11.	A	21.	C	31.	A
2.	D	12.	C	22.	B	32.	D
3.	A	13.	B	23.	B	33.	C
4.	B	14.	D	24.	B	34.	B
5.	C	15.	B	25.	A	35.	C
6.	D	16.	C	26.	C	36.	A
7.	A	17.	B	27.	A	37.	C
8.	B	18.	B	28.	B	38.	B
9.	C	19.	D	29.	D	39.	B
10.	B	20.	C	30.	B	40.	D

SECTION B (60MARKS)
PART I – COMPULSORY. (24 Marks)

1. (a) (i) System software is a computer software program that comes with the operating system. It is a free software with limited features. Example MS paint and WordPad. But application software is a computer software that the user intentionally installs to perform specific tasks. Application software is bought and provides complete features. Example Adobe photoshop and MS word. (2marks)

(ii) **A** – Microsoft Word
B – Adobe Photoshop
C – Microsoft Publisher
D – Adobe Illustrator. (4 marks)

(iii) **A (Functions of MS words)**
- It is a word-text document creator
- It is used to create official letters
- It helps to create school-based examination questions
- It helps to prepare budgets

B (Functions of Adobe Photoshop)
- It is used to create graphic-content documents
- It helps to create large format banners and stickers
- It is used to design brochures
- It helps to create business logos
- It helps to design colourful posters such as funerals and church posters
- It helps to create business cards

C (Functions of MS Publisher)
- It is a commonly used desktop publishing software
- It helps to design page-based documents
- It is used to design seasonal calendars
- It is used to design business cards
- It is used to design envelopes

D (Functions of Adobe illustrator)
- It is vector-based software
- It is used to design animation graphics
- It is used to design logos

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- It is used to design 3D contents
- It is used to design comic contents [8 Marks]

(b) (i) A – Video Graphic Array (VGA) cable and
B – Universal Serial Bus (USB) cable [2 marks]

(ii) A – VGA cable – Graphic card
B – USB cable – printer, keyboard, mouse, etc. [2 marks]

(iii) It helps to connect wired devices with the computer system. [2 marks]

(iv) A – VGA port and
B – USB port [2 marks]

(v) Pin (Speaker) cable, network cable, HDMI cable, etc. [2 marks]

PART II. (36MARKS)

Answer any three questions from this section.

2. (a) (i) Spam is an unofficial or unauthorized mail message that is received into one's email account and is always kept in the spam folder due to it suspicious nature. [1mark]

(ii) Heading/Title, Body [2 marks]

(b) (i) Editing in word processing refers to the making changes, such as adding and removing contents of an existing document [2 marks]

(ii) (α) **Word wrap:** It refers to the automatic wrapping text to the next line when the text reaches the right margin of a paragraph or document.

(β) **Insertion point:** Insertion point, or cursor is a blinking vertical line that indicates the location where a text or an item will appear when typed or inserted. [2 marks]

(c) (i)
- Visual impaired
- Speech difficulties
- Leg amputated
- Hand amputated, etc. [1 mark]

(ii) **A – Modified Mouse:** It helps persons with hand and eye problems to navigate easily, reduce fatigue and also improve accuracy
B – Modified keyboard: A-Modified keyboard helps persons with hand and eye problems to ensure easy typing, reduce fatigue and also improve accuracy. [2 marks]

(d) (i) Inadequate learning experience [2 marks]
(ii) Lack of physical research skills
(iii) Limited creativity
(iv) High cost of data
(v) Some AI – generated results may not be accurate

3. (a) (i) **Hacking:** This refers to the situation whereby an unauthorized person gains access to another person's computer network or accounts without permission [1 mark]

(ii)
- Use of strong password
- Use of account alert

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- Monitoring account's activities
- Avoid clicking on insecure links
- Keeping of accounts update. [2marks]

(b) (i) (α) **Search button:** It is used to initiate searching after a keyword is entered in the search box.

(β) **Refresh button:** It speeds up or reactivates the internet connection when browsing. [2 marks]

(ii)
- By using an official website address,
- By entering keywords
- By using phrase
- By visiting an official social media page [2 marks]

(c) (i) **Cloud computing** provides computing services such as servers, storage, databases, software, files, etc. over the internet. [1 mark]

(ii) A – **iCloud** by Apple company.
B – **Google Drive** by Google company [2 marks]

(d)
- Fast and accurate
- Low error record
- Little or no human effort involved [2 marks]

4. (a) (i) While quantum computing is a type of computing that uses the principles of quantum mechanics to perform calculations and operations on data, perceptual computing is a computer system's ability to interpret and understand human perceptions, emotions, and intentions. [2 marks]

(ii) Apple Watch, Google Glass, Ms. HoloLens, smart jewelry, smart clothing, etc. [2 marks]

(b) (i) A microprocessor is a central processing unit (CPU), that contains the main processing system of a computer on a single integrated circuit or a chip. [1 mark]

(ii)
- Control unit
- Arithmetic logic unit
- Registers
- Bus [2 marks]

(c) (i) **Cropping** refers to the process of removing unwanted parts of an image to focus on a specific area. [1 mark]

(ii) A – Select tool
B – Text
C – Magnifier/ Zoom tool, and
D – Eraser tool. [2 marks]

(d)
- It may lead to loss of important data
- It may lead to distraction of operating system
- The computer system may develop errors [2 marks]

5. (a) (i) **AI (Artificial Intelligence)** as used in computing refers to the development of computer systems that can perform tasks that are

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typically performed by humans such as learning, decision-making, problem-solving, etc. [2 marks]

(ii)
- Robotics,
- Uses of drones,
- Self-driving cars,
- Development of AI software, etc. [1 mark]

(b) (i) **Coding in programming** refers to the process of designing, writing, testing, and maintaining the instructions that a computer follows to perform a specific task [2 marks]

(ii)
- Scratch
- Blockly
- Python
- JavaScript, etc. [1 mark]

(c) (i) Wearable display refers to a technology device that is worn on the body to display visual information to the user. Eg. Smart watch, smart glasses, head-mounted displays (HMDs), etc. [1 mark]

(ii) **A – Smart watch:** Displays fitness information to the user.
B – Head-mounted Display (HMDs): It provides a virtual environment for the user. [2 marks]

d) (i) **Actuator:** It performs physical actions such as movements, manipulation and grasping

(ii) **Microcontroller:** The brain of computer that processes all information, making decisions and controlling actions.

(iii) **Sensor:** Responsible for gathering data such as sounds, light, temperature and touch from the robot's environment. [3 marks]

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