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|  |  | ***Signature*** |

**451/1**

**COMPUTER STUDIES**

**Paper 1**

**(Theory)**

**July 2024**

**2½ hours.**

***Mock Exams***

**INSTRUCTIONS TO CANDIDATES:**

**Instructions to Candidates**

1. Write your name and index number in the spaces provided above.
2. Sign and write the date of examination in the spaces provided above.
3. This paper consists of **TWO** sections: **A** and **B**.
4. Answer **ALL** the questions in section **A**.
5. Answer question **16** and any other **THREE** questions from Section **B**.
6. **ALL** answers should be written in the spaces provided on the question paper.

**For Examiner’s Use Only**

|  |  |  |
| --- | --- | --- |
| **Section** | **Questions** | **Score** |
| A | 1 – 15 |  |
| B | 16 |  |
| 17 |  |
| 18 |  |
| 19 |  |
| 20 |  |
| **Total Score** | |  |

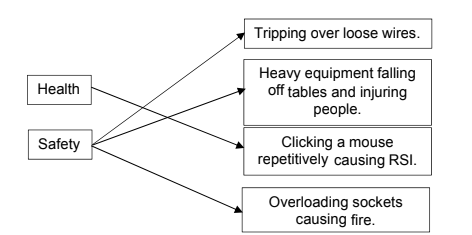
**This paper consists of**  **printed pages**

**Candidates should check the question paper to ensure that all the**

**printed pages are printed as indicated and no questions are missing.**

***SECTION A (40 MARKS)***

1. There are a number of health and safety issues associated with the use of computers.

Draw arrows from the terms Health or Safety to the matching issue. Use a maximum of **four** arrows.

**(2 marks)**

2 Differentiate between computer functionality and purpose as used in computer classification. (2 mark)

* Functionality refers to what a computer system is capable of doing in terms of its features, capabilities, and operations whereas Purpose refers to the intended use or application of a computer system within a particular context or environment.
* It focuses on the technical aspects of the computer's design, including its hardware components and software capabilities whereas purpose considers the role that the computer serves in a broader context, such as business, education, research, entertainment, or industrial automation.
* Functional classification categorizes computers based on their ability to perform specific tasks or types of processing. For example, computers can be classified as general-purpose or special-purpose based on their intended range of functions.
* Purpose:Purpose-based classification categorizes computers based on the intended usage scenario or target audience. For example, computers can be classified as personal computers, enterprise computers, or embedded systems based on the specific domain or industry they serve.
* while functionality focuses on what a computer can do in terms of its technical capabilities, purpose considers why the computer is used and the role it plays within a specific context o

(any 1 @ 2 marks

3. A company is setting up a video-conference. Name **four** computer hardware devices they would need. (2 marks)

* − Video/digital camera/webcam
* − Microphone
* − Keyboard
* − Large screen/monitor/data projector
* − Remote control
* − Speakers/headphones

4. Nekesa a mobile telephone. She uses the touch screen on her telephone to send emails to her customers. The touch screen breaks, stopping Magda from using it to type her emails.

(a) Identify **two**other input device that would be built into the mobile telephone that Magda could

use to send an email to her customers

* Physical Keyboard:
* Microphone:

(2 @ 1 mark each)(

5. When Gradhi pushes the button to take a photograph, an aperture opens at the front of

the camera to allow .........Light .................................... to stream in through the .......lens

...................... This is captured by a sensor called a charge-coupled device. The ................................Analogue-to-digital............... converter then converts each .........pixel........... into a digital value. (2 marks)

6 Keymoney stores confidential data on his computer. He uses the Internet regularly and is concerned about his data being viewed by unauthorised people. He currently has one software method to stop his data being viewed, which is a password. He wants to add other software methods to stop his data being viewed by unauthorised people. State **two** other software methods that Tamaz could use to stop his data being viewed by unauthorised people. (2 marks)

* Encryption
* − Biometric device
* − Firewall
* − Anti-spyware
* Two-factor authentication // two-step verification

(first two @1 mark)

7. State **three** functions of an operating system. (2 marks)

* Interrupt / error-handling
* Peripheral management
* Providing user interface
* Platform for running applications // installing / removing software
* Manages security // access rights/levels // user account management
* Managing time slicing // multitasking

(first 3 @ 1 mark)

8. State **three** ways by which one can prevent Vishing. (3 marks)

* Be Skeptical of Unsolicited Calls: Treat unsolicited calls with caution, especially if the caller claims to be from a trusted organization or government agency. Remember that legitimate institutions will never ask for sensitive information over the phone.
* Verify Caller Identity: If you receive a call requesting personal or financial information, ask for verification of the caller's identity. Call back using a trusted number obtained from the organization's official website or documentation, rather than using the number provided by the caller.
* Do Not Share Personal Information: Avoid sharing personal or sensitive information such as passwords, PINs, Social Security numbers, or banking details over the phone, especially in response to unsolicited calls.
* Educate Yourself and Others: Stay informed about common vishing tactics and educate yourself and others (family, friends, colleagues) about how to recognize and respond to vishing attempts. Awareness is key to preventing successful attacks.
* Use Caller ID and Call Blocking: Use caller ID to screen incoming calls and consider using call-blocking features or apps to block suspicious numbers. Some smartphones offer built-in features for identifying and blocking spam or fraudulent calls.
* Be Cautious with Automated Messages: Be wary of automated voice messages that prompt you to press a key or provide personal information. Legitimate organizations typically do not request sensitive information through automated messages.
* Verify Urgent Requests: If the caller claims there is an urgent issue or threat (such as legal action or financial penalties), take a moment to verify the authenticity of the call before providing any information or taking any action.
* Report Suspicious Calls: Report any suspicious or fraudulent calls to the appropriate authorities, such as the Communicaton commission of Kenya. Reporting helps authorities track and investigate vishing scams.
* (first two @1mark each)

9.A school intends to introduce the use of ICT in processing its academic reports. State **three** benefits that the school will realise by adopting ICT. (3 marks)

* By reducing manual effort and time required by teachers to compile and input data report data will lead to reports being ready faster
* Automated systems can calculate grades, aggregate results, and generate reports swiftly, allowing teachers to focus more on analyzing student performance rather than administrative tasks.
* Automated systems can perform calculations accurately and consistently, minimizing mistakes in grading, data entry, and report formatting. This ensures that end-of-term reports are reliable and error-free.
* ICT tools offer more flexibility in report customization which will allow easily personalized feedback, addressing individual student
* Digital end-of-term reports can be accessed easily from anywhere with an internet connection, smartphones
* Creating graphs and charts analysis reports will be easier /faster
* Teachers need not come to school to submit marks, this will make it more convenient for teachers to produce reports
* The head teacher can easily monitor the progress of report preparation from the touch of a button thus improving supervision
* This will cut down on the cost involve in purchasing paper and ink for the printer.
* (1st three @ 1 mark each)

10. Robots are being used in the mining industry to dig up minerals from under the surface of the Earth. Give **three advantages** of using robots rather than humans to do this task. **(3 marks)**

* Safety: Mining is inherently dangerous, with risks such as cave-ins, explosions, and exposure to hazardous materials. By using robots, mining companies can minimize the risk to human workers by removing them from potentially dangerous environments. Robots can operate in environments with high temperatures, toxic gases, or unstable terrain without risking human lives, thus improving overall safety in mining operations.
* Efficiency and Productivity: Robots can work continuously without the need for breaks, rest periods, or shift changes, leading to increased productivity and efficiency in mining operations. They can also operate at consistent speeds and precision, resulting in more uniform excavation and extraction of minerals. Additionally, robots can be programmed to perform repetitive or labor-intensive tasks with greater speed and accuracy than humans, optimizing the overall efficiency of the mining process.
* Cost Savings: While the initial investment in robotic mining equipment may be substantial, using robots can lead to long-term cost savings for mining companies. Robots can reduce labor costs by replacing human workers in dangerous or physically demanding tasks. They also minimize downtime due to accidents, injuries, or fatigue-related errors, resulting in higher operational uptime and throughput. Moreover, robots can be deployed in remote or inaccessible mining sites where it may be impractical or unsafe for humans to work, expanding the potential for resource extraction and revenue generation.
* Accuracy and Precision: Robots can be equipped with advanced sensors, cameras, and other technologies to accurately detect and extract minerals from underground deposits. They can navigate through narrow tunnels or confined spaces with greater precision than humans, reducing the risk of damage to surrounding infrastructure or waste of valuable resources. Additionally, robots can be programmed to adapt to changes in geological conditions or mineral deposits, optimizing the extraction process for maximum efficiency.
* Environmental Impact: Using robots for mining operations can help reduce the environmental impact of mining activities. Robots can minimize the disturbance of ecosystems and habitats by operating with precision and minimizing the footprint of mining operations. They can also be equipped with technologies for monitoring and mitigating environmental risks such as soil erosion, water contamination, and air pollution, ensuring sustainable resource extraction practices. Overall, the use of robots in mining can contribute to improved environmental stewardship and conservation efforts in the industry.

.(first 3 @ 1 mark each)

….

11. Describe each of the following types of images used in DTP. (2 marks).

(a)Raster image

* A raster image, also known as a bitmap image, is composed of a grid of individual pixels, each with its own color value. These pixels collectively form the image when viewed at a distance.....

(b) Vector image

A vector image is composed of mathematical equations that define shapes, lines, curves, and colors. Rather than storing individual pixels, vector images store geometric information and instructions for rendering the image

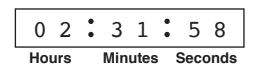
13. Write each of the following data representation acronyms in full (3 marks)

(a)ASCII

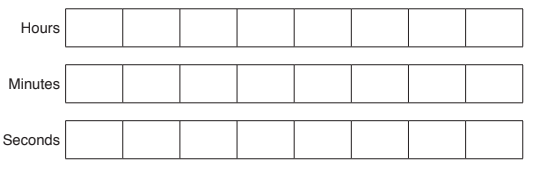
American Standard Code for Information Interchange Code

(b)EBCDIC Extended Binary Coded Decimal Interchange Code

(c)BCD Binary Coded Decimal Code

14. A stopwatch uses six digits to display hours, minutes and seconds. The stopwatch is stopped at:

An 8-bit register is used to store each pair of digits.

Write the 8-bit binary numbers that are currently stored for the Hours, Minutes and Seconds.



(3 marks)

14. A stopwatch uses six digits to display hours, minutes and seconds. The stopwatch is stopped at:

. Department

One from

Length check

Type check

Date\_of\_birth

One from

Length check

Format check

Year\_left

One from

Length check

Range check

Type check

***ANSWER QUESTION 16 AND ANY OTHER THREE QUESTIONS***

. 16(a) With the aid of a pseudocode, describe each of the following type of program control loop structures (4 marks)

(i) Repeat until loop

repeat

statement

until

repeats a block of statements until a condition is met

pseudocode 1 description 1

(ii) while loop

While Condition

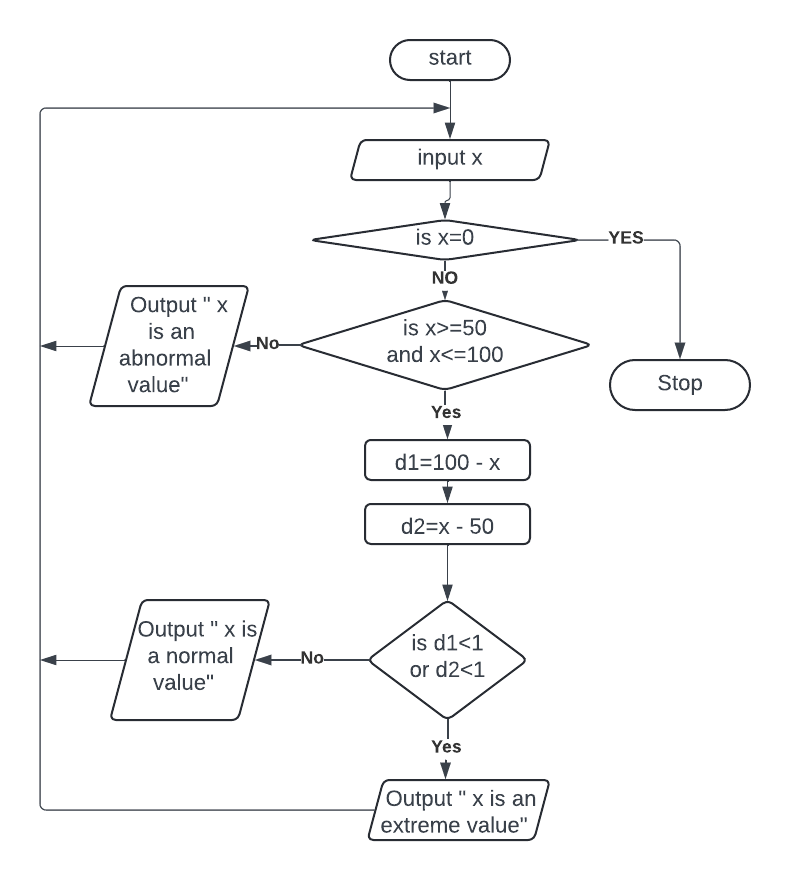
statement

end while

repeats a block of statements **only if** a condition is met

pseudocode 1 description 1

(b) Study the following flowchart then answer the questions that follow



(i) Write the output of the flow chart for each of the following values of x.(3 Marks)

49abnormal ,50 extreme, 65normal, 80normal 110 abnormal 100extreme

@ ½ mark each.

(ii) Translate the flowchart into a pseudocode (8 marks)

start

Repeat

input x

if x <0 or x>0 then

if x>=50 and x<=100 then

d1=100-x

d2=x-50

if d1<1 or d2<1 then

Output " x is an extreme value"

else

Output " x is a normal value"

endif

else

Output " x is an abnormal value"

endif

endif

until x=0

stop

17 (a) List down **two** jobs that have been created because of computer networking. (1 mark)

* Ethical hacker
* Cyber security
* Web Administrators
* Network engineers

(first two at 1 mark each)

(b) (i) Among the limitations of computer networking is the creation of digital divide in society. State the meaning of the term Digital divide. (1 mark)

The term "digital divide" in Information and Communication Technology (ICT) refers to the gap between individuals at different social-economic levels regarding their opportunities to access information and communication technologies/ use of the Internet. (1mark)

(ii) Computer networking has resulted in job replacement and job displacement. State the meaning of each of the terms:

I. Job replacement (1 mark)

Job replacement refers to the process where one job or role is completely substituted by another, often due to technological advancements or changes in organizational needs

(1 @ 1 mark)

II. Job displacement (1 mark)

Job displacement refers to the situation where workers lose their jobs due to external factors such as technological changes

(1 @ mark)

(c) State **two** ways by which computer networking facilitates communication. (2 marks)

* Email: Allows for fast, asynchronous communication across the globe, enabling the exchange of messages, documents, and multimedia files.
* Instant Messaging (IM) and Chat Apps: Platforms like WhatsApp, Telegram, and Slack enable real-time text communication, often with additional features like voice and video calling, file sharing, and group chats.
* Video Conferencing: Tools like Zoom, Microsoft Teams, and Google Meet allow for real-time video and audio communication, making virtual meetings and conferences possible, regardless of participants' locations.
* Social Media: Platforms like Facebook, Twitter, LinkedIn, and Instagram facilitate the sharing of information, ideas, and updates, enabling both personal and professional networking on a global scale.
* VoIP (Voice over Internet Protocol): Services like Skype and WhatsApp allow voice communication over the internet, reducing the cost of long-distance and international calls.
* Collaborative Tools: Applications like Google Workspace, Microsoft 365, and Trello support collaborative work environments by providing shared documents, calendars, task management, and communication channels.
* Blogs and Websites: Enable individuals and organizations to share information, updates, and content with a wide audience, facilitating broader and more effective communication.
* Online Forums and Discussion Boards: Platforms like Reddit and Stack Exchange allow for the exchange of ideas and solutions, fostering community-based communication and problem-solving.
* File Sharing Services: Tools like Dropbox, Google Drive, and OneDrive enable the easy sharing and collaborative editing of documents and files, improving communication efficiency and productivity.
* Mobile Communication: Smartphones and tablets provide access to a wide range of communication apps and tools, allowing people to stay connected on the go.
* Email Newsletters and Subscription Services: Organizations can communicate with their audience through regular email updates, ensuring the dissemination of news, promotions, and important information.
* Customer Relationship Management (CRM) Systems: Tools like Salesforce and HubSpot facilitate communication between businesses and their customers by organizing and managing interactions and data.
* Webinars and Online Training: Platforms like WebEx and GoToWebinar enable virtual training sessions, presentations, and workshops, allowing for interactive communication and learning.
* SMS and MMS: Text and multimedia messaging services allow for quick and direct communication, particularly useful for sending brief updates and alerts.
* Digital Signage and Displays: Used in public spaces, businesses, and educational institutions to disseminate information visually, reaching a broad audience effectively.

(first 2 @ 1 mark each)

(d) (i) Describe **three** types of cables used for communication in computer networks (3 marks)

* Ushielded Twisted Pair (UTP)

Description: Consists of pairs of wires twisted together to reduce electromagnetic interference (EMI) from external sources.

* Shielded Twisted Pair (STP)

Description: Consists of pairs of wires twisted together but with additional shielding to protect against EMI and crosstalk.

* Coaxial Cable: Consists of a central conductor, insulating layer, metallic shield, and outer insulating layer. The shield helps reduce interference and improve signal quality.
* Fiber Optic Cables

Uses light to transmit data, consisting of a core (glass or plastic fiber), cladding, and protective outer layer

* Ethernet Cables

A common type of network cable that uses twisted pairs to transmit data. It is a specific type of twisted pair cable often used in networking.

(First 3 @ 1 mark each)

(ii) Describe **two** ways by which computer networking achieves each of the following purposes:

(6 marks)

I. Resource sharing

* File Sharing: Networked computers can access and share files stored on central servers or other computers, reducing redundancy and ensuring that all users have access to the latest versions.
* Peripheral Sharing: Devices like printers, scanners, and storage drives can be shared among multiple users, optimizing their utilization and reducing costs.
* Application Sharing: Software applications can be installed on a central server and accessed by multiple users, ensuring consistent usage and updates.\

(first 2 @ 1 mark each)

II. Remote Communication

* Email and Messaging: Networked email systems and instant messaging platforms enable communication across different locations in real-time or asynchronously.
* Video Conferencing: Tools like Zoom and Microsoft Teams facilitate face-to-face communication over long distances, supporting virtual meetings and collaboration.
* Voice over IP (VoIP): VoIP services like Skype and WhatsApp allow voice communication over the internet, bypassing traditional phone networks and reducing costs.

III. Cost Effectiveness

* Sharing resources like printers, storage, and applications reduces the cost of using them
* it is cheaper to send email compared to sending physical letters.
* Reduced Travel Costs: Remote communication tools reduce the need for travel, saving on transportation and accommodation expenses for businesses.

18 (a) State **three** purposes of an information system (3 marks)

* Data Collection and Storage: Purpose To gather and store data efficiently and securely.
* Data Processing :Purpose To process and manage data to transform it into meaningful information.
* Information Retrieval and Access :Purpose To provide easy access to relevant information when needed.
* Support Decision-Making Purpose To assist in making strategic, tactical, and operational decisions.
* Enhance Communication Purpose: To improve communication within and between organizations.
* Improve Efficiency and Productivity: Purpose: To streamline operations and enhance productivity.
* Support Business Operations: Purpose: To facilitate and support everyday business activities..
* Enable Data Analysis and Reporting: Purpose: To analyze data for insights and generate reports.
* Support Customer Relationship Management (CRM): Purpose: To manage and enhance relationships with customers.
* Facilitate Compliance and Reporting: Purpose: To ensure compliance with regulations and standards. e.g. KRA etims ensure compliance with tax payments
* Enable Strategic Planning: Purpose: To support long-term planning and strategy development.
* Enhance Data Security and Privacy: Purpose: To protect sensitive data and ensure privacy.

(first 3 @ 1 mark each)

(b) Describe **three** methods of information gathering duing systems development.(3 marks)

* observation: Direct watching/monitoring of users or processes in their natural environment.
* interviews:Direct, one-on-one conversations with stakeholders, users, or subject matter experts.
* questionnaires: Distributing set of questions or surveys to a targeted group of stakeholders or users.
* Document Analysis: Reviewing existing documents, reports, requirements, or system documentation.
* Workshops and Brainstorming Sessions: Collaborative sessions with stakeholders or users to generate ideas, identify requirements, or solve problems.
* Stakeholder Meetings: Regular meetings with project stakeholders to discuss project progress, issues, and requirements.
* Focus Groups: Group discussions with selected stakeholders or users to explore specific topics or gather feedback.
* Prototyping and User Testing: Creating prototypes or mock-ups of the system and testing them with users to gather feedback.
* Investigation: systematic process of gathering, analyzing, and evaluating information or evidence to uncover facts, determine causes, or solve problems.

(first 3 @ 1 mark each)

(c) Describe **three** stages of program development other than information gathering(3 marks)

* The Problem Recognition and Definition stage of systems development is the initial phase where: Problem Identification takes place: becoming aware of the problem, acknowledging the problem, then Problem Definition: establishing the details of the problem by including its scope, objectives, and constraints. This helps ensure a clear understanding of what the system needs to accomplish.
* System Design: System design is the stage where the overall architecture of the software system are planned based on the requirements.

It focuses on defining the structure, components, interfaces, and data flow of the system.

* System Construction: is the stage where the software system is developed based on the design specifications.

It involves writing code, integrating components, and testing individual modules to ensure functionality.

* System Implementation: is the stage where the software system is deployed or released to the production environment for use by end-users.

It involves installing, configuring, and setting up the system in the target environment.

* System Review and Maintenance: is the stage where the software system is evaluated, updated, and maintained to ensure it continues to meet the needs of users and the organization.

It involves identifying and fixing defects, adding new features, and adapting to changing requirements over time.

(first 3 @ 1mark each)

(d) Explain **three** types of feasibility studies carried out during systems development. (6 marks)

* Schedule feasibility: To evaluate whether the proposed system can be developed and implemented within the desired timeframe.
* Technical feasibility: To assess whether the proposed system can be developed using available technology and resources.
* Economic feasibility: To evaluate the cost-effectiveness and financial viability of the proposed system.
* Legal and Regulatory Feasibility: To assess whether the proposed system complies with relevant laws, regulations, and industry standards.
* Operational Feasibility: To assess whether the proposed system will meet the operational needs and requirements of the organization.
* Social Feasibility: To evaluate the potential social and ethical implications of the proposed system on stakeholders and the broader community.

19 (a) (i) Name **two** types of errors that occur during data processing.(1 mark)

* transcription errors
* traspositional errors
* calculation errors

(first 2 @ ½ mark each)

(ii) Describe **two** ways of determining the integrity of data during data processing(2 marks)

* Accuracy: refers to the correctness and precision of the data.
* Timeliness: Timeliness refers to the currency of the data in relation to its intended use.
* Relevance: refers to the appropriateness and significance of the data in addressing the objectives or requirements of the user or organization.

(first 2 @ 1mark each)

(b) Differentiate between each of the following: (4 marks)

(i) sequential and serial methods of file organization used during data processing

* Sequential File Organization: In sequential file organization, data records are stored in a predetermined logical order e.g based on a primary key
* Serial File Organization: Serial file organization involves storing data records in a the order in which they occur which might be logical or illogical ie. in the order they are entered

(2 marks)

(ii) interactive and real-time electronic data processing modes

* Description: Interactive data processing involves direct communication and exchange between a user and a computer system during data processing
* Description: Real-time data processing involves processing data immediately as it is received, without direct communication or exchange between a user and a computer system during data processing.

(2 marks)

……….………………………………………………………………………………………………………

(c) Chepketieno is a wedding photographer. She wants to store 10 photographs on a USB flash memory drive for a customer. Each photograph is 100 pixels wide and 50 pixels high. Each pixel uses 8 bits to store a colour photograph. Calculate the total file size, in kilobytes (kB), of all the photographs. (4 marks)

Working:

− 100 × 50 = 5000 bits

− 5000 × 8 = 40,000 bits

− 40,000 / 8 = 5,000 bytes

− 5,000 × 10 = 50,000 bytes

− 50,000 / 1024

Answer:

48.83 kB accept / 49 kB

total pixels 1, total bits 1, total bytes 1 answer/total bytes 1

(d) Use twos complement to subtract the base ten number -7 from -3. Leave your answer in base 10. (4 marks)

To subtract -7 from -3 using two's complement, we first need to represent both numbers in binary using two's complement notation, perform the subtraction operation, and then convert the result back to base 10. Here's the step-by-step process:

Represent -7 and -3 in binary using two's complement notation:

For -7:

Decimal: -7

Binary: 1111 1001 (8-bit representation)

For -3:

Decimal: -3

Binary: 1111 1101 (8-bit representation)

Add a leading 1 to both binary representations to indicate that they are negative numbers in two's complement notation:

For -7: 1 1111 1001

For -3: 1 1111 1101

Perform binary subtraction:

1 1111 1101 (representing -3)

1 1111 1001 (representing -7)

Subtract -7 from -3:

yaml

Copy code

1111 1101 (complement of -3)

+ 0000 0111 (complement of +7)

\_\_\_\_\_\_\_\_\_\_\_\_

10000 0010 (discard the overflow)

Convert the result back to base 10:

Result: 10000 0010

Decimal: -2

Therefore, the result of subtracting -7 from -3 using two's complement notation is -2 in base 10.

(correct conversion 1, correct complement 1, correct addition 1, correct answer 1)

20. (a) The figure below is an extract of a spreadsheet. use it to answer the questions that follow.



The formula =SUM(A$1:$B1) as been applied in cel C1.

(i) Write the formula as it would appear when copied to cell C2. (1 MARK)

=SUM(A$1:$B2)

ii) Write down the value that would appear in cell C2 (1 MARK)

(112)

(iii) Explain the value displayed in cell C2 (2 MARKS)

* formula is mixed
* during copying, reference A$1 changes to B$1 because the row 1 is anchored by use of dollar sign
* reference $B1 changes to $B2 because the column B is anchored.
* hence the result is the sum of content in range A1 and B2

(iv) Differentiate between a cell address and a cell reference as used in spreadsheet.(2marks)

* In spreadsheets, a "cell address" refers to the unique identifier of a specific cell within the spreadsheet grid. It typically consists of a letter to represent the column and a number to represent the row. For example, "A1" refers to the cell in the first column and first row.
* A "cell reference" is a way of identifying a cell or a range of cells within a formula or function. It can be either relative or absolute. Relative references adjust when copied to other cells, while absolute references remain fixed. For example, in the formula "=A1+B1", both "A1" and "B1" are cell references. If you copy this formula to another cell, the references will adjust accordingly based on their relative positions.

(2 marks)

(b) (i) Differentiate between the terms exiting and closing as used in word processing (2 terminates a specific document.

* Exiting closes all open documents and shuts down the application, while closing removes only the selected document from view.
* Exiting ends your entire work session with the word processing software, while closing ends your work session with a specific document.

(ii) state the meaning of each of the following word processing terms:

1. printing (1mark)

In word processing,

1. "printing" refers to the process of transferring the digital content displayed on the screen onto a physical medium, typically paper, using a printer.
2. This involves sending the electronic document data to a printer device, which then produces a hard copy of the document according to the settings specified by the user.
3. saving (1 mark)

* word processing, "saving" refers to the action of preserving the current state of a document by storing it in a file on a storage device, such as a hard drive, SSD, or cloud storage.
* When you save a document, you're essentially creating a permanent copy of it that can be accessed and modified later.

(c) (i) Describe each of the following publications that can be produced by DTP

1. newsletter (1 mark)

Purpose:

* Newsletter: A newsletter is a periodic publication distributed to a specific audience, such as customers, members, or subscribers. Its primary purpose is to inform, update, or engage the audience with relevant news, articles, announcements, or other content related to a particular topic, organization, or community.

Content:

* Newsletter: Newsletters typically feature a mix of content, including articles, updates, announcements, event calendars, promotions, and other relevant information. They may cover a range of topics related to the organization's activities, industry trends, or community interests.

Frequency:

* Newsletter: Newsletters are distributed regularly, such as weekly, monthly, or quarterly, depending on the organization's communication strategy and audience preferences.

Design:

* Newsletter: Newsletters may also be visually appealing but tend to prioritize readability and organization since they contain multiple articles or sections of content. They may include a consistent layout, branding elements, and a table of contents for easy navigation.

1. brochure (1 mark)

Purpose:

* Brochure: A brochure is typically a promotional or informational document designed to highlight specific products, services, or events. It often serves as a marketing tool to attract potential customers or provide essential details about a business, organization, or offering.

Content:

* Brochure: Brochures usually contain concise and focused content aimed at conveying key messages about a product, service, or event. They may include details such as features, benefits, pricing, contact information, and visuals (like photos or illustrations).

Frequency:

* Brochure: Brochures are usually created on an as-needed basis, often tied to specific marketing campaigns, events, or product launches. They are not typically distributed on a regular schedule.

Design:

* Brochure: Brochures are often designed to be visually appealing and attention-grabbing, with a focus on showcasing products, services, or events. They may feature vibrant colors, high-quality images, and creative layouts to attract the reader's attention.

(d) The Kaafya Community Centre has created a new database which stores the details of each of its members. Each member can choose either swimming or tennis as an activity. The fields in the database are name, address, contact number, gender and activity. Illustrate a design of a database form that could be used to capture this data (3 marks)

Any three from:

− Heading

− Suitable line spacing

− Fills the page and looks like a paper based form

− Tick box/radio buttons for gender/activity

− Character boxes

− Use of white space

− Drop down box for the activities

− Drop down box for gender

− Search button for house number and post code

− Use of hyperlinks to link to home website

− Use of buttons

1 mark per group of three correct fields uptil 3 marks