

S850/1

**INFORMATION AND
COMMUNICATION
TECHNOLOGIES**

PAPER 1

2 hours



UNITA EXAMINATION BOARD

Uganda advanced certificate of education

SUBSIDIARY INFORMATION AND COMMUNICATION TECHNOLOGIES

SUBSIDIARY ICT

PAPER 1

2 HOURS

INSTRUCTIONS TO CANDIDATES

This paper consists of **two** parts: 1 and II

Answer only **two** items from this paper, choosing **one** item from each part

All responses should be presented in **formal** writing layouts

PART I

Answer one item from this part

Item 1

At **Wandegeya High School**, the ICT laboratory contains over 40 networked computers used for research, programming, and digital examinations. On a Monday morning, students arrive for a scheduled practical lesson, only to discover widespread system failures.

Several computers fail to power on completely, showing no signs of life despite being connected to power sources. Others power on but display blank screens, while a number of machines freeze at the manufacturer's logo during booting. A few computers repeatedly restart without loading the operating system, and some display critical error messages such as *"Operating System Not Found"* and *"Disk Boot Failure."*

Further complications arise when the teacher notices that:

- The lab experienced a **power fluctuation** the previous night.
- Some computers emit unusual sounds, suggesting possible hardware damage.
- A few systems that manage to boot are extremely slow and unresponsive.
- External devices like flash disks had been used widely the previous day, raising concerns about malware infection.

The ICT teacher assigns you, as a knowledgeable and responsible student, to guide your classmates in diagnosing and resolving these issues systematically to restore normal lab operations before the lesson is disrupted further.

Task

Provide a write-up identifying the common booting problems in the ICT lab, explaining their possible causes, and describing solutions to restore the computers' proper functioning.

Item 2

A local secondary school has recently received a donation of 25 computer components, which the school successfully assembled in the newly refurbished ICT laboratory. However, none of the systems are fully operational yet, as they still require installation of

operating systems and essential application software. The school currently does not have professional ICT technicians, and the headteacher is concerned because student practical lessons are scheduled to begin soon. Complicating matters, some computers fail to detect hard drives during boot, a few monitors do not display output despite the systems powering on, and the donated software is a mix of different versions on USB drives and CDs, with no standard installation guide available.

The school administration has therefore tasked a student team, led by you, to ensure the computers are correctly configured and fully functional. The team must develop a structured approach to install operating systems, device drivers, and applications, configure network settings including manual IP assignments where necessary, and verify that all systems can access shared resources and the internet. Time is limited, and the team must also ensure that the computers are secure, updated, and uniform in setup, so that the lab is ready for student use without delays or technical interruptions.

Task

Provide a detailed step-by-step guide that your team can follow to successfully install operating systems, drivers, and applications, configure the network, and verify that all donated computers are fully operational.

PART II

Answer one item from this part

Item 3

You have recently been appointed as the **social media manager** for a growing e-commerce brand that specializes in lifestyle products. The brand has an active but inconsistent online presence across several platforms including **Facebook, Instagram, LinkedIn, and Twitter**, and also communicates with customers through email newsletters. The marketing team has noticed that while the company's posts receive some engagement, there is no coherent strategy, and sometimes content appears unprofessional or inconsistent with the brand image.

To make matters more challenging, the brand has recently experienced minor **cybersecurity threats**, including phishing attempts targeting the company email and suspicious login attempts on social media accounts. The marketing team is concerned about protecting the company's online reputation, ensuring secure digital communications, and improving audience engagement across multiple platforms. They

have requested your guidance and a **convincing plan** that demonstrates how you will use social media, email newsletters, and virtual events to strengthen the company's online presence, maintain professionalism, and secure its digital assets.

Task

Provide a detailed strategic plan showing how you will improve engagement and professionalism across social media, email newsletters, and virtual events, implement measures to secure all digital accounts against cyber threats, and outline best practices and measurable results that will convince the marketing team to invest in your approach.

Item 4

Khan, a content creator and entrepreneur, manages a growing personal brand that spans multiple digital platforms, including blogs, social media, and an online store. He has recently become aware of generative AI tools capable of producing high-quality written content, social media posts, visual designs, and even data-driven insights. However, Khan has never interacted with AI before and lacks knowledge of **prompt engineering**, model capabilities, and best practices for ensuring outputs are accurate, engaging, and aligned with his brand identity.

Beyond content creation, Khan also wants to explore AI for **strategic business functions**, including customer behavior analysis, sales trend forecasting, and performance optimization across platforms. He is concerned about maintaining brand consistency, avoiding AI-generated errors, and understanding how to integrate AI outputs into his workflow efficiently. Khan reaches out for guidance because he needs a comprehensive approach that not only teaches him **how to craft effective prompts** for different AI tasks but also demonstrates how AI can support decision-making, predict trends, automate repetitive tasks, and generate creative outputs without compromising quality or security.

Task:

Provide Khan with an advanced, step-by-step guide that teaches him how to design effective AI prompts for content creation and design work, integrate AI tools into business analytics and trend forecasting, ensure output quality and brand consistency, and implement best practices for ethical, secure, and efficient use of AI across all aspects of his brand operations.