THE UNITED REPUBLIC OF TANZANIA

NATIONAL EXAMINATION COUNCIL

GRADE A TEACHERS' CERTIFICATE EXAMINATION

635   **INFORMATION AND COMMUNICATION TECHNOLOGY**

Time: 3 Hours.   **ANSWER**   **Year: 2003**

Instructions

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

2. Answer **all** questions in sections A and **two (2)** questions from each sections B and C.

3. Mobile phones and unauthorized materials are **not allowed** in the examination room.

4. Write your **Examination Number** on every page of your answer **booklet(s).**

1. Mention four advantages of computer networking.

   One advantage of computer networking is resource sharing. Users connected to a network can share printers, files, and internet connections, which reduces costs.

   Another advantage is efficient communication. Networking allows users to exchange information quickly through emails, chats, and video calls.

   It also improves data accessibility. Information stored in a central server can be accessed by multiple users at the same time.

   Lastly, networking enhances data security through controlled access and backup systems that protect files from loss.

2. State four disadvantages of using ICT in daily life.

   One disadvantage is job displacement. Automation and computerization reduce the need for human labor in some sectors.

   Another disadvantage is cybercrime. Hackers can steal personal information, leading to financial and identity fraud.

   ICT also increases health risks. Prolonged use of computers and mobile phones can cause eye strain, stress, and poor posture.

   Finally, ICT creates social problems. People may become addicted to social media and lose face-to-face interaction.

3. List four roles of ICT in modern banking.

   ICT provides online banking services that allow customers to check balances, transfer money, and pay bills remotely.

   It enhances transaction speed by enabling instant money transfers and electronic payments.

   ICT improves customer service through automated teller machines (ATMs) and mobile banking apps.

   It also strengthens security through encryption, biometric systems, and fraud detection software.

4. Give four examples of system software.

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One example is the operating system such as Windows, Linux, or macOS.

Another example is utility programs like antivirus software that protect computers from malware.

Device drivers are also system software since they enable hardware and software communication.

Finally, firmware is a type of system software embedded in hardware devices to control basic operations.

5. State four differences between LAN and WAN.

LAN covers a small geographical area like a building, while WAN covers large areas such as countries or continents.

LAN has high data transfer speeds, while WAN speeds are slower due to long distances and multiple connections.

LAN is cheaper to install and maintain, while WAN is expensive because it requires satellites, routers, and leased lines.

LAN is usually owned by a single organization, while WAN is often maintained by service providers.

6. Mention four uses of ICT in tourism.

ICT is used in online booking systems where tourists reserve flights and hotels.

It supports virtual tours that allow people to explore destinations through websites before visiting.

ICT promotes tourism marketing through social media, websites, and digital advertisements.

It also provides translation applications that help tourists communicate across language barriers.

7. Outline four problems of using floppy disks as storage.

Floppy disks have very limited storage capacity, making them unsuitable for large files.

They are easily damaged by dust, heat, and magnetic fields, which makes them unreliable.

Floppy disks are slow when reading or writing data compared to modern storage devices.

They are becoming obsolete since most modern computers no longer support floppy disk drives.

8. List four features of reliable information.

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Reliable information is accurate, meaning it represents facts correctly without errors.

It is timely, meaning it is available when needed and not outdated.

Reliable information is relevant, meaning it meets the purpose for which it is required.

It is complete, meaning it contains all necessary details for decision-making.

9. State four examples of database application software.

Microsoft Access is one example commonly used for small databases.

Oracle Database is another example used for large enterprise applications.

MySQL is widely used for web-based database management.

SQLite is another example often used in mobile and embedded systems.

10. Mention four reasons why computer maintenance is important.

Maintenance improves computer performance by keeping systems running efficiently.

It extends the lifespan of hardware by preventing damage caused by dust or overheating.

Maintenance enhances security by updating antivirus software and removing malware.

It also reduces repair costs since small issues are solved before becoming major problems.

11. Explain five contributions of ICT in promoting education in developing countries.

ICT provides access to digital libraries and online learning resources, which expand learning opportunities beyond traditional textbooks.

It enables distance learning, allowing students in remote areas to attend virtual classes without traveling.

ICT supports teacher training through online workshops and professional development courses.

It improves communication between teachers, students, and parents through email, messaging, and online platforms.

ICT also increases inclusivity by offering assistive technologies such as screen readers for students with disabilities.

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12. Discuss five ways ICT can be used to improve agricultural practices.

ICT provides farmers with access to weather forecasts that help them plan planting and harvesting.

It enables mobile banking services that allow farmers to receive payments and access loans easily.

ICT spreads knowledge on modern farming techniques through mobile apps and online platforms.

It improves market access by connecting farmers directly with buyers through e-commerce systems.

ICT supports precision farming by using sensors, GPS, and drones to monitor soil and crop conditions.

13. Explain five measures schools can take to ensure safe use of ICT among students.

Schools can install firewalls and antivirus programs to protect computers from harmful software.

They should provide awareness programs to educate students about responsible internet use.

Monitoring software can be installed to restrict access to harmful websites.

Schools should encourage strong passwords to protect student accounts and data.

They can also promote balanced ICT use by limiting screen time and encouraging physical activities.

14. Discuss five roles of ICT in international trade.

ICT enables e-commerce platforms that allow companies to sell goods and services globally.

It facilitates electronic payments, making international transactions faster and more secure.

ICT improves communication between international partners through email, video conferencing, and instant messaging.

It supports global supply chain management by tracking goods from production to delivery.

ICT enhances international marketing through online advertisements and global social media outreach.

15. Critically evaluate five ways in which ICT affects job opportunities in developing nations.

ICT creates new job opportunities in areas such as software development, data analysis, and digital marketing.

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It promotes freelancing by allowing people to work remotely for international clients.

However, ICT reduces employment in traditional sectors by replacing human labor with automation.

It increases competition since people from different regions can compete for the same online jobs.

ICT also creates digital inequalities, where those without access to technology miss out on opportunities.

16. With examples, analyse five negative impacts of ICT on youth culture.

ICT promotes addiction to social media platforms such as TikTok and Instagram, reducing productivity.

It exposes youth to cyberbullying, which negatively affects their mental health.

ICT encourages excessive gaming, leading to poor academic performance and social withdrawal.

It reduces cultural identity as youth may adopt foreign cultures seen online while neglecting their own traditions.

ICT also increases exposure to inappropriate content such as violence and pornography.

17. Justify five reasons why ICT is central to achieving sustainable development goals (SDGs).

ICT promotes quality education (SDG 4) through online learning platforms.

It supports good health and well-being (SDG 3) by enabling telemedicine and health information systems.

ICT fosters economic growth (SDG 8) by creating new industries and digital jobs.

It contributes to climate action (SDG 13) by enabling monitoring of environmental changes.

ICT strengthens global partnerships (SDG 17) by connecting countries through digital cooperation.

18. Assess five dangers of relying on unverified online information for decision-making.

Unverified information may lead to wrong decisions in health, such as following fake medical advice.

It can cause financial losses when people fall for online scams or fake investment schemes.

Unverified news can spread panic and fear, especially during crises like pandemics.

It undermines trust in genuine sources, making it harder to distinguish fact from falsehood.

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Finally, it can damage reputations if false information about individuals or organizations is accepted as truth.

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