THE UNITED REPUBLIC OF TANZANIA

NATIONAL EXAMINATION COUNCIL

GRADE A TEACHERS' CERTIFICATE EXAMINATION

635 INFORMATION AND COMMUNICATION TECHNOLOGY

Time: 3 Hours.   **ANSWER**   **Year: 2015**

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. Some students resist using ICT in their daily learning activities because they lack proper computer literacy. Students who have never been trained to operate computers, software, or online platforms find ICT intimidating, leading them to prefer traditional learning methods.

    Another reason is fear of technology replacing traditional methods they are used to. Many students feel comfortable with handwritten notes and face-to-face explanations, so the idea of switching to digital tools may create discomfort and resistance.

    A third reason is poor access to ICT devices. If a student does not have regular access to computers, smartphones, or internet connectivity, they may resist using ICT since it is impractical for them.

    Lastly, students may resist ICT due to distractions. They associate computers and the internet more with entertainment such as social media or games, so they may prefer avoiding ICT in learning to reduce temptation.

2. Digital libraries have the advantage of easy accessibility. Students can access materials anytime and anywhere provided they have internet, unlike traditional libraries which require physical presence.

    Another advantage is wide storage capacity. Digital libraries can store millions of resources in a small space, while traditional libraries are limited by physical shelves.

    Digital libraries are also easily updated. New information, books, and journals can be uploaded quickly, making learning materials current, unlike traditional libraries where updates may take months or years.

    Finally, digital libraries allow multiple users to access the same resource at once. In a traditional library, only one person can borrow a single book at a time.

3. One challenge teachers face when introducing computer-based tests is technical breakdowns. Computers may fail, software may crash, or the internet may disconnect, affecting the smooth running of the test.

    Another challenge is lack of ICT skills among teachers. Some teachers may struggle to design and administer tests using computer systems.

    There is also the issue of student dishonesty. Online exams make it easier for students to copy answers from the internet or share information with peers.

    Finally, schools face cost challenges. Introducing computer-based tests requires purchasing computers, software, and stable internet connections, which many schools cannot afford.

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4. ICT is important for school administration because it improves record-keeping. Digital systems allow storage of student records, attendance, and results securely and in an organized way.

   It also improves communication. Administrators can use ICT to send notices and updates quickly to teachers, parents, and students.

   Another reason is efficiency in management. Timetables, financial records, and staff duties can be organized easily using ICT systems, reducing workload.

   Lastly, ICT promotes transparency. With computerized systems, it becomes harder to manipulate records, reducing corruption or bias in school administration.

5. ICT improves communication by enabling fast information sharing through emails, text messages, or online platforms, avoiding delays of handwritten letters or face-to-face meetings.

   It also promotes feedback between teachers and students. Teachers can upload assignments online, and students can submit work quickly for marking.

   Parents benefit from ICT communication because they can receive updates about their children's progress through SMS or online portals.

   Finally, ICT supports group discussions where students and teachers can collaborate using online forums, chat groups, or video conferencing.

6. One factor limiting students from accessing e-learning platforms is poor internet connectivity, especially in rural areas where networks are weak or unavailable.

   Another factor is lack of ICT devices. Many students cannot afford personal laptops, smartphones, or tablets needed for e-learning.

   A third factor is limited digital literacy. Without training, students may not know how to navigate platforms, upload files, or attend virtual lessons.

   Finally, the high cost of internet bundles discourages students from using e-learning platforms regularly.

7. ICT supports students with special needs by providing screen readers for the visually impaired, which allow them to access written information in audio form.

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It also offers speech-to-text tools for students with physical disabilities that prevent writing, enabling them to participate in learning.

For hearing-impaired students, ICT provides subtitles and sign language videos to support understanding.

Lastly, ICT creates customized learning programs that allow students with learning difficulties to progress at their own pace.

8. Some schools prefer face-to-face teaching instead of e-learning because it encourages discipline. Teachers can directly monitor student behavior in the classroom.

    Face-to-face teaching also allows instant clarification. Students can ask questions immediately and get direct answers from the teacher.

    Another reason is the issue of unequal access. Since not all students have devices or internet, face-to-face teaching ensures inclusivity.

    Lastly, traditional teaching builds stronger relationships between teachers and students, which may be difficult to maintain in virtual platforms.

9. Heavy dependence on ICT for learning may reduce students' critical thinking because they tend to copy directly from online sources without analyzing the content.

    It also promotes academic laziness. Students may avoid reading books or attending lectures since they rely entirely on ICT.

    Another negative impact is exposure to distractions. Students may spend more time on social media, gaming, or entertainment rather than studying.

    Lastly, ICT dependence can cause reduced writing and note-taking skills since students type instead of practicing handwriting and summarizing.

10. Schools can reduce ICT costs by using free and open-source software instead of expensive licensed programs.

    They can also invest in shared computer labs instead of trying to provide personal devices for each student.

    Another way is regular maintenance of ICT equipment, which reduces the cost of frequent replacements caused by neglect or damage.

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Finally, schools can partner with NGOs or government programs to receive ICT support and reduce financial burdens of implementation.

11. Teachers face challenges when teaching ICT in rural schools because of poor infrastructure. Many rural schools lack stable electricity, which makes it difficult to use computers consistently.

Another challenge is lack of internet connectivity. Without reliable internet, it becomes hard to introduce students to online learning platforms and digital resources.

There is also the issue of inadequate ICT equipment. Rural schools often have very few computers, which forces many students to share one device, slowing down the learning process.

Finally, teachers themselves may lack proper ICT training. Some are not confident enough to integrate technology into lessons effectively.

12. Online assessments are reliable because they provide immediate results. This saves teachers time and reduces human errors in marking.

They are also flexible since students can take tests from different locations, which reduces the pressure of physical examination centers.

Another reliability aspect is the ability to use multiple question formats such as multiple choice, essays, or interactive questions, which test different skills.

However, online assessments also have limitations. Technical problems such as internet failures can interrupt exams, making results unreliable.

They also face risks of dishonesty, since students may access the internet or collaborate with peers during assessments.

Lastly, online assessments may not measure practical skills well, especially in subjects requiring hands-on demonstrations.

13. ICT motivates learners by making lessons more interactive. Teachers can use videos, animations, and simulations to make topics more engaging.

It also provides variety in learning resources. Instead of relying on one textbook, students can access multiple online materials, which broadens their knowledge.

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Another way ICT motivates learners is through self-paced learning. Students can revise lessons at their own speed using recorded lectures or e-learning platforms.

Finally, ICT creates opportunities for collaboration. Learners feel motivated when they interact with peers online, exchange ideas, and work on group projects.

14. Social media benefits students by allowing quick communication. Learners can form study groups on platforms such as WhatsApp or Telegram to share notes and discuss assignments.

It also helps in resource sharing. Students can access educational pages, videos, and blogs that improve their academic understanding.

Another benefit is peer motivation. Seeing classmates posting about academic success encourages others to study harder.

However, social media has negative effects such as addiction. Students may spend more time chatting or scrolling than studying.

It also exposes learners to cyberbullying, which lowers confidence and affects academic performance.

Lastly, false information spreads easily on social media, and students may adopt wrong academic materials.

15. Using ICT in school management has many benefits. It helps in monitoring student performance since results can be stored and analyzed digitally.

It also improves efficiency in administration by automating timetables, staff duties, and financial management.

Another benefit is transparency. Digital records reduce manipulation of marks or misuse of school funds.

However, challenges include high costs of ICT systems, which some schools cannot afford.

There is also the challenge of cyber security. If systems are not well protected, sensitive student and financial data may be hacked or leaked.

16. Governments in developing countries can improve ICT integration in schools by providing affordable internet. This allows students and teachers to access digital learning resources.

They can also introduce ICT training programs for teachers to improve their competence in using technology in classrooms.

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Another strategy is funding ICT infrastructure by building computer labs, installing solar power in rural areas, and supplying necessary devices.

Finally, governments can encourage partnerships with NGOs and private sectors to support schools with ICT facilities, software, and technical expertise.

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