

**THE UNITED REPUBLIC OF TANZANIA  
NATIONAL EXAMINATION COUNCIL  
GRADE A TEACHERS' CERTIFICATE EXAMINATION**

**635**

**INFORMATION AND COMMUNICATION TECHNOLOGY**

**Time: 3 Hours.**

**ANSWER**

**Year: 2019**

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**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)**.

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**1. A school is planning to introduce digital tools in all classrooms. Mention four possible benefits students could gain from this change.**

Students gain richer understanding because multimedia lessons combine text, images, audio, and short simulations, which helps different types of learners grasp abstract ideas more easily.

Students collaborate more effectively since shared documents and classroom platforms let them plan, write, and review group work in real time, building communication and teamwork skills.

Students receive faster feedback when quizzes are digital, results appear quickly, and teachers can target help to specific gaps, so learning time is used more efficiently.

Students develop practical digital skills while doing normal class tasks, for example organizing files, evaluating sources, and presenting with software, which prepares them for further study and work.

**2. During a lesson, a teacher notices that some students are struggling to use a projector effectively. Suggest four reasons why this may happen.**

There may be limited orientation to the equipment, so students do not know how to connect devices, select input sources, or adjust display settings, which leads to delays and confusion.

The projector settings may not fit the room, for example low brightness or wrong aspect ratio, so text is unreadable from the back and students think the tool is the problem.

Cables, adapters, or wireless casting tools may be missing or incompatible with student devices, which turns a simple task into a technical hurdle.

File formats may not render correctly, for example unsupported video codecs or fonts, so slides and media appear broken and students lose confidence.

**3. A group of students have been found copying answers directly from the internet for their assignments. Give four disadvantages of this practice.**

Understanding stays shallow because students paste information without analyzing it, so they cannot explain or apply ideas during tests or discussions.

Originality and creativity decline, which harms academic growth and may lead to disciplinary action for plagiarism, damaging trust with teachers.

Skills such as summarizing, paraphrasing, and referencing do not develop, so future tasks that require academic writing become much harder.

Incorrect or low quality sources slip through easily, so errors multiply in assignments and mislead classmates who rely on copied work.

**4. Imagine a school library has only one computer for all students. Explain four problems that might arise from this situation.**

Access becomes a bottleneck because queues form, students rush through tasks, and some leave without completing research or submissions.

Timetables become difficult to manage since teachers must compete for the same machine, which reduces flexibility for homework support and remedial work.

The single point of failure increases risk, a minor fault or malware infection disables the only digital access, stopping research for everyone.

Inequality grows because confident or outspoken students secure more time, while shy or slower learners miss out on essential practice.

**5. Some students use social media during class time. Describe four negative effects this could have on their learning.**

Attention splits between lesson tasks and feeds, which lowers comprehension and forces the teacher to repeat explanations, wasting learning time.

Short form content conditions students to skim rather than read deeply, so they struggle with extended texts and multi step problems.

Peer pressure and comparison increase anxiety, which reduces participation and willingness to ask questions during lessons.

Notifications and chats interrupt group activities, so collaboration quality drops and deadlines slip.

**6. A teacher wants to design a lesson using ICT but lacks enough training. State four challenges the teacher may face in this case.**

Selecting the right tool for the objective becomes guesswork, so activities may look modern but fail to build the intended skill.

Technical setup takes too long, for example installing apps, creating accounts, or fixing settings, so teaching time shrinks and momentum is lost.

Assessment alignment is weak because the teacher may not know how to capture evidence of learning from digital tasks or link it to the rubric.

Classroom management becomes harder when students finish steps at different speeds online, and the teacher lacks strategies to keep everyone engaged.

**7. A school computer laboratory has not been serviced for a long time. Explain four problems that may result from this.**

Performance degrades due to outdated software, full storage, and dust buildup, so applications freeze and students cannot complete activities on time.

Security risks increase because antivirus and system patches are old, which exposes student data and invites malware that spreads across the network.

Hardware failures become common, for example failing fans or loose power supplies, which cut the number of working stations and crowd the remaining ones.

User frustration rises, attendance drops for lab sessions, and teachers avoid planning ICT based lessons, so the investment brings little learning value.

**8. A student with hearing difficulties joins a school that uses ICT in teaching. Suggest four ways ICT could help this student learn effectively.**

Captioned videos and live transcription tools convert speech to text, so the student follows explanations and class discussions in real time.

Visual first resources such as animations, infographics, and diagrams carry the main ideas without relying on audio, improving comprehension.

Learning platforms support written discussion, private questions, and teacher feedback, which gives the student equitable participation channels.

Alert and communication settings can be customized with visual notifications and haptic cues, so the student does not miss instructions or deadline reminders.

**9. In some schools, students spend more time on online games than on learning activities. Give four consequences of this behavior.**

Homework quality falls because time allocated for research and practice shrinks, which leads to gaps that accumulate across subjects.

Sleep patterns are disrupted by late gaming, causing daytime fatigue, poor concentration, and lower test performance.

Relationships at school suffer if group tasks are delayed or one member contributes little, which reduces trust and grades for the whole team.

Problem solving narrows to game mechanics, while academic skills such as extended writing, data analysis, and experiment planning receive less practice.

**10. A school is worried about students being victims of online fraud. State four possible effects such experiences might have on the students.**

Financial loss, even small amounts through phishing or fake subscriptions, creates fear of digital payments and reduces willingness to use useful online services.

Emotional distress follows incidents of identity theft or account hijacking, leading to anxiety, shame, and reluctance to participate in online class activities.

Academic disruption occurs when stolen accounts block access to learning platforms or when malicious actors delete files needed for assessment.

Long term digital reputational damage can persist if scammers post harmful content under a student's name, which may affect scholarships or future opportunities.

**11. A government has introduced a policy that every secondary school must adopt e-learning platforms within one year. Explain four challenges schools in rural areas may face in implementing this policy.**

Many rural schools face unstable electricity supply, which makes it difficult to run computers, charge devices, or keep servers online, resulting in frequent interruptions to learning.

Internet connectivity is often weak or unavailable in rural locations, meaning students and teachers cannot reliably access e-learning platforms or download essential content.

Limited financial resources in rural schools restrict the purchase of laptops, tablets, or projectors, leaving only a small number of learners with access to digital lessons.

Teachers in rural areas may lack advanced ICT training, so they cannot fully integrate e-learning tools into teaching, reducing the effectiveness of the policy.

**12. Imagine a school invests heavily in smartboards for every classroom, but after one year, many teachers still prefer chalkboards. Suggest four possible reasons for this situation.**

Teachers may feel more comfortable with familiar tools like chalkboards, as shifting to smartboards requires new teaching habits which can be intimidating.

Smartboards may frequently malfunction due to poor maintenance or power issues, leading teachers to rely on chalkboards as a more dependable option.

Some teachers may believe that traditional boards allow better control of pace and interaction, especially when drawing diagrams or writing equations step by step.

The training given might have been too short or too theoretical, leaving teachers without the confidence to use advanced features of the smartboards effectively.

**13. A teacher introduces an online discussion forum for students, but only a few students participate actively. Give four possible explanations for this low participation.**

Some students may lack access to devices or reliable internet at home, making it difficult to log in regularly and contribute to the forum.

Others may feel shy or lack confidence in writing responses publicly, fearing mistakes or judgment from peers.

Students may not see the value of participation if the forum is not graded or clearly linked to classroom performance.

Poor moderation by the teacher may allow irrelevant or unhelpful comments, discouraging serious learners from engaging actively.

**14. A science teacher wants to use a computer simulation to explain chemical reactions. Identify four advantages of using such a simulation.**

Simulations allow safe observation of reactions that would otherwise be dangerous, such as explosions or the release of toxic gases.

They let students repeat experiments quickly with different variables, helping them understand cause and effect more clearly.

Complex molecular processes can be visualized in motion, making abstract concepts easier to grasp than static diagrams.

Simulations save resources, since chemicals, glassware, and lab space are not consumed, which lowers costs for the school.

**15. In some schools, students are required to submit assignments only through email. Explain four problems that may arise from this requirement.**

Students without personal devices or reliable internet access may be unable to submit work on time, creating inequality.

Emails may get lost in crowded inboxes, causing delays in marking and feedback from teachers.

Students may struggle with formatting files or attaching documents correctly, especially if they are inexperienced with email systems.

Cybersecurity risks such as viruses or phishing emails may increase when many attachments are exchanged between students and teachers.

**16. A school wants to replace all textbooks with digital versions on tablets. Discuss four drawbacks this change might cause.**

Tablets require charging, and if power cuts occur or chargers are lost, students may be left without access to learning materials.

Reading on screens for long periods can cause eye strain and fatigue, reducing concentration compared to printed books.

The cost of purchasing and maintaining tablets, as well as repairing damaged ones, may exceed the cost of printed textbooks.

Technical issues like software glitches, storage limits, or system crashes could prevent students from accessing important content during lessons or exams.