

**THE UNITED REPUBLIC OF TANZANIA  
NATIONAL EXAMINATION COUNCIL  
DIPLOMA IN TECHNICAL EDUCATION EXAMINATION**

722

**EDUCATION**

**Time: 3 Hour.**

**ANSWERS**

**Year: 2018**

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**Instructions**

1. This paper consists of **seven (7)** questions.
2. Answer **five (5)** questions only.
3. Each question carries **twenty (20)** marks.
4. All communication devices and any unauthorised materials are **not** allowed in the examination room
5. Write your **Examination Number** on every page of your answer booklet(s)

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**1. (a) Define the term “instructional objective” as used in teaching.**

An instructional objective is a specific, measurable statement that outlines what the learner is expected to achieve by the end of a lesson or instructional session. It defines the desired learning outcomes in terms of observable behavior and serves as a guide for both teaching and assessment.

**(b) Give four characteristics of well-written instructional objectives.**

They are specific and clearly state what the learner will do.

They are measurable, allowing performance to be assessed through observation or testing.

They focus on the learner’s behavior, not the teacher’s actions.

They are realistic and achievable within the allocated time and learning environment.

**(c) Rewrite the following poorly stated objective into a correct behavioral objective: “Students will understand the concept of electrical resistance.”**

“By the end of the lesson, students will be able to define electrical resistance and calculate resistance in a simple circuit using Ohm’s law.”

**(d) List and briefly explain the three domains of learning that must be considered when setting objectives in Technical Education.**

Cognitive domain focuses on mental skills such as knowledge, comprehension, and problem-solving.

Psychomotor domain relates to physical skills and the manipulation of tools or equipment.

Affective domain involves attitudes, values, and feelings that influence behavior in learning.

**2. (i) Identify three weaknesses in the teacher’s preparation.**

The general objective is vague and not measurable, lacking specific learner behavior.

The activities are not clearly sequenced or linked to the lesson duration and objectives.

The evaluation method is too general and lacks a clear way to assess individual competence.

**(ii) Suggest three improvements that can be made to enhance the lesson.**

Rewrite the general objective into a specific, measurable behavioral objective.

Break down the activities into stages with clear time allocations and expected outcomes.

Include a structured assessment method such as a checklist or short quiz for evaluating understanding.

**(iii) Mention four factors that should be considered when selecting teaching and learning materials for such a lesson.**

Relevance to the topic and alignment with the learning objectives.

Availability and accessibility of the materials within the institution.

Safety and suitability for the learner's age and skill level.

Durability and ease of use during demonstrations or hands-on activities.

### **3. (a) What is meant by the term “training methodology”?**

Training methodology refers to the systematic approach or strategy used by a trainer to deliver content and facilitate learning in a structured manner. It includes the techniques, procedures, and activities that help learners acquire knowledge and develop skills effectively.

**(b) Explain four reasons why choosing an appropriate methodology is important in Technical and Vocational training.**

It ensures that the content is delivered in a way that matches learners' abilities and learning styles.

It increases the effectiveness of skill acquisition through hands-on practice and real-world application.

It promotes learner engagement, making lessons more interactive and interesting.

It helps achieve intended learning outcomes by aligning methods with objectives and content.

**(c) List three learner-centered training methodologies suitable for technical classrooms and briefly describe each.**

Demonstration: The teacher shows how to perform a task while learners observe before practicing.

Project-based learning: Learners complete a real-life task or assignment that integrates theory and practice.

Group discussion: Learners exchange ideas and solve problems collaboratively, fostering critical thinking.

**4. (a) Describe what is meant by “learning environment” in a technical institution.**

A learning environment refers to the physical, psychological, and social conditions under which learning takes place. In a technical institution, this includes the classrooms, workshops, tools, relationships, and overall atmosphere that influence student engagement and achievement.

**(b) Mention four characteristics of a positive learning environment.**

It is safe and free from hazards or distractions.

It is well-organized, with adequate equipment and resources.

It promotes mutual respect and good communication between teachers and students.

It encourages participation, motivation, and a sense of belonging among learners.

**(c) Explain how each of the following can affect the learning environment:**

(i) Lighting: Poor lighting can strain students’ eyes and reduce concentration, while good lighting improves visibility and focus.

(ii) Workshop layout: A disorganized layout may cause accidents or confusion, while a well-planned layout facilitates smooth movement and efficient use of space.

(iii) Noise levels: Excessive noise can be distracting and reduce communication clarity, while controlled noise supports concentration.

(iv) Availability of equipment: Lack of tools limits practice and skill acquisition, while adequate equipment ensures effective training.

**5. (a) What is evaluation in education?**

Evaluation is the process of collecting and analyzing information to determine the effectiveness of teaching, the extent of learner achievement, and the appropriateness of instructional strategies. It guides improvement in both learning and teaching processes.

**(b) Differentiate between diagnostic, formative, and summative evaluation.**

Diagnostic evaluation is conducted before instruction to identify learners' strengths and weaknesses.

Formative evaluation is done during the learning process to provide feedback and guide improvements.

Summative evaluation occurs at the end of a unit or course to assess overall learning outcomes and assign grades.

**(c) State four benefits of using continuous assessment in Technical Education.**

It provides regular feedback to students and instructors on learning progress.

It helps identify learners' challenges early and allows for timely intervention.

It promotes consistent learning and discourages last-minute cramming.

It supports the development of a complete learner profile beyond final exams.

**(d) Give three challenges teachers may face when implementing continuous assessment strategies.**

Lack of time to conduct frequent assessments and give meaningful feedback.

Inadequate tools or standardized criteria for evaluating performance consistently.

Heavy workload from maintaining records and analyzing results for each student.

**6. (a) Define the term “competence” in the context of Competency-Based Education and Training (CBET).**

Competence refers to the ability of a learner to apply knowledge, skills, and attitudes to perform tasks effectively and to the standard expected in a real work environment. It includes both technical and soft skills needed for job success.

**(b) Explain the following components of a competence statement:**

(i) Performance criteria: These are specific actions or standards that the learner must demonstrate to prove mastery of a skill.

(ii) Conditions under which performance occurs: This outlines the tools, environment, and resources required for the learner to perform the task.

(iii) Required knowledge: This refers to the theory or background information that supports the correct performance of the skill.

**(c) Identify three advantages of using competence-based assessment in workshops.**

It focuses on what learners can do in real job settings, increasing employability.

It ensures mastery of skills by requiring demonstration of actual performance.

It allows learners to progress at their own pace based on skill acquisition rather than time spent in class.

**7. (a) Outline four stages of habit formation in learners during practical training.**

Awareness stage where the learner is introduced to the desired behavior or practice.

Initial practice stage where the learner consciously tries to adopt the new behavior.

Repetition stage where the behavior becomes routine through consistent application.

Automaticity stage where the behavior becomes a habit and is performed without conscious effort.

**(b) Explain three strategies a teacher can use to help students replace poor workshop habits with productive ones.**

Modeling good habits by demonstrating correct procedures regularly.

Providing immediate feedback and correction when poor habits are observed.

Using reinforcement such as praise or rewards when students consistently display good habits.

**(c) State four reasons why developing good habits is essential in vocational education.**

Good habits improve efficiency and accuracy in task performance.

They promote safety by reducing careless mistakes in the workshop.

They build professionalism and reliability in the learner's work ethic.

They support long-term skill retention and transfer to the workplace.