THE UNITED REPUBLIC OF TANZANIA

NATIONAL EXAMINATIONS COUNCIL OF TANZANIA

DIPLOMA IN SECONDARY EDUCATION EXAMINATION

764 CURRICULUM AND TEACHING

Time: 3 Hours **ANSWERS** **Year: 2009**

Instructions

1. This paper consists of section A and B.

2. Answer all questions in section A and four questions from section B.

1. List down four (4) things required by a teacher to prepare a scheme of work.

A teacher needs the syllabus to prepare a scheme of work effectively. The syllabus provides a structured outline of topics and subtopics that must be covered within a given academic period. It ensures that the content aligns with educational requirements and standards.

Another essential requirement is learning objectives. Before developing a scheme of work, the teacher must identify the expected learning outcomes for each topic. These objectives guide lesson planning and assessment.

A teacher also requires available teaching and learning materials. These include textbooks, laboratory equipment, charts, and multimedia resources. Having a clear understanding of available materials helps in planning effective teaching strategies.

Lastly, time allocation is crucial. The teacher must divide the syllabus into manageable units and assign time to each topic. This ensures that all subjects are covered within the academic term without unnecessary delays.

2. Explain briefly the importance of curriculum theory in curriculum development.

Curriculum theory provides a framework for designing, implementing, and evaluating educational programs. It helps curriculum developers structure learning experiences in a way that meets educational goals effectively.

It ensures alignment between curriculum objectives, content, and assessment. A well-developed curriculum theory ensures that all components work together cohesively, leading to a more structured and effective education system.

Curriculum theory also guides instructional methods. By understanding different learning theories, educators can choose appropriate teaching approaches that cater to diverse student needs.

Additionally, curriculum theory supports curriculum evaluation and modification. It provides a foundation for assessing the effectiveness of a curriculum and making necessary improvements based on research and feedback.

3. Analyse two (2) factors which differentiate curriculum from syllabus.

One key difference is scope and comprehensiveness. A curriculum is a broad educational framework that includes subjects, teaching methods, learning activities, and assessment strategies for an entire education system. A syllabus, on the other hand, is a specific document outlining topics and content to be covered in a particular subject for a specific class or course.

Another major difference is content flexibility. The curriculum is designed at a national or institutional level and remains relatively stable over time, with periodic reviews. The syllabus, however, may change more frequently based on subject advancements and educational reforms to ensure content remains relevant.

4. What is brainstorming technique?

Brainstorming is a teaching strategy that encourages students to generate multiple ideas or solutions on a given topic within a short period. It is commonly used in discussions, problem-solving, and creative thinking exercises.

During brainstorming, students share ideas freely without criticism or evaluation. The teacher facilitates the session by guiding the discussion and ensuring all ideas are considered before refining and selecting the most viable ones. This method enhances creativity, critical thinking, and active participation in the learning process.

5. Differentiate with examples educational textual from non-textual materials.
Educational textual materials refer to printed or digital documents that provide written content for learning. Examples include textbooks, reference books, journals, and lecture notes. These materials contain structured information and explanations that guide students in acquiring knowledge.
Educational non-textual materials are instructional aids that do not primarily rely on written content but use visuals, audio, or interactive elements. Examples include charts, diagrams, videos, and models. These materials help students understand complex concepts by providing practical demonstrations and visual explanations.

6. What is the difference between classroom management and classroom organization?

Classroom management refers to the strategies a teacher uses to maintain discipline, ensure student engagement, and create a positive learning environment. It includes setting rules, managing student behavior, and establishing routines to promote effective teaching and learning.

Classroom organization, on the other hand, involves the physical arrangement of classroom resources, furniture, and learning materials to facilitate learning. This includes seating arrangements, placement of teaching aids, and classroom layout to ensure accessibility and interaction among students.

7. Explain the concept of curriculum evaluation.

Curriculum evaluation is the process of assessing the effectiveness, relevance, and impact of an educational program. It involves measuring how well the curriculum meets learning objectives and student needs.

This evaluation helps in identifying strengths and weaknesses in the curriculum, allowing for necessary revisions and improvements. It also ensures that the curriculum remains aligned with societal, technological, and job market demands.

Curriculum evaluation can be formative (ongoing during implementation) or summative (conducted at the end of a program to measure overall success). Both types help educators refine teaching strategies and improve student learning experiences.

8. Narrate four (4) questions in curriculum development according to Tyler's Model.

Tyler's Model of curriculum development focuses on four key questions:

What educational purposes should the school seek to attain? This question defines the learning objectives and goals of the curriculum.

What educational experiences can be provided that are likely to attain these purposes? This question helps in selecting instructional strategies, teaching methods, and learning activities.

How can these educational experiences be effectively organized? This ensures that the curriculum is structured logically, with content arranged in a sequence that enhances learning progression.

How can we determine whether these educational purposes are being attained? This question emphasizes the importance of assessment and evaluation in measuring student achievement and curriculum effectiveness.

9. Identify systematically six (6) levels of cognitive domain ranging from the lowest to the highest.

The cognitive domain, based on Bloom's Taxonomy, consists of six levels arranged from the simplest to the most complex:

1. Remembering – The ability to recall facts and basic concepts (e.g., listing the parts of a plant).

2. Understanding – Explaining ideas or concepts (e.g., summarizing the causes of World War II).

3. Applying – Using information in new situations (e.g., solving a math problem using a learned formula).

4. Analyzing – Breaking down information into parts to understand relationships (e.g., comparing different economic systems).

5. Evaluating – Making judgments based on criteria and reasoning (e.g., assessing the effectiveness of a government policy).

6. Creating – Producing new or original work (e.g., writing a research proposal on renewable energy solutions).

10. State four (4) importance of a subject logbook.

A subject logbook helps in tracking lesson progress. Teachers can record topics covered, ensuring that the syllabus is completed on time.

It serves as a reference for lesson continuity. If a teacher is absent, another teacher can use the logbook to pick up from where the previous lesson ended.

The logbook aids in performance evaluation, allowing teachers to review what has been taught and adjust lesson plans accordingly.
Lastly, it facilitates accountability, ensuring that teachers follow the planned curriculum and complete lessons as scheduled.
11. Assess four (4) factors which contribute to the changes of curriculum development.
Technological advancements influence curriculum changes by introducing new skills and tools necessary for the modern workforce, such as digital literacy and coding.

Societal needs drive curriculum reforms to address emerging issues like climate change, gender equality, and entrepreneurship education.

Government policies play a key role, as authorities periodically review and update curricula to align with national development goals and global education standards.

Educational research and innovations lead to curriculum changes by introducing new teaching methodologies and learning strategies that improve student engagement and outcomes.

12. Modern approaches to teaching and learning advocate for cooperative learning. Discuss.

Cooperative learning is a student-centered approach where learners work together in small groups to achieve academic goals.

One advantage is that it enhances teamwork and social skills. Students learn how to collaborate, communicate, and resolve conflicts effectively.

It encourages active participation, as each group member contributes to discussions and problem-solving activities.

Cooperative learning improves retention and comprehension because students explain concepts to each other, reinforcing their understanding.

Lastly, it promotes peer learning, allowing students with different strengths to support each other, making learning more inclusive.

13. Explain steps to follow when a teacher applies the "jigsaw technique" in the classroom.

The Jigsaw technique is a cooperative learning strategy where students work in groups to learn and share information. The following steps guide its application in the classroom:

The first step is dividing students into home groups. The teacher organizes students into small groups, ensuring diversity in abilities and backgrounds. Each group is given a general topic, and each member is assigned a subtopic to focus on.

The second step is forming expert groups. Students with the same subtopic from different home groups meet to research and discuss their assigned content. They become "experts" on their specific subtopic through reading, discussions, and problem-solving activities.

The third step is returning to home groups. After expert group discussions, students go back to their original home groups and teach their peers about their assigned subtopic. Each student plays an active role in sharing knowledge, ensuring that all members understand the entire topic.

The fourth step is group presentations and assessment. The home groups compile their shared knowledge and present their findings to the class. The teacher assesses understanding through quizzes, discussions, or written summaries.

The final step is reflection and feedback. Students reflect on what they learned and discuss how well they understood the topic. The teacher provides feedback to reinforce key points and address misconceptions.

14. Application of participatory techniques in teaching and learning is highly emphasized. Describe the importance of participatory methods in teaching and learning.

Participatory methods are essential in education as they engage students actively in the learning process. One importance is that they promote deeper understanding. When students participate in discussions, experiments, and problem-solving activities, they grasp concepts better than through passive listening.

Another benefit is that participatory methods enhance critical thinking and problem-solving skills. Students learn to analyze situations, ask questions, and develop independent solutions, preparing them for real-life challenges.

Additionally, these methods improve retention and recall. When students engage in hands-on activities and discussions, they remember information longer compared to rote memorization.

Participatory techniques also foster collaboration and teamwork. Group activities help students learn from each other, build communication skills, and develop a sense of responsibility.

Moreover, they increase student motivation and interest. Interactive lessons are more engaging and enjoyable, reducing boredom and improving student participation.

Lastly, participatory methods encourage inclusivity by allowing all students, regardless of their abilities, to contribute to the learning process. This approach helps build confidence and self-expression.

15. "I have been teaching History in Form Two for ten years now, therefore there is no need to prepare a scheme of work for the same class and the same subject." Subject teacher told the school Academic Officer when he was asked to submit his scheme of work. Comment on this statement.

The teacher's statement reflects a misunderstanding of the role of a scheme of work in lesson planning. Even though the teacher has been teaching the same subject for ten years, preparing a scheme of work remains essential for effective lesson delivery.

A scheme of work ensures consistency and organization. It outlines what will be covered each week, ensuring that the syllabus is completed on time and in a structured manner. Without it, there may be gaps or unnecessary repetitions in teaching.

Additionally, a scheme of work allows flexibility and adaptation. Over time, educational content, teaching methods, and student needs evolve. A well-prepared scheme of work helps the teacher integrate new teaching strategies and current events relevant to the subject.

The scheme of work helps in monitoring and evaluation. It provides a reference for tracking lesson progress, making it easier to assess whether learning objectives are being met.

Moreover, accountability is crucial in teaching. The school administration requires documented lesson plans to ensure that teachers are following the curriculum and delivering content effectively.

Lastly, having a scheme of work benefits substitute teachers. If the teacher is absent, another teacher can easily continue from where the lesson left off, ensuring smooth learning continuity.

For these reasons, the teacher's argument is invalid, and a scheme of work should be prepared every academic term.

16. "Some teachers argue that nowadays teaching and learning processes become difficult if one uses participatory methods." Discuss.

While some teachers believe participatory methods make teaching difficult, this perspective overlooks the long-term benefits of active learning.

One challenge teachers face is classroom management. Participatory methods involve discussions, group work, and hands-on activities, which may lead to increased student movement and noise. However, with proper classroom discipline, these challenges can be controlled.

Another concern is time constraints. Some teachers argue that participatory methods require more time than traditional lectures. While this may be true, these methods lead to better understanding and reduce the need for excessive revision.

Teachers also worry about students' varying participation levels. In group discussions, some students may dominate while others remain passive. To address this, teachers can assign roles to ensure equal participation.

A common difficulty is lack of teaching resources. Some participatory methods require materials like charts, projectors, and internet access. However, teachers can use locally available resources and simple strategies like peer discussions and role-playing to overcome this limitation.

Despite these challenges, participatory methods improve student engagement, critical thinking, and retention. Instead of avoiding these methods, teachers should learn to integrate them effectively to enhance learning outcomes.

17. Give recommendations of strategies that would improve teaching and learning of the poor performed subjects like Mathematics.

One key strategy is using real-life applications. Mathematics can be difficult when taught abstractly. Teachers should incorporate real-world examples, such as budgeting, measurements, and statistics, to make concepts relatable and practical.

Another strategy is introducing interactive and participatory methods. Teaching Mathematics through group problem-solving, games, and hands-on activities helps students grasp concepts more effectively than passive learning.

Additionally, providing remedial lessons and peer tutoring can support struggling students. Extra lessons and peer-assisted learning create opportunities for individualized attention and alternative explanations of difficult concepts.

Integrating technology is another effective strategy. Using digital tools such as interactive apps, videos, and simulations can help visualize complex mathematical concepts, making learning more engaging.

Teachers should also focus on positive reinforcement. Encouraging students through rewards, praise, and motivational strategies can help build confidence in their mathematical abilities.

Lastly, teacher training and development is essential. Providing workshops and training for teachers on modern Mathematics teaching techniques ensures they stay updated with best practices.

By implementing these strategies, the performance of subjects like Mathematics can significantly improve.

18. Critically describe types of curriculum evaluation.

Curriculum evaluation can be categorized into several types, each serving a specific purpose in assessing the effectiveness of an educational program.

One type is Formative Evaluation, which is conducted during the curriculum implementation process. It helps identify weaknesses and areas for improvement, allowing necessary adjustments to be made before the final assessment. Teachers use quizzes, class discussions, and observations as part of formative evaluation.

Another type is Summative Evaluation, which occurs at the end of a course or academic period. It measures whether the curriculum has achieved its objectives by assessing student performance through final exams, standardized tests, and project evaluations.

Diagnostic Evaluation is used before instruction begins to assess students' prior knowledge, strengths, and weaknesses. This helps teachers adjust their teaching approaches based on students' needs. Pre-tests and student interviews are common diagnostic evaluation methods.

Process Evaluation focuses on the implementation of the curriculum. It assesses whether teaching methods, learning activities, and instructional materials are being applied as planned. Observations and teacher self-reports are commonly used in this evaluation.

Lastly, Impact Evaluation examines the long-term effects of a curriculum on students, teachers, and society. It measures how well graduates apply the knowledge and skills they acquired in their careers and daily lives.

Each type of curriculum evaluation plays a critical role in ensuring that educational programs are effective, relevant, and continuously improving.