

0738 Information and Communication Technology (ICT)

1.0 Introduction

This examination format is based on the Information and Communication Technology (ICT) syllabus introduced for the first time in the teacher training colleges in 2007. The syllabus is competence-based. Thus, the examination is intended to assess the candidates' competences rather than the content they can reproduce.

2.0 General Objectives

The examination will generally assess the extent to which the candidates will be able to:

- 2.1 develop knowledge and skills in the use of ICT facilities.
- 2.2 develop awareness of the current development and the impact of the use of ICT in the teaching and learning process.
- 2.3 demonstrate skills of processing, interpreting and disseminating information.
- 2.4 analyse and interpret ICS curriculum materials for ordinary secondary schools.
- 2.5 help learners to realize the role of ICT in the socio-economic and cultural development of the society.
- 2.6 facilitate the learning of computer networks and security issues in the networked environment.
- 2.7 assess the process of students' learning.
- 2.8 develop self-reflective skills.

3.0 General Competences

The examination will assess the candidate's abilities to:

- 3.1 demonstrate skills in using ICT facilities in teaching and learning process.
- 3.2 process, interpret and disseminate information
- 3.3 create a simple computer program and develop a website.
- 3.4 promote the use of ICT in bringing about the development of the society.
- 3.5 keep abreast with the current development and issues related to everyday use of ICT facilities.
- 3.6 analyse the principles of teaching ICS by using ICT resources.
- 3.7 guide learners in application of ICS principles in the teaching and learning process.
- 3.8 design a good computer lab.
- 3.9 prepare a lesson plan, scheme of work and use the appropriate teaching methods in teaching ICS.
- 3.10 plan and prepare teaching and learning resources.
- 3.11 describe the types of ICS assessment tools and explaining their uses in learners' assessment.
- 3.12 use the Table of Specification to set ICS test items based on all six cognitive functions' of Bloom's Taxonomy.
- 3.13 analyse the test items and preparing a marking scheme/guide.
- 3.14 Categorize the factors that influence ICS standardized test scores.

4.0 Examination Rubric

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There will be **one** examination paper of **three (3)** hours duration consisting of **eighteen (18)** questions in the sections A, B and C. The candidates will be required to answer **ALL** the questions in section A, **two (2)** questions from section B and **two (2)** questions from section C.

4.1 Section A: Subject Content

This section will consist of **ten (10)** short answer questions each carrying **four (4)** marks. Candidates will be required to answer ALL questions and the section will carry a total of **forty (40)** marks.

4.2 Section B and C: Pedagogy

Section B will consist of **four (4)** essay questions. The candidates will be required to answer **two (2)** questions from this section. The section will carry **forty (40)** marks.

Section C will comprise **four (4)** essay-type questions. The candidates will be required to answer **two (2)** questions from this section. The section will carry **twenty (20)** marks.

5.0 Examination Content

In setting ICT examination, the following topics will be considered:

5.1 Subject Content

- 5.1.1 Information Technology
- 5.1.2 Computer Basics
- 5.1.3 Computer Applications
- 5.1.4 Computer Programming Language
- 5.1.5 Websites
- 5.1.6 Multimedia
- 5.1.7 Socio-Economic and Cultural Aspects of ICT

5.2 Pedagogy

- 5.1.1 Principles of teaching and learning ICS
- 5.1.2 Computer laboratory management skills
- 5.1.3 Planning and preparation for teaching ICS
- 5.1.4 Assessment procedures for ICS.

6.0 Table of Specifications

S/N	Topics	Skills to be Tested						Total number of questions	Percentage weighting per topic
		Knowledge	Comprehension	Application	Analysis	Synthesis	Evaluation		
1.	Information Technology							2	7.7
2.	Computer Basics							2	7.7
3.	Computer Applications							4	15.4
4.	Computer programming languages							2	7.7
5.	Websites							2	7.7
6.	Multimedia							4	15.4
7.	Socioeconomic and cultural aspects of ICT							4	15.4
8.	Principles of teaching and learning ICS							1	3.8
9.	Computer laboratory management skills							1	3.8
10.	Planning and preparation for Teaching ICS.							2	7.7
11.	Assessment procedures for ICS							2	7.7
Total Number of Questions		4	2	7	6	2	5	26	
Percentage weighting per topic		15.4	7.7	26.9	23.1	7.1	19.2		100

Note: The current modules of ICT and ICS have been prepared with Microsoft-based materials. In Teachers' Colleges, equipment, software and teaching materials focus on open source materials based on the Solaris operating system. This note intends to draw the attention of the examiners during preparation of examinations, to ensure that the examination is prepared in a manner that gives flexibility to the candidates in applying the knowledge from both operating systems (open source, and in Windows) during the examination.