THE UNITED REPUBLIC OF TANZANIA
NATIONAL EXAMINATIONS COUNCIL
DIPLOMA IN SECONDARY EDUCATION EXAMINATION

738 INFORMATION AND COMMUNICATION TECHNOLOGY

Time: 3 Hours Friday, 06 May 2016 p.m.

Instructions

1. This paper consists of sections A, B and C.
2. Answer **all** questions in section A and **two (2)** questions in each of the sections B and C.
3. All writings should be in blue/black ball point pen except for diagrams that must be drawn in pencil.
4. Calculators are **not a**[illegible] the examination room.
5. Cellular phones are not allowed in the examination room.
6. Write your **Examination Number** on every page of your answer booklet(s).

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SECTION A (30 Marks)

Answer **all** questions in this section.

1. Briefly explain any three principles of teaching and learning ICS.
2. Explain the following terms as used in computing:
   (a) Swapping (b) Algorithms (c) Compiler.
3. Identify three applications of word processing programs to the classroom teacher.
4. Briefly describe the major components that are involved in the information dissemination process.
5. Determine the use of the following in spreadsheets application software:
   (a) Title bar (b) Standard tool Bar (c) Menu bar.
6. Identify three advantages of using presentation software such as PowerPoint during teaching and learning process.
7. Briefly elaborate the functions of the following in database management systems:
   (a) Tables (b) Forms (c) Queries.
8. Distinguish operating system software from application software.
9. (a) Describe the term "Computer user interface" as used in computing.
   (b) Explain the two types of computer user interface.
10. Differentiate the following terms as used in databases.
    (a) Primary key and foreign key (b) Flat file Database and Relational Database.

SECTION B (30 Marks)

Answer **two (02)** questions from this section.

11. Justify the contention that "the functionality of computer networks depends on the computer network topology".
12. Analyze five challenges that affect internet connections in secondary schools in Tanzania.
13. Discuss the role of each element in the computer system development life cycle.
14. Evaluate the significance of multimedia in the teaching and learning process in the Tanzanian context.

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SECTION C (40 Marks)

Answer **two (02)** questions from this section.

15. Elaborate six reasons that justify the significance of teaching and learning Information and Computer Studies (ICS) pedagogy in Teachers' Collages in Tanzania.

16. Examine six purposes of keeping test records in secondary school in Tanzania.

17. Evaluate the essence for teachers to prepare schemes of work before they begin teaching.

18. Why it is important for the ICS teacher to use teaching aids in his/her lesson. Substantiate your answer by giving six reasons.

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