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

738 INFORMATION AND COMMUNICATION TECHNOLOGY

Time: 3 Hours Friday, 11th May 2012 p.m.

Instructions

1. This paper consists of sections A, B and C.
2. Answer **all** questions in section A and **two** (2) questions from each of the sections B and C.
3. Read each question carefully before you start answering it.
4. All writings should be in blue/black ball point pen except for diagrams which must be drawn in pencil.
5. Calculators are **not** allowed in the examination room.
6. Cellular phones are **not** allowed in the examination room.
7. 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. Give brief description of the following categories of software.
   (a) Operating system (OS).
   (b) Utility software.
   (c) Application software.

2. Outline three purposes of assessment in learning ICS.

3. With the aid of a well labelled diagram, show the relationship between data, processing and information.

4. What are the basic hardware and software requirements for setting up a LAN network?

5. (a) Why would network users connected via a hub experience network transmission problems with increasing number of users?

   (b) What network hardware will be required to replace the hub in order to improve network performance?

6. Distinguish the following terms as used in database management systems.
   (a) A field.
   (b) A record.
   (c) A file.

7. With examples, briefly describe the following types of peripheral device interfacing.
   (a) Parallel interface
   (b) Serial interface

8. (a) Differentiate interpreters from compilers as used in computing.
   (b) Why were interpreters more suitable in early computers compared to compilers?

9. Describe the following concepts as used in ICT.
   (a) Centralized computer lab.
   (b) Hypermedia.

10. Outline four criteria which teachers can use to select a film as a teaching material.

SECTION B (30 Marks)

Answer **two (2)** questions from this section.

11. With examples, analyse the main stages of software development process.

12. Examine why most organizations prefer their computers networked.

13. Describe the important elements of multimedia.

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14. Elaborate the factors to consider when designing a website.

SECTION C (40 Marks)

Answer **two (2)** questions from this section.

15. Evaluate the role that assessment plays in implementing the ICS curriculum.

16. With examples, analyse the application of ICT in the areas of education and business.

17. Explain five advantages of projected materials in the teaching and learning process.

18. Elaborate five factors which teachers must consider while selecting a teaching strategy.

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