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

738   **INFORMATION AND COMMUNICATION TECHNOLOGY**

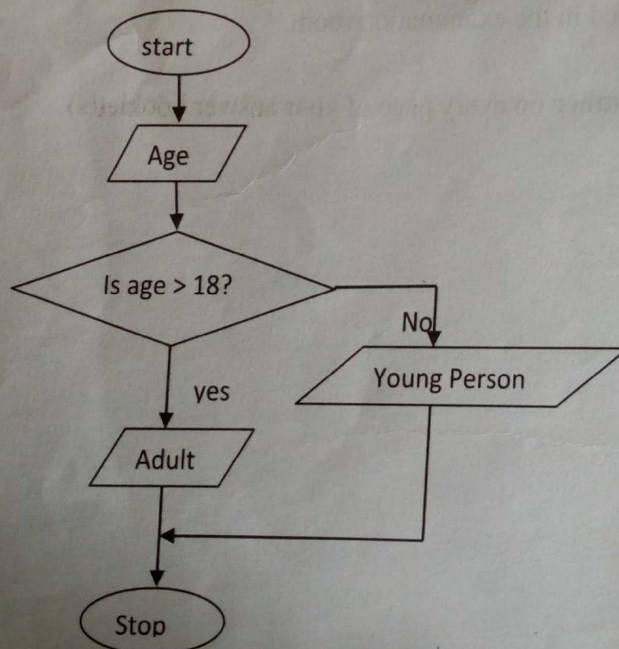Time: 3 Hours   **Friday, 08 May 2015 p.m.**

Instructions

1. This paper consists of section 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** allowed in 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 three benefits of technology to teachers.

2. Give three differences between operating system and application software.

3. Give three reasons why proofreading a word processed document is important even if a spellchecker is used.

4. Explain the following terms as used in computer programming.
   (a) Translators   (b) Interpreters   (c) Compilers

5. Differentiate the following pairs of terms as used in spreadsheets.
   (a) Workbook and Worksheet
   (b) An active cell and a cell address
   (c) Formula bar and menu bar.

6. Identify at least three advantages to the teacher of using computer to keep students' records as opposed to manual system of record keeping.

7. Briefly describe three qualities of a well-prepared presentation for educational purposes.

8. Interpret the following flowchart by writing an equivalent pseudocode.

```
        ( start )
           |
         / Age /
           |
      < Is age > 18? >---- No ----
           |                      |
          yes              / Young Person /
           |                      |
       / Adult /                  |
           |                      |
           |<---------------------
           |
        ( Stop )
```

9. If the mean score in Computer Studies test at Mtakuja Secondary School is 83, calculate the Z score and T Score of Masolwa who got 78 in the test given that:

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(a) The standard deviation is 4.12.

(b) Z - score $= \dfrac{x - \bar{x}}{SD}$

(c) T - score $= 10z + 50$

10. Briefly explain any three major elements of multimedia.

SECTION B (30 Marks)

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

11. Analyze five advantages of configuring a star network topology over other types such as a bus network topology.

12. Examine five major factors to consider when selecting a programming language.

13. Elaborate the first five major stages of website development.

14. Describe five ways which can be used to ensure the safety of computers and equipment in the computer laboratory.

SECTION C (40 Marks)

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

15. Explain six procedures which will ensure that teacher made tests are fair and reliable.

16. Evaluate the significance of teaching and learning of Information and Computer Studies (ICS) to learners (Give six points).

17. Describe any six tools which can be used by teachers in assessing students' achievement during the teaching and learning of ICS.

18. Describe the functions of teaching aids in teaching and learning Information and Computer Studies (ICS).