THE UNITED REPUBLIC OF TANZANIA
NATIONAL EXAMINATIONS COUNCIL
ADVANCED CERTIFICATE OF SECONDARY EDUCATION EXAMINATION

136/2

COMPUTER SCIENCE 2
(PRACTICAL)

(For Both School and Private Candidates)

Time: 3 Hours **Friday, 13th May 2016 a.m.**

Instructions

1. This paper consists of **three (3)** questions.
2. Answer any **two (2)** questions including question **one (1)**.
3. Submit printed codes and screenshots together with the softcopy of your work(s).
4. Save your work on the desktop in the folder named by your **Examination Number**.
5. Save your work by using the 1997-2003 version of the MS Office software you are using.
6. Check whether the **printed** work(s) are similar to the **softcopy** saved in the folder.
7. Cellular phones are **not** allowed in the examination room.
8. Type your **Examination Number** on every page of your softcopy work(s).

acsee-029

1. (a) Construct a program in C++ that prints a 'pyramid' shape of a specified height on the screen. The pyramid shape should be made of "*" characters. A program should prompt a user to enter the height of the pyramid. The height must be between 1 and 30.

(b) Generate a program in C++ that reads two integers from the user. A program must find the Greatest Common Factor of entered integers. Print with a suitable message.

(25 marks)

2. (a) Use HTML codes to construct the student identity card as shown below:

MINISTRY OF EDUCATION

STUDENT IDENTITY CARD

DODOMA SECONDARY SCHOOL

P.O.BOX 200, DODOMA-TANZANIA
Tel; +2551252880

Form: Five 2012/13
Six 2014
Exam No: Syyy/xxx



If found please return to the above address

Page descriptions

- The first table border =1, cellpacing="0", cellpadding="0", width="600", height ="300".
- Second table border=0, cellpacing="0", cellpadding="0" width= "100%", height="100%".
- Borders color=blue.
- Font color of the statement "MINISTRY OF EDUCATION" should be red and level of heading must be three (h3).
- Font color of the statement "STUDENT IDENTITY CARD" should be black and level of heading must be four (h4).
- Font color of school name and address/ contact should be blue. Font size of school name and contact is (h4) and (h5) respectively.
- Insert any image of your choice from the pictures library.
- Font color of italized statement must be red.
- Re-place Syyy/xxx with your Examination Number.

(b) Create JavaScript page which can load prompt box that asks a user to enter a number. A Script should provide a message through an alert box to inform a user the status of the number entered. Script must test the input entered whether is a number, positive or negative. Provide appropriate message for each category of possible inputs.

Note:

- The heading of your page should be "My first JavaScript page webpage" with blue color and aligned at center.
- Choose any suitable background color of your page.

(25 marks)

3. (a) (i) Use Microsoft access to create database called DBOS. Design a table named "Student" which consists of the following fields; Student ID, Student Name, Age, Mark1, Mark2, Mark3, Total marks, average and Grade.

(ii) Construct a form named "Studentform". Make your form active so that Total marks, Average and grade can be calculated automatically on it. Use the following conditions to assign grades; if average >80 "A", if average>60 "B", if average >40 "C", if average>20 "D" and if average <20 "F".

(iii) Add ten records to the table through form created in (ii) to test your system.

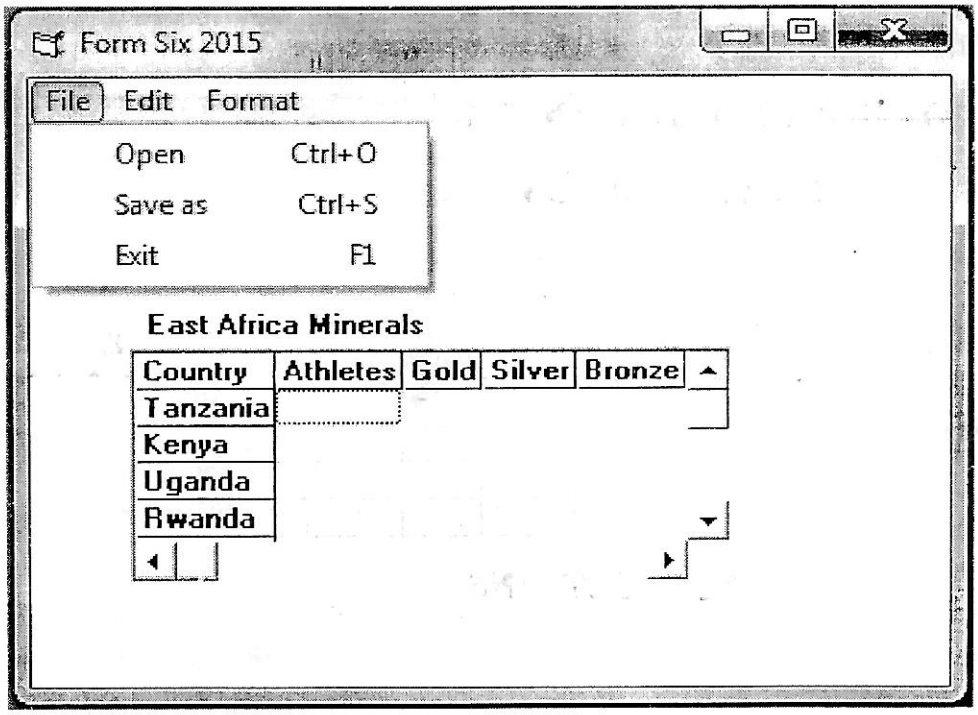
Table descriptions:

- The highest marks entered must be 100. If a user enters mark greater than 100, a message "sorry the highest mark is 100" should be displayed.
- Student age should be greater than 7 and less than 20. A system should display a message "The entered age is not allowed" when a user enter the age below or above the limit.

Form descriptions:

- The form background color should be dark blue.
- Font type of fields should be Bodoni MT black.

(b) Use Visual Basic program to construct the interface below:



Form descriptions:

- The background color of the form should be &H00C0FFC0&.
- File menu consisting of Open, Save as and Exit items with shortcuts Ctrl + O, Ctrl + S and F1 respectively.
- Edit menu consisting of Paste, Cut and Copy items.
- Format menu consisting of Background color, Font and Bold items.
- Use Microsoft FlexGrid control to create East Africa minerals.

(25 marks)