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

136/2

COMPUTER SCIENCE 2
(PRACTICAL)
(For Both Schools and Private Candidates)
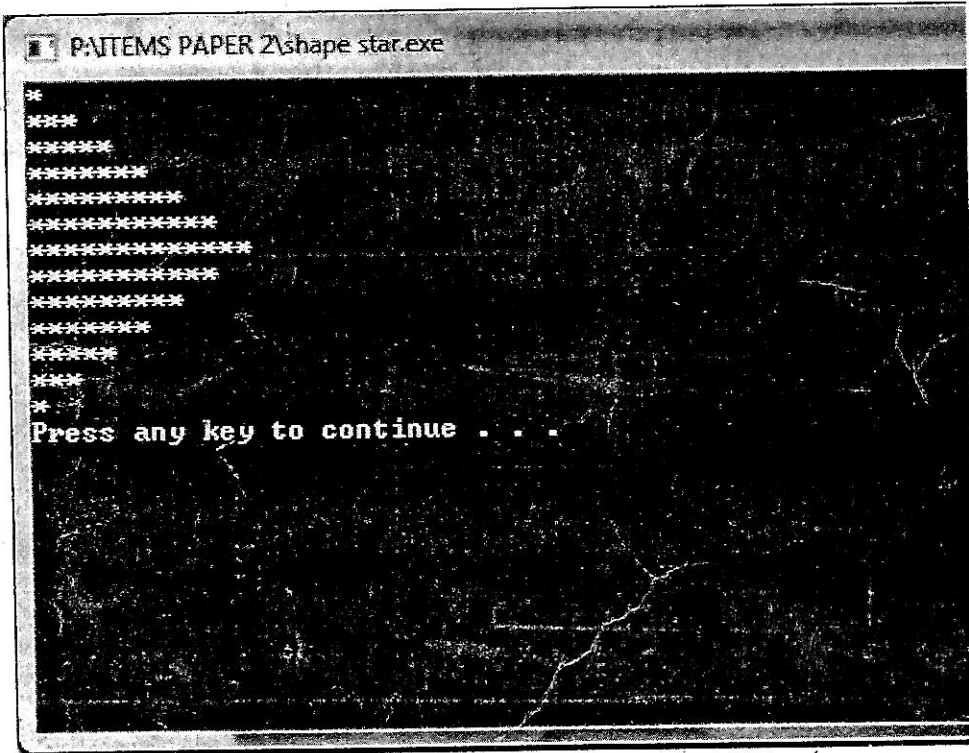
Time: 3 Hours   **Friday, 15ᵗʰ May 2015 a.m.**

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 aré **not** allowed in the examination room.

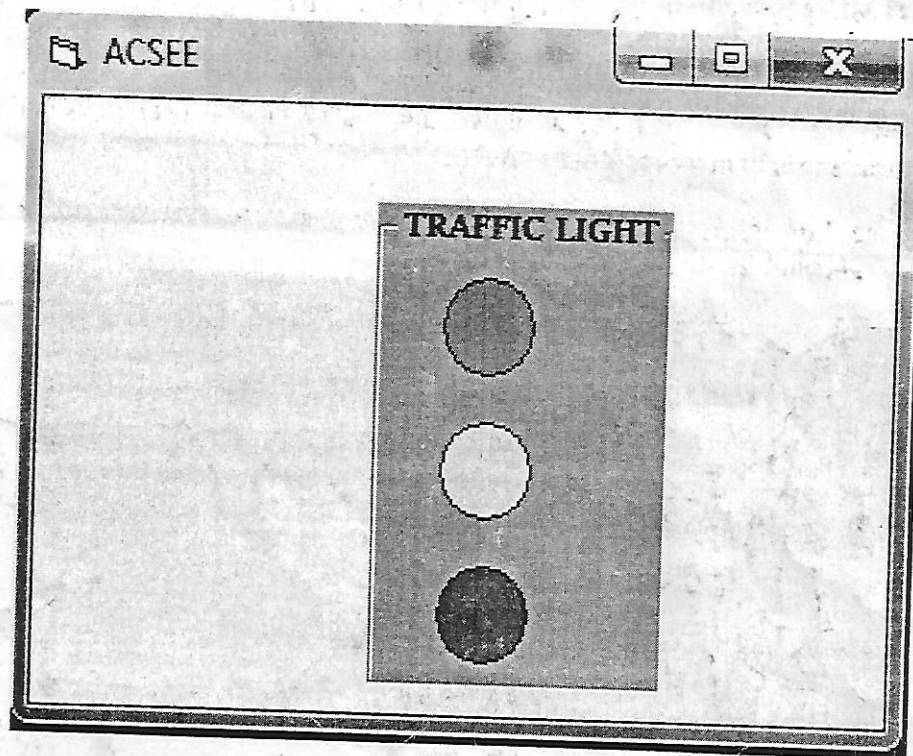8. Type your **Examination Number** on every page of your softcopy work(s).

1. (a) Create a C++ program that will prompt the user to enter student's final grades. Grades must be integer values ranging from 1 to 9. The program should prompt a user to key "Y or y" in order to enter more grades by displaying the statement "Do you want to enter more Grades Y/N". The program then displays the grades average, the highest grade, and the number of students failed the course once a user keys "N" or "n". (HINT. A grade less than 4 is a failing grade).

   (b) Use For loop in C++ programming language to generate the shape shown in the screenshot below:

   (25 marks)

2. (a) (i) Use Visual Basic program to construct an interface named "Multiplication table" which consists of command button called "Display Table" and "PictureBox". Set Blue colour as background color of the form and adjust the PictureBox control so that it can display multiplication table.

   (ii) Generate a program using Visual Basic interface created in (a)(i) above to display multiplication tables for integers from 1 to 4 after clicking a command button "Display Table".

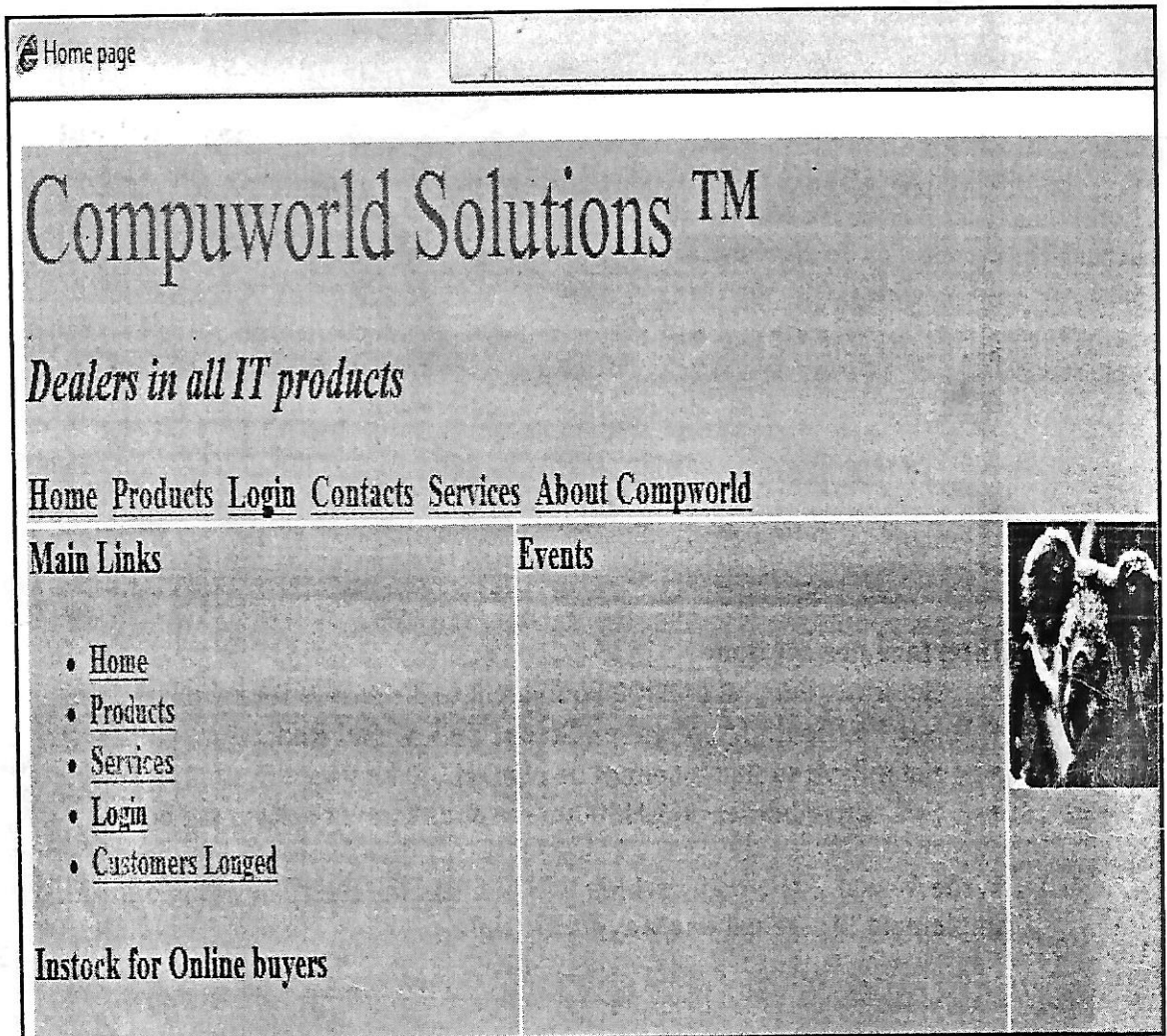(b) (i) Use Visual Basic program to create the Traffic Light interface below:

Interface description:

- Set timer interval to 3000 equivalent to 3 seconds for each light.
- Set Traffic Light colors' as Green, Yellow and Red.
- Set a form so that it cannot be resized by the user.
- Set Active border or &H8000000A& as frame background color.

(ii) Write Visual Basic codes which will activate the interface created in (b)(i) above to implement like actual one way traffic light.

(25 marks)

3. Use HTML codes to design webpages for Computer World Solutions Company as shown below. The login link should open a form which asks a user to enter user name and password. Validate a form using JavaScript (check whether the entries are blank and username is not a number).

Note: Use table to create partitions.

Page description:
- Both table width and height are 100%.
- The width and height of the first row are 100% and 40% respectively.
- The width and height of the second row are 100% and 60% respectively.
- Colspan for the first row should be 3.
- Font size and color of the heading is 84 and Maroon respectively.
- Background color of the heading Compuworld Solution should be light blue.
- Font color of the statement "Dealers in all IT products" should be blue.
- Background color of the main links, event and picture should be laveader.
- All links should not open (dead link) except login link.
- Use your favorite image from the pictures folder available in your computer.

(25 marks)