THE UNITED REPUBLIC OF TANZANIA

NATIONAL EXAMINATIONS COUNCIL OF TANZANIA

ADVANCED CERTIFICATE OF SECONDARY EDUCATION

EXAMINATION

136/2 **COMPUTER SCIENCE 2**

(For Both School and Private candidates)

Time: 3 Hours **Year: 2020**

Instructions

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

1. (a) Use an "Array" and "For loop" to create a C++ program which prompt a user to enter marks of five subjects for three students. The program should display the total marks, average and grade for each student as well as overall average marks. Use the grading system given in table 1 to assign average grades.

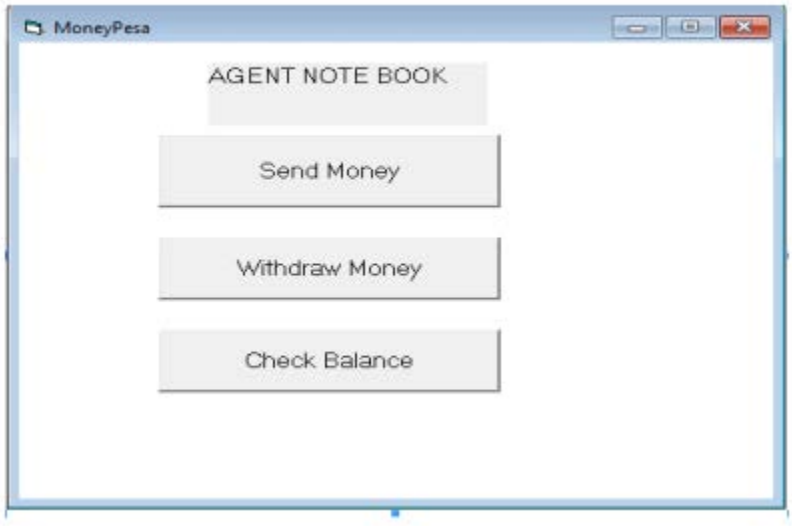
Table 1

Average Range	**Grade**
75 - 100	A
65 - 74	B
55 - 64	C
45 - 54	D
35 - 44	S
0 - 34	F

(b) Construct a C++ program that requests a user to enter the number of rows, columns and the matrix elements. The program should display the entered matrix and find its transpose. (HINT: For transpose matrix rows are changed into columns and columns into rows).

2. (a) Use Visual Basic program to create the following interface of Agent.

Note Book:



(b) Construct Visual Basic codes which will activate the interface created in part (a). The interface should enable an agent to send money to three customers and provide new balance for a customer and an Agent. Use the information given in table.

NAME	PHONE NUMBER	BALANCE
Agent	0	100,000
Customer 1	1	12000
Customer 2	2	10000
Customer 3	3	25000

(i) Use prompt box to ask a user to enter customer phone number and the amount to be sent after clicking Command button "Send Money".

(ii) Use message Box to display new customer balance and agent balance after each transaction.

(iii) Use prompt box to withdraw money and display the agent amount remained in a message box.

(iv) Display Message Box "Your balance is 100,000" when a user clicks a command button "Check Balance".

(c) The following table shows Form V midterm test records from a certain Secondary School.

Student

StudentID	StudentName	Physics	Chemistry	Mathematic	Total	Average	Grade
1001	Musa	20	78	89	187	62	B
1002	Joseph	45	60	78	183	61	B
1003	Mombasa	78	22	12	112	37	D
1004	Tanje	81	42	98	221	74	B
1005	Wago	91	83	71	245	82	A

(i) Use Microsoft Office access to create a table which contains the information above.

(ii) Use appropriate data type for each field. Save a table as “Student” and save database as “Shule”.

(iii) Create a form and save as StudentForm.

(iv) Create query and its report for students who got Grade B. Save it as GradeB and ReportB respectively.

(v) Activate your form so that Total Marks and Average Marks can be calculated automatically on it.

3. (a) Use HTML frame codes and basic HTML tags to create a given web page with the specified page descriptions.

(b) Create a form which would enable a user to calculate the Maximum, Minimum and both Maximum and Minimum using JavaScript and HTML codes for three entered Numbers. Also, a user should provide a 'Reset button’ option so as to clear the data entered.