

REPUBLIC OF RWANDA


RWANDA EDUCATION BOARD

ADAVANCED LEVEL NATIONAL EXAMINATIONS 2013

SUBJECT: COMPUTER SCIENCE

## COMBINATIONS : MATHS-COMPUTER SCIENCE-ECONOMICS: MCE MATHS-PHYSICS-COMPUTER SCIENCE: MPC

## DURATION : 3 HOURS

## INSTRUCTIONS :

1. Do not open this paper until you are told to do so.
2. This paper consists of three sections: A, B and C.

Section A: This section is compulsory. (55 marks)
Section B: Attempt three questions.
(30 marks)
Section C: Attempt any one question.
(15 marks)
3. Use only blue pen.

1. Define a flowchart.
2. What makes up a Visual Application (Project)?
3. What are the three ways for a variable to be declared?
4. What are the three ways to connect to a database in Visual Basic? (3Marks)
5. Define Object Oriented Programming.
6. Distinguish 'while' and 'do - while' statements.
7. List the different types of parameter passing techniques.
8. Define class.
9. Where will you classify a member function?
10. What is the use of a destructor?
11. What is the difference between structure and a class?
12. Define virtual function.
13. What is meant by pointer and null pointer?
14. Give any two error handling functions and their purposes.

## Section B: Attempt any three questions from this section. (30 marks)

(15) Define the following:
a) Branching Statements.
b) Looping Statements
c) if statement. Setect ftgments
d) while statement. iterotion stat
18. Write a pseudocode of an algorithm that will read the two sides of a rectangle and calculate its area.
(17) Convert the binary number 1111011 to decimal number.
18. How does a main () function in $\mathrm{C}++$ differ from main () in C ?
(10marks)
19. What is ADO? What are its objects?
(10marks)

## Section C: Attempt any one question from this section (15 marks)

20. Write a C program to print fibonacci series $\widehat{1} 12358$ 13).
21. Write an algorithm to find the sum and average of three given numbers.
