

Computer Science
016

05 Nov.2013 8.30am – 11.30 am

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.

Section A: Attempt all questions (55 marks)

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

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

15. Define the following:

- a) Branching Statements. (2,5marks)
- b) Looping Statements (2,5marks)
- c) **if** statement. (2,5marks)
- d) **while** statement. (2,5marks)

16. Write a pseudocode of an algorithm that will read the two sides of a rectangle and calculate its area. (10marks)

17. Convert the binary number 1111011 to decimal number. (10marks)

18. How does a main () function in 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 (0 1 1 2 3 5 8 13).

21. Write an algorithm to find the sum and average of three given numbers.

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