



CROWFORD UNIVERSITY
Faculty of Natural and Applied Sciences
Department of Computer Science and Information Technology
Harmattan Semester Examination 2009/2010 Academic Session

Level: 200

Course Code/Title: CSC 205 - Computer Programming II

INSTRUCTION: Answer question ONE and any other THREE

Time: 3 hours

- 1a. Mention two techniques that facilitate development of structured computer programs. [2Marks]
- b. Identify and correct the errors in each of the following statement:
 - i. `printf("The value is %d\n", &number);`
 - ii. `scanf("%d%d", &num1,num2);`
 - iii. `if (k<8);`
`print("k is less than 8\n");` [6 Marks]
- c. Write a C program that calculates and prints the sum of positive integers from 1 to 20. [5 Marks]
- d. Write a C functions that input the scores of a student offering English Language and Mathematics and compute his/her average score. Output the scores of the student in *lettered grade* and determine *class* the student belong as per the table below. [12 Marks]

Score	Grade
70 and above	A
60-69	B
50-59	C
45-49	D
40-44	E
0-39	F

Average Score	Class
70 and above	First
60-69	Second Class Upper
50-59	Second Class Lower
45-49	Third Class
40-44	Pass
0-39	Fail

- Write a C program to find the square root of any positive integer. [5Marks]
- Describe program control structure in C with example. [6Marks]
- Mention two logical operators in C with example [4Marks]

Write a C program to compute the value of K factorial (K!). Note that K! is defined as $1 \times 2 \times 3 \times 4 \dots \times K$. [6Marks]

Define array? Hence give example of array declaration in C. [4Marks]

Write a C program to find the square of numbers between 1 to 20. [5Marks]

What do you understand by C functions? Write the syntax of C function definition. [5Marks]

b. Write C functions that perform addition, subtraction, multiplication and division of any two integers. [10Marks]

5a. What is a structure? [2 Marks]

b. With appropriate data type, write a C structure that has the following members:

- i. name
- ii. surname
- iii. age
- iv. gender

[5Marks]

c. Write a C program to compute the commission a salesman receives when he/she makes the following sales.

Sales	Comm
Greater than ₦100,000	20%
Greater than ₦ 50,000 and less than ₦ 100,000	15%
Greater than ₦ 30,000 and less than ₦ 50,000	10%
Less than ₦ 30,000	No commission

[8Marks]

6a. Define the following terms:

- i. String
- ii. Identifier
- iii. Program control
- iv. Enumeration constant
- v. Union
- vi. Array
- vii. Subscript

[7Marks]

b. Write a C program to find the highest value given the following inputs 2, 7, 8, 3, 4. [Hint: use array]. [8 Marks]

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