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COLLEGE OF INFORMATICS AND COMMUNICATION TECHNOLOGY  
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING  
2<sup>ND</sup> SEMESTER EXAMINATIONS – 2010/2011

IS 136: Programming in C

Date: 21<sup>st</sup> July 2011

Duration: 2 Hours

Instructions

1. This examination is divided into two sections; A and B.
2. Answer ALL questions in Section A and ANY THREE from Section B
3. Section A carries 24 marks and Section B carries 36 marks making up a total of 60.
4. This examination paper consists of two printed pages

Section A

Q 1: Provide the Output for each of the following

(1.5 marks each)

- a. `char user[] = "Russianmob"; char suspect[] = "Habiyb Marwan"; /*UE 2011*/  
strcpy(suspect, user); printf ("%d", strlen(suspect));`
- b. `int x = 12; int y = 2; int n = 7; int z; if(n > 8) { if (x > y) z = x; } else z = y;  
printf("%d", z);`
- c. `age = 7; curr = age++; printf("Related to age is %d", curr);`
- d. `char aple[] = "iphone"; char uds[] = "ud"; strcpy(uds, aple); printf("%d",  
strlen(uds));`

Q 2: a. Write the following using if...else statement:

`x < 7? printf("check") : printf("want to check?");` (2 marks)

b. Write the following while loop into a for loop

(3 marks)

★  
`newAge = dob;  
while(newAge < 60){  
salary = 1.1*salary;`

`new Age++  
}`

Q 3: With examples, differentiate between the following

(2 marks each)

- |                               |   |
|-------------------------------|---|
| a) Structures and Unions      | b) Queues and Stacks  |
| c) Global and Local Variables | d) Passing by value and passing by reference in functions implementations |

Q 4: Identify and explain syntax errors in the following program

(5 marks)

```
1. #include <string.h>
2. main(){
3. char name = "Our Exam";
4. FILE *fptr;
5. fptr = fopen("PUTCFILE.txt", "r");
6. for(i=0; i<15; i++)
7. putc(name[i], fptr);
8. fopen(fptr);
9. }
```