

UNIVERSITY OF DAR ES SALAAM

SCHOOL OF INFORMATICS AND COMMUNICATION TECHNOLOGY

COMPUTER SCIENCE UNIT

IS 136 C PROGRAMMING - TEST 1 (50 min)

Attempt all the questions

Qn 1. Explain the following phrases

- A. C is "a strongly typed language". B.C is "Case Sensitive". C. C is actually a free format language

Qn 2. Provide the outputs to each of the following printf functions

- A. `printf("%c %d %f %e %s %d%%\n", '1', 2, 3.14, 56000000., "eight", 9);`

- B. `Z = 13; X = Z++; printf("Related to Z is %d", X);`

- C. `char user[] = "Russian"; char suspect[] = "Habiyy Marwan"; /*I reserve my comments*/
strcpy(user, suspect); printf("%d", strlen(user));`

Qn 3. Using array of structures, write a program that accept values from users and assign them relevant to fill in the table below

	Name	Reg_No	Age_yrs	marks
Student 1 -->	✓	✓	✓	✓
Student 2 -->	✓	✓	✓	✓
Student 3 -->	✓	✓	✓	✓
Student 4 -->	✓	✓	✓	✓

Student Union

```

{ char Name [20];
  char Reg.No [15];
  int Age-yrs;
  float marks;
} Student [4]; main()

```

Qn 4. Identify syntax errors in the following program and briefly explain each of them with reference to line numbers

0: i < 4; i++)

(i=0, & student[i].name)
(i=0, & student[i].reg.No)
(i=0, & student[i].Age-yrs)
(i=0, & student[i].marks)

```

1. #include <stdio.h>
2. main()
3. {
4.   int number, value, k, j;
5.   printf("Please enter the number");
6.   scanf("%d", number);
7.   value = fact(number);
8.   printf("The factorial is %f", value);
9. }
10. int fact(int i)
11. {
12.   j=1;
13.   for (k=2, k<=i, k++)
14.     j=j*k;
15.   return j;
16. }

```

5 5 is 100
7 10 is 10
5, instead

for (k=2, k<=i, k++)
j=j*k;
return j;