UNIVERSITY OF DAR ES SALAAM

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

PROGRAMMING IN C - TEST #1 – 19TH DECEMBER 2021

Duration: 45 minutes

Qn 1: Write down the output for each of the following programs

i).
```c
#include<stdio.h>.
main(){
int varX = 9;
int varY = varX++;
printf("%d, %d",varX, varY);
}
```

ii).
```c
#include<stdio.h>
main(){
int age = 13;
printf("%d", age%4);
}
```

iii).
```c
#include<stdio.h>
main(){
int k;
float factor = 2.5;
for(k=5; k<8;k++)
printf("%0.1f\t",k*factor);
}
```

iv).
```c
#include<stdio.h>
#include<string.h>
main(){
char user[] = "makelele";
printf("%d",strlen(user)-5);
}
```

v).
```c
#include<stdio.h>
#include<string.h>
main(){
int count = 7;
if (count%2!=0)
printf("%d", count+3);
else
printf("%d", count-3);
}
```

Qn 2: With reference to line numbers, identify syntax errors in the following program

```c
1.  #include<stdio>
2.  main()
3.  {
4.  int i, min;
5.  printf("Enter Min");
6.  scanf("%d",&min);
7.  printf("Enter Max")
8.  scanf("%d", &max);
```

1

```
9.   i=min;
10.  while(i<=max);{
11.  printf("%d\t, i);
12.  i++;
13.  }
14.  }
```

Qn 3: Match the concept in the first row with a description in the second row

(i) Compiling (ii) Software categories (iii) Programing language (iv) gets (v) switch
A. An action you do to test the outcome of your source codes
B. A set of vocabularies and grammatical rules for instructing a computer to perform specific tasks
C. It works like printf but used to get all characters
D. Specific language and codes a community of programmers use to communicate
E. It is similar to scanf only that it can even take empty spaces in the middle of a string
F. A select statement for multiple choices controlled through integers and choices as discrete
G. Object oriented software and structural software
H. Converting the human readable source code to machine readable codes
I. An important control for switching from one iteration to the other in a loop
J. System software and application software

ANSWER SHEET

Qn 1

I	Vary $x = 10$, Vary $y = 9$ that is 10, 9
ii	age%4 = 1 that is 1 1 ✓
iii	7 ✗
iv	3 ✓
v	3 4 ✗

⑤

Qn 2

Line #	Error Description
1	The Library is not Complete, .h is missing
8	The Variable (max) is not derived. ✓
8	The Space between is not required. ✗
7.	; is missing (the Function is not declared).
11.	a Semicolon [11] is missing to close in ("%d \t".
4.	; is missing ✗
4	; was not required in (min;) ✗

④

Qn 3

	i	ii	iii	iv	v
	H ✓	J ✓	B ✓	E ✓	8 F ✓

③

3