Institut Universitaire et Stratégique de l'Estuaire

Estuary Academic and Strategic Institute (IUEs/Insam)

Sous la tutelleacadémique des Universités de Dschang et de Buéa.

School: SOFTWARE ENGINEERING__ Lecturer(s): Mr. ATANGANA OTELE Charlie
Course Code: SWE115_ Course Title: INTRODUCTION TO SOFTWARE ENGINEERING
Credits:
Date: _____ Hall: _____ Time: 3 HOURS

Instructions: answer all questions

SECTION A: (8,5 marks)

1. Define the following: software engineering, software paradigm, SDLC, SRS, software life cycle model, quality management system (3marks)
2. state and define four software quality factors (4marks)
3. propose three main requirements of ISO 9001 related to software development (1.5marks)

SECTION B: (5 marks)

1. propose two software life cycle models and give the particularity of each of them (2marks)
2. propose a functional diagram of one of the above mentioned software life cycle model with a brief description (1mark)
3. Propose a topic of your choice and specify the domain in which your software fall in. (1mark)
4. Carefully define two functional and two non functional requirements of the software you intend to develop and justify (1mark).

SECTION C: (6.5 marks)

Let us consider the following C program:

```
main( )
{
int a, b, c, avg;
scanf("%d %d %d", &a, &b, &c);
avg = (a+b+c)/3;
printf("avg = %d", avg);
}
```

1- propose two metrics for software size estimation and define each of them
2-Propose the list of the unique operators
3-Propose the list of the unique operands
4- calculate the Estimated Length
5-calculate the Volume
6-propose two project estimation techniques and define each of them.