**WASAGA ELISHA OPIYO**

**COM/33/17**

**SOFTWARE ENGINEERING II**

**COM 312**

**TAKE AWAY ASSINGNMENT**

a. In software project management discuss two major responsibilities that a project manager shoulders.

* **Project planning**

**Project planning involves estimating several characteristics of a project and then planning the project activities based on these estimations.**

* **Project monitoring and control**

**This involves checking whether the project is going on as per plan or not. If problem is noticed the project manager should take necessary action to solve the problem**

b. Mention and discuss three project management tools.

* **Gantt Chart- this is a popular project management bar chart that tracks tasks across time.**
* **Pert Chart- is a tool that depicts projects as network diagram. It is capable of graphically representing main events of project in both parallel and consecutives way.**
* **Resource histogram- this a graphical tool that contains bar and charts representing number of resources required over time for a project event.**

c. Discuss real world factors affecting maintenance costs.

* **The standard age of any software is considered up to 10 to 15 years.**
* **Older softwares, which were meant to work on slow machines with less memory and storage capacity cannot keep themselves challenging against newly coming enhanced softwares on modern hardware.**
* **As technology advances, it becomes costly to maintain old software.**
* **Most maintenance engineers are newbie and use trial and error method to rectify problem.**
* **Often, changes made can easily hurt the original structure of the software, making it hard for any subsequent changes.**
* **Changes are often left undocumented which may cause more conflicts in future.**

d. Explain the distinction between Re-Engineering process and Reverse Engineering.

* **Re-Engineering process is the investigation and redesign of individual components. It also describe the entire overhaul of a device by taking the current design improving the current aspects of it.**

**Reverse engineering process takes a finished product with the aim of discovering how it works by testing it.**

e. With aid of a diagram, draw a pure waterfall lifecycle.

System Requirement

Software Requirement

Analysis

Program Design

Coding

Testing

Operations

f. List and describe the problem with an unstructured specification.

* **Hard to manage projects- it becomes very hard to manage every stage of the project due to lack of feasibility study where one collects data, considers the problem and come up with a solution.**
* **Expensive projects- building a software through unstructured specification may often turn out to be expensive due to lack of proper plan.**