**COURSE TITLE: Introduction to Software Engineering COURSE STATUS: Core**

**COURSE CODE: CMP 403 COURSE CREDIT: 4**

**Instruction: Answer all the questions**

**Question One**

1. Explain the reason why it is necessary for properly analysis of a software product before development
2. Itemise any six programming controls that are available in VB 6 environment.
3. You have been asked to be the core developer for a small payroll application at Digitizer Technologies, Ibadan. The said application is expected to be able to calculate the netpay of each employee using the formula:

**Netpay=BasicSalary+HousingAllowance+MedicalAllowance-Pension-Tax**. Design and develop a desktop-based Visual Basic 6 Application to compute the netpay where

**HousingAllowance=6% of BasicSalary**

**MedicalAllowance=8% of BasicSalary**

**Pension=12% of BasicSalary**

**Tax=4% of BasicSalary**

1. Why is it important for software project handlers to meet and document their software development plans early enough?

**Question Two**

1. Explain in detail “Waterfall Model” as a software development methodology
2. Write short note on Cost Benefit Analysis as it is applied in a software development project
3. Write extensively on the benefits and limitations of Computer Aided Software Engineering (CASE) tools
4. You have been directed by your boss to develop a small Java application that can be used to find the value of Q provided that **Q= 13m-6y+14**

**20k**