NATIONAL OPEN UNIVERSITY OF NIGERIA
PLOT 91, CADASTRAL ZONE, NNAMDI AZIKIWE EXPRESSWAY, JABI - ABUJA
FACULTY OF SCIENCE
OCTOBER/NOVEMBER 2016 EXAMINATION

COURSE CODE:	**CIT734**
COURSE TITLE:	**OBJECT ORIENTED TECHNOLOGY**
CREDIT UNITS:	**3**
TIME ALLOTED:	**2 HOURS, 30 MINUTES**
INSTRUCTION:	***Answer any FIVE questions. Cordless nonprogrammable calculators may be used.***

CIT 734 –

INSTRUCTION: ***Answer any five questions out of Seven***

1. (a) Briefly explain the concept of Object-Oriented Programming (OOP).
   (b) Compare a **class** and an **object** with clear examples.
   (c) Briefly describe what a **method** is and describe **four** of its components.

2. (a) Briefly, using examples distinguish between **abstraction** and **encapsulation**
   (b) Explain the concept of **polymorphism**.
   (c)Briefly explain what **inheritance** is using an example to illustrate.

3. (a) Briefly distinguish between an **algorithm** and a **program**.
   (b) Describe **two** programming techniques other than OOP.
   (c) Write down the main advantages of object-oriented programming over other techniques.

4. (a) Briefly describe the main phases of Software Engineering.
   (b) Briefly explain five desirable **qualities** of a **software product**.
   (c) Write short notes on the following:
      i. **Data abstraction**
      ii. **Modularity**

5. (a) Briefly describe the **Waterfall** model of the Software Development Life Cycle (SDLC).
   (b) Write a brief note on programme **documentation** listing **three** baseline specifications.
   (c) Briefly explain what **requirement analysis and specification** represents in a software development project.

6. (a) Explain clearly **the Non-Formal View** of Object Oriented Design (OOD).
   (b) Write down **four** characteristics of Non-formal OOD
   (c) List **four** advantages of **OOD solutions** in comparison with other structured analysis/design methodologies.

7. (a) Briefly describe explain **Booch's approach** to Object Oriented Analysis and Design (OOAD)

(b) Compare **any four** OOAD methodologies in terms of Proprietary nature, Type, Scope, Strength and Primary Applications/ Market.

(c) Mention **four** guidelines you would adopt in ***identifying potential classes*** in a software development process.