NATIONAL OPEN UNIVERSITY OF NIGERIA,

PLOT 91, CADASTRAL ZONE, UNIVERSITY VILLAGE, JABI – ABUJA

FACULTY OF SCIENCES

2021_1 EXAMINATION

COURSE CODE: CIT 703

COURSE TITLE: INFORMATION TECHNOLOGY AND SOFTWARE DEVELOPMENT

TIME: 2 HOURS 30 MINUTES

CREDIT: 3 UNITS

INSTRUCTION: ATTEMPT 5 QUESTIONS. QUESTION1 IS COMPULSORY AND ANY OTHER FOUR (4) QUESTIONS

Question One

1a. Explain Software Testing? **2 marks**
1b. Outlines four (4) difference between black-box and white-box testing **2 marks**.
1c. Mention and explain four (4) reasons why we need software development lifecycle **4 marks**
1d. Lists and explain four (4) V&V approaches applicable to software products **4 marks.**
1e. Identify three (3) characteristics of Extreme Programming (XP). **3 marks**.
1f. Identify three (3) benefits of using flowchart **3 mark.**

(g) Outline four (4) benefits of software testing and quality assurance? 2 **marks.**

(h). Describe software evolution? **2 marks.**

Question Two

a. Describe the following concepts in software project planning (i) Work breakdown (ii) Task allocation (iii) Guesstimation **6 marks**
b. Describe two key major approaches that helps during quessstimation **4 marks.**
c. Describe two (2) key elements of project planning **2 marks**.

Question Three

a. Explain Software Project **3 marks**
b. As a young graduate of a Computer Science employed by an IT company based in Lagos State to Manage Software Project. List your responsibilities as a project Manager who may never directly involved in producing the end product but control and manages the activities involved in production of software products. **5 marks**.

c. State and explain two (2) types of software evolution. **4 marks.**

Question Four

a. State and explain the four (4) significant principles of Object Oriented Programming Languages **4 marks**

b. Describe four (4) difference between Inheritance and Polymorphism **4 marks.**

c. identify two (2) benefits of Aggregation in Object Oriented Programming Languages **2marks.**

d. Explain Software life cycle model **2 marks**

Question Five

a. Describe the term software maintenance **3 marks**

b. State and explain three (3) types of software maintenance **6 marks**

c. Who is a system analyst **3 marks**?

Question Six

a. Describe software process model **2 marks.**

b. Outlines (4) fundamental activities that are common to all software processes **4 marks**

c. Identify four (4) commonly used software process models **2 marks**.

d. State and explain four (4) myths about software testing **4 marks.**