



OLABISI ONABANJO UNIVERSITY, AGO-IWOYE
COLLEGE OF ENGINEERING AND ENVIRONMENTAL STUDIES
FACULTY OF ENGINEERING

DEPARTMENT OF COMPUTER ENGINEERING
2020/2021 HARMATTAN SEMESTER EXAMINATION

COURSE CODE: CPE 501

COURSE TITLE: INTRODUCTION TO SOFTWARE ENGINEERING

COURSE UNIT: 3

INSTRUCTION: ANSWER QUESTIONS 1 AND ANY OTHER 3 **TIME ALLOWED:** 2 HOURS

QUESTION ONE

- ai. Explain briefly the term Software? **3 Marks**
 ii. Describe the attributes of a good software. **4 Marks**
 bi. Explain Software Engineering in terms of features it must possess? **4 Marks**
 ii. Briefly describe why software engineering methods are needed. **4 Marks**
 c. A project schedule is given below; **0** **M** **P**

Activity	Precedents	Optimistic Time	Most likely Time	Pessimistic Time
A		3	5	7
B	A	12	14	22
C	B	22	25	28
D	B	10	15	20
E	B	25	30	35
F	C, D	8	10	12
G	E, F	8	9	16
H	G	3	5	7

- i. Prepare a PERT network diagram using Activity on Node convention. **8 Marks**
 ii. Identify the critical path and the critical time. **2 Marks**

QUESTION TWO

- a. Explain briefly the "Software Development Life Cycle". **3 Marks**
 b. Describe the activities involved in SDLC. **8 Marks**
 c. Discuss the categories of software system requirements. **4 Marks**

QUESTION THREE

- a. Give detailed explanation with appropriate diagrams, stating two advantages and disadvantages each of the following Software development models; **10 Marks**
 i. Waterfall ii. Iterative Model iii. Spiral Model iv. Prototyping Model
 b. Explain Requirement Engineering in software engineering. **5 Marks**

QUESTION FOUR

- a. Requirement Engineering is a four-step process, explain these processes. **6 Marks**
 b. Describe with the aid of flow diagram only the Requirement Elicitation Process. **5 Marks**
 c. List and explain any three (3) requirement elicitation techniques. **4 Marks**

QUESTION FIVE

- a. Explain the term "SRS" and what is the importance of a SRS document? **6 Marks**
 b. What is software design? **3 Marks**
 c. Explain the three software design levels. **6 Marks**

QUESTION SIX

- a. Explain the following terms; i. Modularization ii. Concurrency **4 Marks**
 b. Discuss what is meant by Software Testing? **5 Marks**
 c. What is Software project management? Identify the major components of software project management. **6 Marks**