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UNIVERSITY EXAMINATIONS
2022/2023 ACADEMIC YEAR

SUPPLEMENTARY/SPECIAL EXAMINATIONS
SECOND YEAR SECOND SEMESTER
FOR THE DIPLOMA IN
(INFORMATION TECHNOLOGY)

COURSE CODE: DIT 074

COURSE TITLE: INTRODUCTION TO
SOFTWARE ENGINEERING

DATE: 09/08/2023

TIME: 11.00 AM – 1.00 P.M

INSTRUCTIONS TO CANDIDATES
ANSWER QUESTIONS ONE AND ANY OTHER TWO.

QUESTION ONE (COMPULSORY) [24 MARKS]

- a. Define [6 marks]
- i. software engineering
 - ii. software process
 - iii. SDLC
- b. Give reasons why software Engineering is important [6 marks]
- c. SDLC provides a series of steps to be followed to design and develop a software product efficiently. Highlight these steps. [10 marks]
- d. What is the difference between software engineering and system engineering [2 marks]

QUESTION TWO [18 MARKS]

- a. Software is tested on various levels, discuss levels of testing in software engineering [10 marks]
- b. Discuss the two generic approaches for software design [4 marks]
- c. Distinguish between functional vs nonfunctional requirements? [4 marks]

QUESTION THREE [18 MARKS]

- a. What is software maintenance? [2 marks]
- b. Discuss four types of maintenance [8 marks]
- c. Software documentation provides information about how to use the product. Discuss four types of documents that a well-maintained documentation should have. [8 marks]

QUESTION FOUR [18 MARKS]

- a. What is data flow diagram [2 marks]
- b. Discuss two types of data flow diagram [4 marks]
- c. Discuss and differentiate Waterfall model and iteration model as used in software engineering process [8 marks]
- d. Highlight reasons for the failure of waterfall model [4 marks]

QUESTION FIVE [18 MARKS]

- a. State five characteristics of a project [5 marks]
- b. What are the key challenges facing software engineering today [5 marks]
- c. Outline FOUR quality attributes of a good software [8 marks]