



[Knowledge for Development]

KIBABII UNIVERSITY

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**UNIVERSITY EXAMINATIONS
2020/2021 ACADEMIC YEAR**

**SPECIAL/SUPPLEMENTARY EXAMINATIONS
YEAR THREE SEMESTER ONE EXAMINATIONS**

**FOR THE DEGREE IN
COMPUTER SCIENCE**

COURSE CODE : CSC 314.

COURSE TITLE : MOBILE COMPUTING

DATE: 07/01/2022 TIME: 08:00 A.M – 10:00 A.M.

INSTRUCTIONS TO CANDIDATES

ANSWER QUESTIONS ONE AND ANY OTHER TWO.

QUESTION ONE [COMPULSORY] [30 MARKS]

1. What is Mobile Computing? Or What do you understand by Mobile Computing? [2marks]
2. Describe the two modes of multiplexing used in mobile computing. [4marks]
3. What are the two different types of mobility in Mobile Computing? [4marks]
2. What information is stored on a SIM card? [6marks]
3. Security threats can be divided into various categories. Explain any four [4marks]
4. Define the term routing and explain the two ways in which routes can be learned by routers. [6marks]
5. What do you understand by the term protocol? Give any two examples and their functions [4 marks]

QUESTION TWO [20 MARKS]

1. What are the basic building blocks for Mobile Computing? [2marks]
2. Define the following terms as used in networking: [8marks]
 - i. *Transmission media*
 - ii. *Guided Media*
 - iii. *Unguided Media*
 - iv. *Channel capacity*
3. Explain the different advantages of Mobile Computing? [10marks]

QUESTION THREE [20 MARKS]

1. Discuss Phase Lock Loop (PLL) in Mobile computing and its use. [4marks]
2. Discuss the difference between borrowing channel allocation (BCA) and fixed channel allocation (FCA)? [4marks]
3. State and explain the different components of the Mobile IP? [12marks]

QUESTION FOUR [20 MARKS]

1. Briefly explain the OSI Model. [14marks]
2. Describe the main disadvantages of Mobile Computing over adhoc computing? [6marks]

QUESTION FIVE [20 MARKS]

1. Explain the GSM System Protocol Architecture. [20marks]