



Scott Christian UNIVERSITY

SCHOOL OF PROFESSIONAL STUDIES

BACHELOR OF INFORMATION COMMUNICATION TECHNOLOGY

UNIT CODE/NAME: BCT 415: INFORMATION COMMUNICATION TECHNOLOGY FOR HEALTH CARE SERVICES

September- December 2019/2020 End Semester Exam - Time: 2 Hours

Instructions: Answer Question ONE (Compulsory) and any other TWO Questions.

QUESTION ONE

- a) Define the following terms:
- (i) Information Communication Technology (1 Mark)
 - (ii) Information Systems (1 Mark)
 - (iii) Hospital Information System (1 Mark)
 - (iv) Laboratory Information Management System (1 Mark)
 - (v) Clinical Information System (1 Mark)
- b) Highlight five characteristics that ought to be possessed by information from information systems in the health sector. (5 Marks)
- c) A health information system (HIS) refers to a system designed to manage healthcare data. Discuss four major drivers to the design and development of this health information systems. (8 Marks)
- d) Highlight four benefits of having each of the following information systems.
- i) Laboratory Information Management System (4 Marks)
 - ii) Health Information System (4 Marks)
 - iii) Clinical Information System (4 Marks)

QUESTION TWO

- a) Discuss four factors that have contributed to a lack of integration in Health Information System Security. (8 Marks)
- b) Due to risk associated to Electronic Health Records it is vital to assure privacy of the patients. Explain the security and issues associated with accessing or transacting Electronic Health Records. (7 Marks)

QUESTION THREE

- a) Identify four types of information that needs to be protected in health information systems. (4 Marks)
- b) Highlight four privacy rights owned by patients over their data in health information systems. (4 Marks)

QUESTION FOUR

- a) Jane, a networks administrator with a leading Networking firm in Kenya would like to implement network security in a network. Explain five network security techniques that she could use. (5 Marks)
- b) Elaborate on any five network security monitoring tools. (10 Marks)

QUESTION FIVE

- a) Outline three typical requirements of a secure distributed system. (3 Marks)
- b) Explain how a man-in-the-middle attack on a Wi-Fi network can be defeated. (4 Marks)
- c) An ideal password authentication scheme has to withstand a number of attacks. Describe three of these attacks. (6 Marks)
- d) Briefly explain the principle of least privilege in network security. (2 Marks)