



PAN AFRICA CHRISTIAN UNIVERSITY

BACHELOR OF BUSINESS INFORMATION TECHNOLOGY

END OF TERM EXAMINATION

DEPARTMENT: COMPUTING & INFORMATION TECHNOLOGY

COURSE CODE: BIT 205

CAMPUS: ROYSAMBU

COURSE TITLE: DATA COMMUNICATIONS

EXAM DATE: DD MM 2020

TIME: START HOUR – END 17:30-19:30 HRS

INSTRUCTIONS

- This exam script has **TWO (2)** sections.
- Read all questions carefully before attempting.
- Answer All questions in Section **A** and any other THREE questions in Section **B**.
- None programmable calculators permitted
- Calculators on phones, tablets and computers are NOT permitted in Theory Papers

SECTION A

(Answer ALL questions in this section)

QUESTION ONE

- a) Explain any THREE effects of data communication in our contemporary life

(3

Marks)

- b) Explain the significance of communication protocols in Data transmission infrastructure

(4 Marks)

- c) Explain any THREE data encoding techniques

(3 Marks)

SECTION B

(Answer any THREE (3) questions in this section)

QUESTION TWO

- a) Distinguish between Synchronous and Asynchronous Transmission modes.

(4

Marks)

- b) Describe any THREE causes of transmission impairment.

(6 Marks)

QUESTION THREE

- a) Differentiate between analog and digital data representation. **(4 Marks)**

- b) Giving examples, distinguish between guided and unguided transmission media.

(6

Marks)

QUESTION FOUR

- a) Explain the rationale for multiplexing in data transmission.

(2 Marks)

- b) Distinguish between any TWO Multiplexing techniques used in data communication

(4 Marks)

- c) Explain the TWO main switching mechanisms used in data communication

(4

Marks)

QUESTION FIVE

- a) Any WAN connection type uses a WAN technology to encapsulate traffic while it crosses the WAN link. Explain the following technologies.

i. Dial-up

(2 Marks)

ii. Frame Relay

(2 Marks)

- b) Amina intends to set up a network. She has 20 computers located in her two offices. Between the Ring and the Star physical topologies, advise her on which one to use and give three reasons for your answer?

(6 Marks).

QUESTION SIX

- a) Explain any THREE types of errors found in data communication **(6 Marks)**
b) Distinguish between CSMA/CD and CSMA/CA. **(4 Marks)**

End of Exam

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