ZIMBABWE EZEKIEL GUTI UNIVERSITY

FACULTY OF HEALTH, SCIENCE AND TECHNOLOGY

DEPARTMENT OF DIGITAL TECHNOLOGY

EXAMINATION PAPER

COURSE CODE	:	CDT206
COURSE TITLE	:	Data Communications and Networks
DURATION	:	3 Hours
LEVEL	:	2.2
DATE	:	August 2021

ZIMBABWE EZEKIEL GUTI UNIVERSITY
EXAMINATIONS OFFICE
19 AUG 2021
1901 BARRACS ROAD BULAWAYO
P. O BOX 350 BULAWAYO
Email. examinations@zegu.ac.zw

INSTRUCTIONS TO CANDIDATES:

1. There are five questions in this paper
2. Each question carries 25 marks
3. Answer ANY 4 questions.

20 B AM

Question One

(a) Define network protocol. (2)

(b) List seven layers of the OSI Model (7)

(c) From the seven OSI Model layers pick four and explain their function (16)

Question Two

a) Giving all details, explain **two** differences between ring and bus network topologies. (6)

b) With the aid of a diagram, describe the TCP/IP layer model. (6)

c) Compare and contrast the OSI Model and the TCP/IP layer model (13)

Question Three

a. Data communication infrastructure for long distance data transfer include microwave, and radio transmission. Discuss the advantages and disadvantages of each of these media, in terms of cost, political impact, ease of installation and adaptability in providing a range of services to clients. (10)

b. In every form of communication there are common elements. Identify and explain five components that makes up a communication. (15)

Question Four

a. What is a collision? (1)

b. What is the difference between deadlock and starvation? (4)

c. Suppose you were asked to set up a network that connects a Bindura based agro-processing plant with clients in South Africa. Identify at least 5 networking devices you need in order to achieve this. You must also fully explain the purpose served by each of the 5 devices you choose (20)