

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

FIRST YEAR EXAMINATION FOR THE AWARD OF  
BACHELOR OF COMMERCE

COSC 105: COMPUTER APPLICATIONS IN BUSINESS

STREAMS: BCOM (Y1S2)

TIME: 2 HOURS

DAY/DATE: FRIDAY 09/7/2021

8.30 A.M. – 10.30 A.M.

**CANDIDATE'S INSTRUCTIONS:**

- Answer QUESTION ONE and any other TWO questions.
- This is a CLOSED BOOK exam. No reference materials are allowed in the exam room.
- No mobile phone is allowed in the exam room (*make sure to switch it off and leave it with the invigilator if you carried one*).
- Write your answers legibly and use your time wisely

**SECTION A (COMPULSORY) [30 MARKS]**

**QUESTION ONE (COMPULSORY) [30 MARKS]**

(a) Define the following terms:

- |                           |           |
|---------------------------|-----------|
| (i) Computer network      | (2 marks) |
| (ii) Information security | (2 marks) |
| (iii) Computer software   | (2 marks) |
| (iv) Byte                 | (2 marks) |

(b) Discuss the differences in functionalities between RAM and hard drive of a computer system. (4 marks)

(c) Discuss at least Two differences between LAN and WAN types of computer networks (4 marks)

(d) Outline at least THREE benefits that a business can gain from using Social Media Platforms such as Facebook, Twitter and Instagram (6 marks)

(e) Perform the following operations (show your working)

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- i) Convert  $11001101_2$  to decimal. (2 marks)
- ii) Convert  $1000_8$  to binary. (2 marks)
- (f) Give two examples of system software and two examples of application software. (4 marks)

### SECTION B (ANSWER ONLY TWO QUESTIONS FROM THIS SECTION)

#### QUESTION TWO [20 MARKS]

- a) (i) What is a network topology? (2 marks)
- (ii) With a suitable diagram, describe any THREE types of network topologies. (9 marks)
- b) Define the following terms as used in computer networks :
- i) IP Address (2 marks)
- ii) Domain Name (2 marks)
- c) Outline at least FIVE various methods/ways /techniques an organization can put in place to protect its systems (5 marks)

#### QUESTION THREE [20 MARKS]

- a) i) Define E- Commerce (2 marks)
- ii) Discuss any FOUR business models of E-commerce. (8 marks)
- b) Explain any FIVE benefits a microfinance institution will gain by implementing a computer network infrastructure within their premises. (10 marks)

#### QUESTION FOUR [20 MARKS]

- (a) Use the MS Excel sheet shown below to answer the questions that follow:

	A	B	C	D	E	G	H
1	<b>Admission Number</b>	<b>Name</b>	<b>MATH</b>	<b>COMPUTER</b>	<b>ENGLISH</b>	<b>AVERAGE</b>	<b>GRADE</b>
2	A1/2021	Carlos	80	78	84		
3	A2/2021	Linda	67	75	90		
4	A3/2021	Aguero	98	83	65		
5	A4/2021	Chloe	89	66	77		
6	<b>Max</b>						
7	<b>Min</b>						
8	<b>Total</b>						

- a) Write the formula for the following :

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- i) The totals for Math, Computer and English for each display (3 marks)
- ii) The average for Each of the students (4 marks)
- iii) The Maximum for Math, Computer and English for each display (3 marks)
- iv) The Minimum for Math, Computer and English for each display (3 marks)
- v) Suppose we have a grading system where average scores for each student are graded as follows :
  - A : 70-100
  - B : 60-69
  - C : 50-59
  - D : 40-49
  - E : < 40

Develop a Nested IF function to automatically generate the grades for each of the students. (7 marks)

### QUESTION FIVE [20 MARKS]

- (a) State and explain any **FIVE** uses of the internet as requirement for starting a Small and Medium Enterprise(SME) (10 marks)
  - (b) Explain at least **FIVE** Roles Big Data is playing in shaping and influencing how business is done currently in the world. (10 marks)
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