CHUKA   **UNIVERSITY**

UNIVERSITY EXAMINATIONS

**FIRST YEAR EXAMINATION FOR THE AWARD OF
BACHELOR OF COMMERCE**

COSC 105: COMPUTER APPLICATIONS IN BUSINESS

STREAMS: BSC. COMP   **TIME: 2 HOURS,,**

DAY/DATE: THURSDAY 25/03/2021   **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: [6 marks]

    (i)   Computer systems

    (ii)   Bit

    (iii)   Internet

(b) Differentiate between the following;   [4 marks]

    i) Computer Software and Computer hardware

    ii) Systems software and application software

(c) With the aid of a well labeled diagram, explain the basic functional components of a computer system.   [6 marks]

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

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

    i) Convert 147_{10} to binary.   [2 marks]

    ii) Convert 1050_{8} to decimal.   [2 marks]

(f) Describe why a word processing application is important to an organization and state any two word processing software application you would recommend for use.   [4 marks]

(g) Classify the following applications as either system software or application software.

                                                            [2 marks]

    i)   Microsoft Excel

    ii)   Linux

    iii) Internet Explorer

    iv) Adobe reader

SECTION B (ANSWER ONLY TWO QUESTIONS FROM THIS SECTION)
QUESTION TWO [20 MARKS]

    (a) Explain the importance of the following communications protocols.   [4 marks]

        i) TCP/IP

        ii) http

    (b) Discuss any THREE social impacts of the internet.   [6 marks]

    (c) You are the head of a local Network consulting company. Your company has won a contract to design and develop a network for a middle level college in Chuka. Explain five benefits the college will gain by implementing the network.   [10 marks]

QUESTION THREE [20 MARKS]

(a) In Kenya vision 2030, explain how knowledge on the use and importance of computers can be used to:

    i) Reduce corruption on our Kenyan roads.   [3 marks]

    ii) Enhance national cohesion and integration.   [3 marks]

    iii) Enhance free and fair elections.   [3 marks]

(b) What is a search engine? Explain the importance of this facility in conducting research. Give relevant examples.   [4 marks]

(c) In computer networks, explain what communications media is. Explain the two major types of communications media and give at least two examples of each.   [7 marks]

QUESTION FOUR [20 MARKS]

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

I18	f_x					
	A	B	C	D	E	F	G
1	student Name	Courses			Total Score	Average Score	Average Grade
2		COMP 101	COMP 102	COMP 103			
3	Gladys	65	45	48	158	#DIV/0!	
4	Kimaita	67	69	64		66.66666667	#NAME?
5	Chepkorol	45	70	55		56.66666667	
6	Kionyo	68	35	46		49.66666667	
7	Bob	90	56	89		78.33333333	
8	Gilbert	78	53	43		58	
9	Subject Average Score	69	55	#NAME?	#REF?		
10							
11		Grading System					
12		70 - 100	A				
13		60 - 69	B				
14		50 - 59	C				
15		40 - 49	D				
16		<40	F				

i. Explain the possible causes of errors in the cells G4, E9, and F3. [6 marks]
ii. Write a function to round the average score in cell F4 to 2 digits. [2 marks]
iii. Using the grading system provided above, explain whether to get the average grade of student you will use a simple IF function or an embedded IF function. [2 marks]
iv. Write a formula to calculate the total score of Bob. [2 marks]

(b) Using relevant illustrations, explain any four (4) functions of the operating system software in a computer system. [8 marks]

QUESTION FIVE [20 MARKS]

(a) Explain any **five** symptoms of a computer infected by virus. [10 marks]

(b) State and explain any five factors that you would consider when acquiring business software. [5 marks]

(c) Explain the importance of passwords in computing and possible ways of keeping your passwords safe. [5 marks]