THE UNITED REPUBLIC OF TANZANIA
NATIONAL EXAMINATIONS COUNCIL OF TANZANIA
ADVANCED CERTIFICATE OF SECONDARY EDUCATION EXAMINATION

137 INFORMATION AND COMPUTER STUDIES

Time: 3 Hours **Year: 2020**

Instructions

1. This paper consists of sections A and B with a total of **ten (10)** questions.
2. Answer **all** questions in section A and **one (1)** question from section B.
3. Section A carries **eighty (80)** marks and section B carries **twenty (20)** marks.
4. Cellular phones, calculators and any unauthorized materials are **not** allowed in the examination room.
5. Write your **Examination Number** on every page of your answer booklet(s).

LIBRARY
TEACHERS COLLEGE
KOROGWE
BOX 532-KOROGWE
TANGA



SECTION A (80 Marks)

Answer **all** questions in this section.

1. (a) Why a smart phone is an example of a computer? Give three points. **(6 marks)**

   (b) Explain how RAM, ROM and CPU interact with each other during the booting process of the computer system. **(4 marks)**

2. The following part of the worksheet shows the computer items supplied by a King Investment Company (KIC). Study the worksheet carefully and answer the questions that follow:

	A	B	C	D	E	F	G
1							
2		S/N	Item	Quantity	Unit price	Total item price	
3		1	Power Supply	3	15000		
4		2	Hard disk drive	6	320000		
5		3	Flash disk	17	25000		
6		4	Keyboard	7	10000		
7					Sub Total		
8					VAT		
9					Grand Total		
10							

KOROGWE TEACHERS COLLEGE
BOX 522-KOROGWE
TANGA

   (a) Which steps would you follow to bold the numbers in the column S/N? **(1 mark)**

   (b) What are the two formatting features applied in the cells containing the words Sub Total, VAT and Grand Total? **(2 marks)**

   (c) What is the cell reference of the following terms?
   (i) VAT
   (ii) Hard disk drive
   (iii) Quantity
   (3 marks)

   (d) What formula can you use to calculate the total price per unit of the item power supply and VAT which is 18% of Sub Total? **(4 marks)**

3. The headmaster of Fijo secondary school is encouraging his teachers to use Multimedia system in teaching and learning processes in order to facilitate effective students' interaction with the learning materials. As an IT expert, if you were consulted to propose the good multimedia system;

   (a) What are the six minimum requirements would you propose for Fijo secondary school? **(6 marks)**

(b) What are the four characteristics of a good multimedia system that you would recommend to Fijo secondary school management? **(4 marks)**

4. (a) Why integrity and confidentiality are important features in data security? **(2 marks)**

(b) How can you differentiate adware from spyware as applied in computer network security? **(2 marks)**

(c) Suppose you are typing an assignment in a college computer laboratory and you discover that all computers cannot open/save some files and display pop-up windows when commanded to open. As an IT expert;

(i) state two possible causes of the stated problems. **(2 marks)**

(ii) suggest four measures that should be taken to prevent these problems. **(4 marks)**

5. Akiba secondary school is organizing a fundraising for her PCCB group. The school wants to create an invitation card for the event. As an IT expert;

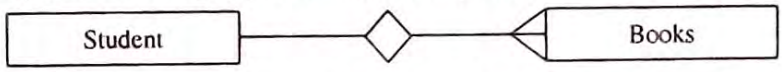
(a) suggest application software that would be used to create cards. Give an example. **(1.5 marks)**

(b) identify a hardware that can be used to insert a photo in a card. **(0.5 mark)**

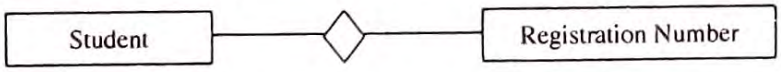
(c) briefly explain four features to be considered in order to create quality cards. **(8 marks)**

6. (a) Identify the following types of relationships as used in database design. **(1 mark)**

(i)



(ii)



(b) How do the relationships given in part (a) differ from each other? **(1.5 marks)**

(c) When a database design is not perfect, it becomes a bad dream to a database administrator. As an expert, identify the forms of normalizations in Figure 1, 2 and 3 by giving one reason. **(7.5 marks)**

(i)

Course	Content
Programming	Java, C++
Web development	HTML

→

Course	Content
Programming	Java
Programming	C++
Web development	HTML

Figure 1

LIBRARY
KOROGWE TEACHERS COLLEGE
P.O.BOX 538-KOROGWE
TANGA

(ii)

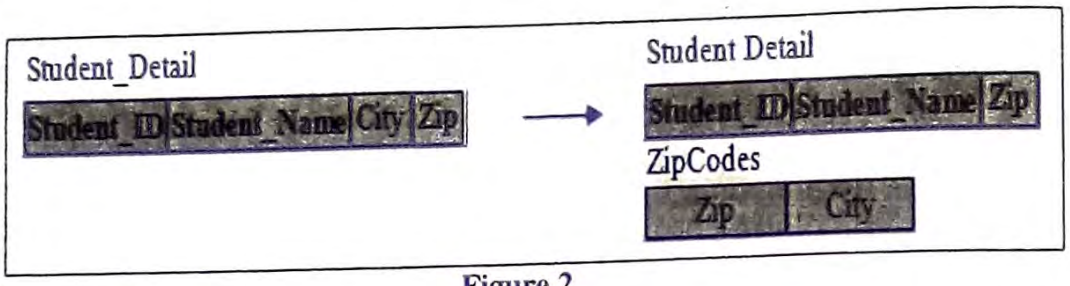


Figure 2

(iii)

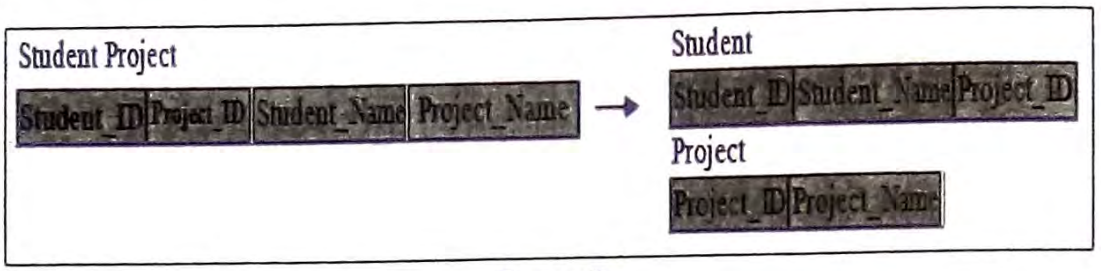


Figure 3

7. (a) What hardware requirements will you suggest for a computer to be used as a multimedia studio? Describe three items to support your answer. **(3 marks)**

(b) Bongo Movie is planning to establish a multimedia studio using High Definition (HD) for recording, editing and duplicating movies: As an IT expert;

(i) explain the concept of High Definition. **(1 mark)**

(ii) briefly describe the criteria for determining High Definition video. Give two points. **(4 marks)**

(iii) describe two benefits of using High Definition in movie making. **(2 marks)**

8. Mr. Jobs who is an ICS teacher at ABC College assigned you to design and develop a simple webpage which displays the page titled assignment, italicized text "Welcome to My Page" with grey background colour and moving from left to right.

(a) What are the two major types of text editor compatible with Microsoft windows operating system which can be used to write the website codes? **(2 marks)**

(b) Using the information given in the question, develop a webpage using html codes. **(5 marks)**

(c) What programs would you use to view the webpage? Name three. **(3 marks)**

LIBRARY
TEACHERS COLLEGE

SECTION B (20 Marks)

Answer **one** (1) question from this section.

9. Computers have intense application in almost all sectors of work known to human being. However, computer application sometimes brings desirable and undesirable effects. Justify this statement by giving three desirable and three undesirable effects of computer application to human health. **(20 marks)**

10. You have been invited to educate ICS students on the evolution of programming languages. As an ICS teacher, analyze five generations of computer programming language which will be included in your presentations. **(20 marks)**

LIBRARY
KOROGWE TEACHERS COLLEGE
BOX 533-KOROGWE
TANGA