2920/102B
COMPUTER APPLICATIONS I (PRACTICAL)
Paper 2
July 2022
Time: 1 hour

THE KENYA NATIONAL EXAMINATIONS COUNCIL

DIPLOMA IN INFORMATION COMMUNICATION TECHNOLOGY I

MODULE I

COMPUTER APPLICATIONS I (PRACTICAL)

Paper 2

1 hour

INSTRUCTIONS TO CANDIDATES

*You have **Ten** minutes to read through the instructions and questions before starting the examination.*
Any problem with the computer should be reported to the invigilator immediately.
Direct any question(s) to the invigilator only. Conversing with fellow students may lead to disqualification.
*Write your **name** and **index number** on the answer booklet and the rewritable CD.*
*This paper consists of **four** tasks. Perform any two tasks.*
Read the instructions of each task carefully.
Print on one side of the paper(s) only and use a fresh sheet of paper for each task.
*Hand over your **printout** and the **rewritable CD** to the supervisor at the end of the examination.*
Candidates should answer the questions in English.

This paper consists of 10 printed pages.

Candidates should check the question paper to ascertain that all the
pages are printed as indicated and that no questions are missing.

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Turn over

TASK 1

(a) (i) Open a word processing program and create the following document as it appears. Save the document as *Cleanliness* in the **KNECEXAM** folder.   (17 marks)

CLEANLINESS

C leaning our environment is the best thing to do in order to stay hygienic and control the spread of pests and diseases. This can be achieved through sanitizing, disinfecting and sterilizing objects and surfaces.

Meaning of terms

Sanitization ~~(cleaning)~~ – This is a process of washing, cleaning or removing dirt, and eliminating dust, debris and germs on the surface.

Disinfection – This is a method of destroying unhealthy microorganisms and removing most organisms present on the surface, so that they cannot pass on infections.

Sterilization – This involves handling and killing of all microbial and forms of bacteria, fungi, and viruses present on an object's surface.

Sanitizing agents come in various forms; liquids, sprays, powders or granules. They are mainly used in areas such as the kitchen, dining area, office desk and playroom.

For disinfectants, one can use phenol, chlorine bleach, or hydrogen peroxide. Places that require to be disinfected in a home is typically toilets, swimming pools, sinks and diaper change areas.

Sometimes sterilization, illumination, application of heat ~~or high pressure~~, filtration, and/or using chemicals is required. This is primarily done when there are elderly or where home healthcare is required. Additionally, nail clippers, pedicure files and syringes must also be regularly sterilized.

Cleaning, disinfecting, and sanitizing are part of a broad approach to preventing infectious diseases. Though these terms are often used interchangeably, it is important to note that they are actually quite different.

There are various disinfectants in the market today. The table below shows some of them.

EXAMPLES OF DISINFECTANTS

	DISINFECTANTS	EXAMPLES
Type	Category	
LIQUID	Quatemary Ammonium	A-33, CDQ
LIQUID	Chlorine	Chloramine,
LIQUID	Formaldehyde	Sterac, CH_2O
GAS	Ethylene	Carboxide CO_3^{2-}
GAS	Formaldehyde	

(ii)   Apply *a first line indentation* format to the last paragraph.   (½ mark)

(iii)   Apply Justify alignment to text in the two columns.   (½ mark)

(b)   Insert the following in the document created:

    (i)   a header with the text *Cleanliness* appearing at the top left of the pages;   (½ mark)

    (ii)   page numbers as footer.   (½ mark)

(c)   Save the changes to print out later the document.   (1 mark)

TASK 2

Figure 1 is a spreadsheet extract showing marks attained by students. Use it to answer the questions that follow.

	A	B	C	D	E
1	Student Name	Gender	Test (20)	Assignment (100)	Exam (50)
2	Kennedy	M	17	70	32
3	Mary	F	7	53	25
4	Susan	F	15	76	33
5	Gloria	F	12	62	28
6	Stephen	M	8	79	37
7	Francis	M	13	54	26
8	Harriet	F	16	64	28
9	Timoh	M	14	80	40

Figure 1

(a) (i) Open a spreadsheet program and key in the data in sheet1 as it appears in figure 1. Save the workbook as *marks* in the **KNECEXAM** folder. (4½ marks)

   (ii) Rotate the column headings by an angle of 45^0. (½ mark)

(b) (i) Insert a column between column D and Column E and type the text "Course work" as its column heading. (1 mark)

   (ii) Type the text "Exam(60)" in cell G1. (½ mark)

   (iii) Type the text "Final Mark" in cell H1. (½ mark)

(c) Use the following instruction to answer the questions that follow:

   • *Course work marks = CATs added to Assignments and converted to 40% of final mark*
   • *Exam(60) = Exam(50) converted to 60% of the final mark*
   • *Final mark = sum of Course work and Exam(60)*

   Using a function and cell references only, compute each of the following for each student:

   (i) course work marks; (2 marks)

   (ii) final mark. (1 mark)

(d) (i) Copy the contents of sheet1 to sheet2 and rename sheet2 as *Grades*. (1 mark)

   (ii) In Grades sheet, insert a row above row1 and merge the cell range A1:H1. (1 mark)

   (iii) Type the text "MODULE 1 EXAM RESULTS" in the merged cell. (½ mark)

   (iii) Sort the table ordered by Student Name in alphabetical order. (1 mark)

(e) (i) Type the text "Grade" in cell I2. (½ marks)

   (ii) Using the final mark, use the IF function to grade the students as follows: (3 marks)
        0- 49=F; 50 - 64=C; 65 - 79=B; 80 - 100=A

(f)   Insert an embedded bar chart that compares *Course work* and *Final Mark* for all the students. Type the chart title as *Comparison*.   (2 marks)

(g)   Save the changes to print out later each of the following:

   (i)   Sheet1;

   (ii) Grade Sheet.   (1 mark)

TASK 3

(a)   (i)   Open a database program and create a database file named *PatientAdmissions* in the
             KNECEXAM folder.   (1 mark)

      (ii)   Create the following tables in the database file created in (i) using the specified field
             properties. Save the tables as *Patients*, *Admission* and *Diagnostics* respectively.
                                                                                        (4 marks)

Patients table

Field Name	Data Type	Field Properties
PatientID	Text	Field size=10
PatientName	Text	Field size=50
DateofBirth	Date/Time	Short Date
Town	Text	Field size=50

Admissions table

Field Name	Data Type	Field Properties
AdmissionID	Text	Field size=10
PatientID	Text	Field size=10
DiagID	Text	Field size=50
AdminDate	Date/Time	Short Date
DischargeDate	Date/Time	Short Date

Diagnostics table

Field Name	Data Type	Field Properties
DiagID	Text	Field size=50
Description	Text	Field size=50
Cost	Currency	Standard

      (iii) Create appropriate relationships between the tables.   (1 mark)

      (iv)   Create a form named *frmadmin* that could be used to enter data in the admissions table.
                                                                                        (½ mark)

                                                                                        (4 marks)

(b)   Enter the following data into their respective tables.

Patients Table

PatientID	PatientName	DateofBirth	Town
AB3021	Janet	09/07/2007	Nairobi
AB3022	Parto	06/22/1989	Nakuru
AB3023	Nancy	05/10/1963	Eldoret
AB3024	Mary	03/29/1985	Nairobi
AB3025	Christine	04/22/2020	Nyeri
AB3026	Henry	01/01/2000	Kericho
AB3027	Francis	05/17/2009	Mombasa
AB3028	Kevo	12/25/2015	Kitale

Admissions Table

AdmissionID	PatientID	DiagID	AdmissionDate	DischargeDate
AD4001	AB3027	D004	02/03/2020	09/03/2020
AD4002	AB3021	D002	04/4/2020	08/04/2020
AD4003	AB3025	D005	12/13/2020	12/20/2020
AD4004	AB3022	D001	03/26/2020	03/31/2020
AD4005	AB3023	D004	05/05/2020	10/05/2020
AD4006	AB3024	D003	08/08/2020	08/15/2020
AD4007	AB3025	D001	05/06/2020	06/22/2020
AD4008	AB3026	D002	10/28/2020	10/31/2020
AD4009	AB3028	D001	04/04/2020	04/15/2020

Diagnostics Table

DiagID	Description	Cost
D001	Malaria	Ksh.6000
D002	Influenza	Ksh.3500
D003	Tooth decay	Ksh.5000
D004	Diabetic	Ksh.2500
D005	Ashma	Ksh.5500

(c) Create a query that would display the fields:

  (i) *PatientName, AdmissionID, AdmissionDate, Description* and *Cost* for all the patients admitted between the months of August 2020 and December 2020. Save the query as *Adminqry*. (3 marks)

  (ii) PatientName, *AdmissionDate, Description, Cost* and *DischargeDate*. Save the query as *Disqry*. (2 marks)

(d) Create a report for the *Disqry* created in (ii). Save the report as *Disrpt*. (2 marks)

(e) Print out later each of the following:

  (i) the three tables;

  (ii) Adminqry;

  (iii) Disrpt; (2½ marks)

TASK 4

A cleaning consultant intends to use slides to teach on cleaning and sanitization. You have been tasked to prepare the presentation to appear as shown in Figure 3.

Slide No	Details
1	# CLEANING AND SANITIZING ## By ## JJK
2	**Meaning** - Sanitization is a process that aims at killing and eradicating bacteria, germs, pathogenic and non-pathogenic microorganisms that grow on various surfaces. - It is a process that can be done with the use of a large number of products and chemicals. Examples of chemical used includes: 1) Chlorine-based cleaners 2) Iodine sanitizers 3) Quaternary ammonium 4) Iodophors 5) Peroxyacetic acid
3	Comparison of the Chemical and Physical Properties in Commonly Used Sanitizers <table><tr><td>Property</td><td>Chlorine</td><td>Acid anionic</td><td>Fatty Acid</td></tr><tr><td>Corrosive</td><td>Corrosive</td><td>Slightly corrosive</td><td>Slightly corrosive</td></tr><tr><td>Irritating to skin</td><td>Irritating</td><td>Slightly irritating</td><td>Slightly irritating</td></tr><tr><td>Effective at neutral pH</td><td>Yes</td><td>No</td><td>No</td></tr></table>
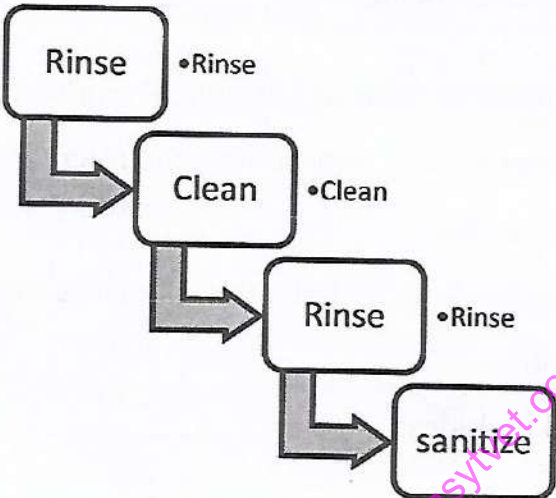
4	**Categories of Sanitization**		
	Individual Sanitization	Space Sanitization	Object Sanitization
	Personal sanitization ☐ Hand Washing ☐ Oral Precautions	**Surface Treatment** ☐ Wet mops ☐ Jets and sprays ☐ UV Led based treatment	(i) Food (ii) Clothing (iii) Shopped Items
5	**Order of Events for Cleaning/Sanitizing**		

Figure 3

(a) Open a presentation program and create the slides as they appear in Figure 3 using appropriate slide layouts. Save the presentation as *Sanitization* in the **KNECEXAM** folder.　　(15 marks)

(b) Apply the following to all slides:

　　(i)　Slide design of your choice;

　　(ii)　transition effect of your choice;　　　　　　　　　　(2 marks)

(c) Apply an animation effect of your choice to the text in slide 1.　　(1 mark)

(d) Insert the following to all the slides:

　　(i)　slide number;

　　(ii)　Date and time.　　　　　　　　　　　　　　　　(1 mark)

(e) Save the changes to print out later *sanitization* as handout of three slides per page.　　(1 mark)

THIS IS THE LAST PRINTED PAGE.