

kasneb

DICT LEVEL III

COMPUTER APPLICATIONS PRACTICAL II

MONDAY: 21 May 2018.

Time Allowed: 3 hours.

Answer ALL questions. Marks allocated to each question are shown at the end of the question.

Additional instructions:

- 1. Save all your work in the flash disk provided and in a folder bearing your registration number.**
- 2. Work on each question should be saved in the subfolder contained in the folder created in number 1 above. The name of the subfolder should correspond to the question number.**
- 3. Your registration number MUST appear as a header on every printout containing your answers.**
- 4. You must indicate the number of the question answered on the header created in number 3 above.**

Note: The information in numbers 1-4 above must be computer generated.

At the end of the examination duration, you should hand in to the invigilator(s):

- (a) The flash disk containing your work.**
- (b) All printed work.**
- (c) All unused printing paper(s).**

QUESTION ONE

Use a word processor document called "Question One" to save solutions to questions (a) to (f) below:

- (a) Distinguish between a "pivot table" and a "consolidation table" in reference to spreadsheet applications. (4 marks)**
- (b) Highlight two decimeters used in a spreadsheet software. (2 marks)**
- (c) Explain two functions of a spreadsheet as a data management tool. (4 marks)**
- (d) Describe the meaning of "parametric query" in the context of database application. (1 mark)**
- (e) Highlight two benefits of a split database. (2 marks)**
- (f) Explain how "parent" and "child" tables are related in relational database. (2 marks)**

Save and print Question One document.

(Total: 15 marks)

QUESTION TWO

Use a word processor document called "Question Two" and save the solutions to questions (a) to (e) below:

- (a) Explain how you could add a calculated control into a database form. (1 mark)**
- (b) Distinguish between the following database terminologies:**
 - (i) "A primary key constraint" and "a unique constraint". (2 marks)**
 - (ii) "Simple Query" and "Query By Example" (QBE). (2 marks)**
- (c) (i) Explain the term "layering" as used in desktop publishing. (2 marks)**
(ii) Distinguish between "fill" and "stroke" in the context of desktop publishing. (4 marks)
- (d) Explain two properties of a frame as used in desktop publishing. (2 marks)**
- (e) State two examples of non-printable guides available in desktop publishing. (2 marks)**

Save and print Question Two document.

(Total: 15 marks)

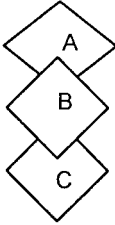
QUESTION THREE

Use a desktop publication software to prepare a publication as shown below.

LAB-REQUEST FORM:

REQUEST NO: _____

STAMP:-



**ABC
MEDICAL SERVICES
TOWARDS A HEALTHIER
KENYA**

		S	E	X	M	F	

Requesting Dr.....

Date.....

Signature.....

1. SURNAME
2. FIRST NAME
3. DATE OF BIRTH
4. AGE
5. VID
6. RID

PLEASE TICK/INDICATE the Diagnostic service requested for:-

BIOCHEMISTRY	HAEMATOLOGY	MICROBIOLOGY																				
<input type="checkbox"/> Urea <input type="checkbox"/> Electrolytes <input type="checkbox"/> Liver function <input type="checkbox"/> Glucose (RBS) <input type="checkbox"/> Urinalysis <input type="checkbox"/> Sodium	<input type="checkbox"/> Haemogram <input type="checkbox"/> Haemoglobin <input type="checkbox"/> WBC <input type="checkbox"/> Differential count <input type="checkbox"/> Platelets <input type="checkbox"/> PCV <input type="checkbox"/> MCV <input type="checkbox"/> Bleeding & clotting times	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; padding: 5px;">SPECIMEN TYPE (TICK)</th> <th style="text-align: left; padding: 5px;">REQUEST (CIRCLE)</th> </tr> </thead> <tbody> <tr> <td><input type="checkbox"/> MSU</td> <td><input type="checkbox"/> CSU</td> </tr> <tr> <td><input type="checkbox"/> Stool</td> <td><input type="checkbox"/> EMU</td> </tr> <tr> <td><input type="checkbox"/> Sputum</td> <td><input type="checkbox"/> SWAB</td> </tr> <tr> <td><input type="checkbox"/> HVS</td> <td> </td> </tr> <tr> <td><input type="checkbox"/> HIV</td> <td> </td> </tr> <tr> <td><input type="checkbox"/> Hepatitis C</td> <td> </td> </tr> <tr> <td><input type="checkbox"/> Widal</td> <td> </td> </tr> <tr> <td><input type="checkbox"/> Brucella</td> <td> </td> </tr> <tr> <td><input type="checkbox"/> ASOT</td> <td> </td> </tr> </tbody> </table>	SPECIMEN TYPE (TICK)	REQUEST (CIRCLE)	<input type="checkbox"/> MSU	<input type="checkbox"/> CSU	<input type="checkbox"/> Stool	<input type="checkbox"/> EMU	<input type="checkbox"/> Sputum	<input type="checkbox"/> SWAB	<input type="checkbox"/> HVS		<input type="checkbox"/> HIV		<input type="checkbox"/> Hepatitis C		<input type="checkbox"/> Widal		<input type="checkbox"/> Brucella		<input type="checkbox"/> ASOT	
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Clinical Summary:

ABC Medical Services
 P.O. Box 01-001000 Nairobi
 Tel: 0788-000001 ABC Towers

Save your publication as "ABC Medical" and print.

QUESTION FOUR

Use a spreadsheet program to perform the tasks below.

- (a) Create a workbook named “projection” containing a worksheet with vehicle sales data as given below:

	A	B	C	D	E	F	G	H
1	MODEL	Growth per annum (%)	2017	2018	2019	2020	Average	RANK
2	TOYOTA	20	25000					
3	NISSAN	15	20000					
4	MAZDA	12	8000					
5	BMW	10	5000					
6	MERCEDES	8	4500					
7	SUZUKI	5	4000					

(6 marks)

- (b) Name the worksheet “vehicles”. (2 marks)
- (c) Project the number of vehicles sold up to 2020 using the growth rate indicated. (5 marks)
- (d) On column G, calculate the average value of given models. (2 marks)
- (e) Rank the average sales using an appropriate function. (3 marks)
- (f) Sort the data based on the model in ascending order. (3 marks)
- (g) Using a column chart, compare the sales of each vehicle model through the years. (4 marks)

Save and print the “vehicles” worksheet.

(Total: 25 marks)

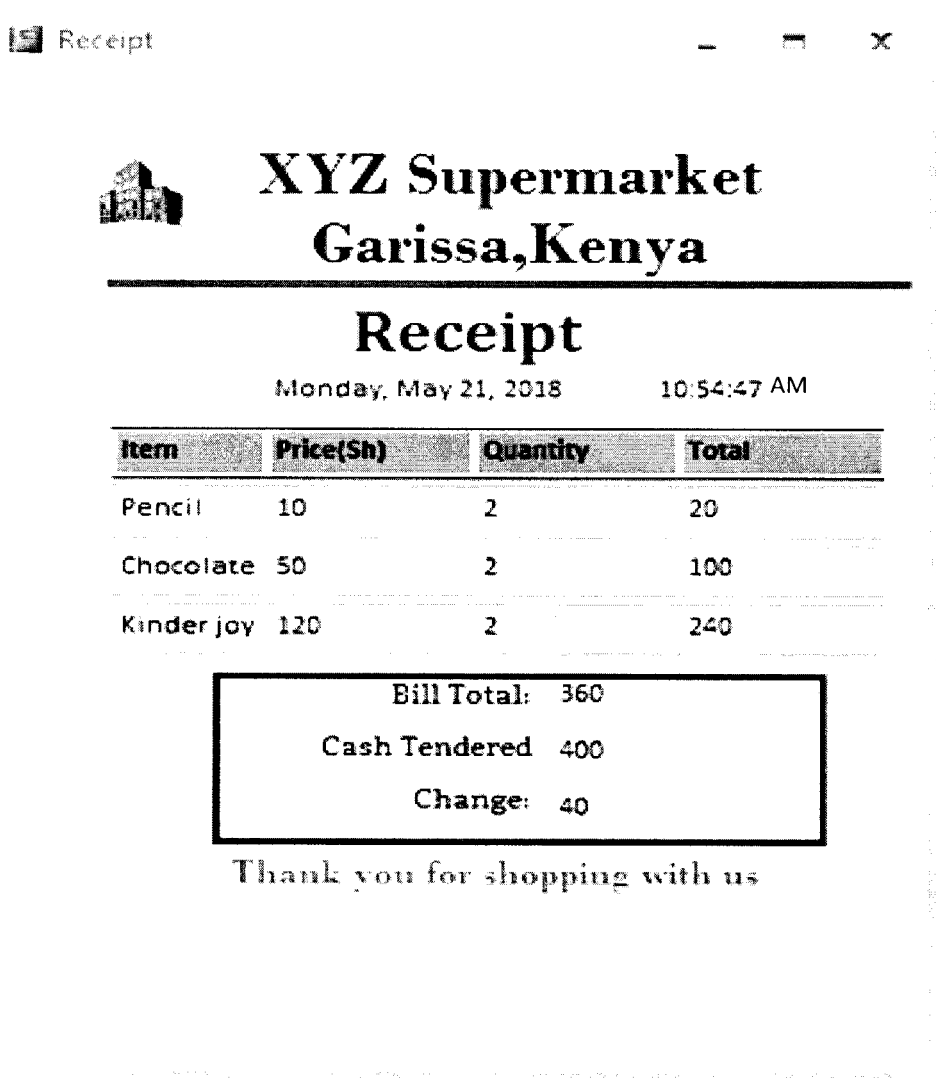
QUESTION FIVE

XYZ Supermarket has consulted you to develop a simple database application for use at the point of sale.

The database should display the sales form as shown below.

The cashier should select the appropriate item and key in quantity details. The application should automatically display the price and calculate the total for each item. After all items are input, the application should automatically calculate the bill total, accept cash tendered by the customer then calculate change.

The application should generate a sample receipt as shown below.



Required:

- (a) Create a database called "XYZ Supermarket" with appropriate tables and relationships. (4 marks)
- (b) Create a form called "sales". Input item details as shown on the "sales" form screenshot. (9 marks)
- (c) Generate an object called receipt with details as shown on the "receipt" screenshot. (12 marks)

Save "XYZ Supermarket" database and print the "receipt".

(Total: 25 marks)