



kasneb

DICT LEVEL III

COMPUTER APPLICATIONS PRACTICAL II

MONDAY: 30 August 2021.

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

Create a word processor document named "Question One".

Use "Question One" document to key in solutions to questions one (a) to (c) below:

- (a) Describe the following terms as they relate to Desktop Publishing (DTP) software:
 - (i) Text frame. (2 marks)
 - (ii) Text overflow. (2 marks)
 - (iii) Overlapping objects. (2 marks)
 - (iv) Grouping objects. (2 marks)
 - (v) Cast off. (2 marks)
- (b) Interpret the macro expression given below:

```
If [Lab].[Capacity] < 13 Then
  SetField
    Name Lab.Lab_Name
    Value = "Electronic Lab"

Else if [Lab]. [Capacity] < 24 Then
  SetField
    Name Lab.Lab_Name
    Value = "Internet Lab"

Else
  SetField
    Name Lab.Lab_Name
    Value = "Computer Lab"

End if
```

(3 marks)
- (c) Illustrate two types of relationships in the context of database application. (2 marks)
Save Question one document and print.

(Total: 15 marks)
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QUESTION TWO

Create a word processor document named "Question Two". Use "Question Two" document to key in solutions to questions (a) to (d) below:

- (a) Explain how you would provide a dynamic range in "data source" of pivot tables. (3 marks)
- (b) Describe the process of merging multiple cells text strings in a cell within a database program. (2 marks)
- (c) Highlight four differences between a formula and a function in a spreadsheet program. (4 marks)
- (d) Explain the following spreadsheet concepts:
 - (i) Change history. (2 marks)
 - (ii) Custom calculation. (2 marks)
 - (iii) Fill handle. (2 marks)

Save Question Two document and print.

(Total: 15 marks)

QUESTION THREE

XYZ Matatu Sacco maintains the following details about the vehicles available:

Vehicle

VehicleNo	Make	Space	OID	TID
KDD 1234	NISSAN	11	V2	T2
KCM 1141	TOYOTA	14	V3	T1
KCC 4125	TOYOTA	14	V5	T1
KBB 1411	MAZDA	11	V4	T2
KCF 2211	NISSAN	14	V1	T1
KDN 7421	TOYOTA	11	V6	T2

Owners

OID	Names
V1	AMOS
V2	SIMON
V3	PETER
V4	ELIZABETH
V5	VICTOR
V6	SUSAN

Transmission

TID	Transmission
T1	Two Wheel
T2	Four Wheel

Routes

RID	RNames	Status	TID
1	Kericho	Rough	T2
2	Kiambu	Rough	T2
3	Mombasa	Smooth	T1
4	Nairobi	Smooth	T1

Required:

- (a) Normalise the table Vehicle to remove redundancy on the field "Make". (4 marks)
- (b) Create a database and name it "XYZ Sacco" with appropriate tables and relationships. (6 marks)
- (c) For each table, create a form and use it to enter the data given. (5 marks)
- (d) Joyce wanted to travel in a vehicle carrying eleven passengers to Kericho. Create a report showing the available vehicles for that purpose. Save the report as "Passengers". (10 marks)

Save XYZ Sacco database and print Passengers report.

(Total: 25 marks)

QUESTION FOUR

(a) Below is an extract from “ABC developers” workbook:

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Expenses	120,000	50,000	30,000	20,000	20,000	20,000
Income	-	180,000	50,000	50,000	50,000	50,000
Discount factor						
Expenses Present value						
Income present value						

Required:

- (i) Create a workbook named “ABC Project” and key in the data above in a worksheet named “Project one”. (7 marks)
- (ii) Insert a header at the centre with the following text “ABC ICT PROJECT FOR SCHOOL ONE”. (2 marks)
- (iii) Calculate the discount factor (DF) given the formula; $DF = \frac{1}{\left[1 + \frac{1}{100}\right]^n}$
Where n = year number; for instance year 0 = 0 for all the years from 0 to 5. (4 marks)
- (iv) Using suitable formulas, calculate the Expenses present value given that:
Expenses present value = expenses * discount factor for respective year. (2 marks)
- (v) Using suitable formulas calculate the Income present value given that:
Income present value = income * discount factor for respective year. (2 marks)

(b) Consider the table below for quotas offered to musicians:

Music supply	
Type	Quota
Itunes	20%
Online downloader	50%
Shop	15%
Others	15%

Required:

- (i) Create a pie chart to represent the data above and save it as a worksheet in “ABC Project” workbook. (2 marks)
- (ii) Add a legend at the bottom of the pie chart. (2 marks)
- (iii) Add a title on the pie chart to read “Pie Chart for Music Supply”. (2 marks)
- (iv) Enter the data labels inside the pie chart. (2 marks)

Save “ABC Project” and print “Project One” worksheet.

(Total: 25 marks)

