

REGISTRATION CENTRE NUMBER		CENTRE NAME	
CANDIDATE'S FULL NAMES			
CANDIDATE IDENTIFICATION NUMBER		SUBJECT CODE 0796	PAPER NUMBER 3
FOR OFFICIAL USE ONLY (Candidate Random CODE): ▶			
GENERAL CERTIFICATE OF EDUCATION BOARD ADVANCED LEVEL EXAMINATION			
SUBJECT TITLE INFORMATION & COMMUNICATION TECHNOLOGIES		SUBJECT CODE 0796	PAPER NUMBER 3
		EXAMINATION DATE: JUNE 2025	

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**Duration: Two Hours
GROUP 1**

Enter the information required in the shaded boxes.

Do not write in pencil.

You are reminded of the necessity for good English and orderly presentation in your answer.

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*The supervisor will guide you on how to save your files but usually you will be expected to save all your work in one folder named **Candidate folder** that will be created in your desktop.*

*When an imperative programming language is require to write program code, either **Standard [ISO]Pascal** or **[ANSI]C** programming language may be used.*

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Answer ALL TASKS.

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Turn Over

TASK A: DATABASE (20 MARKS)

A student is presented with the flat-file containing meeting details as displayed below. It contains a summary of the financial situation of mates from a quarter meeting in Bamenda who have moved to different towns in Cameroon.

The activities of this meeting are shown in *Table 1* below.

Table 1: Financial Transactions

MID	MName	Amount	TType	MAdd	TID	ODate
M10	Mbong	5000	Saving	Buea	001	11/10/2022
L05	Lyonga	10000	Loan	Bamenda	003	08/09/2022
M10	Mbong	12000	Loan	Buea	010	15/07/2022
O20	Otia	2500	Loan	Wum	013	23/10/2022
O15	Omar	6000	Saving	Garoua	005	30/07/2022
L05	Lyonga	5000	Loan refund	Bamenda	004	15/07/2022
S04	Susan	7500	Saving	Douala	008	23/10/2022
O20	Otia	3000	Saving	Wum	006	31/05/2022
L12	Linus	15000	Loan refund	Bertoua	002	12/09/2022
G11	Getrude	4500	Saving	Yaounde	007	08/09/2022
M10	Mbong	2500	Loan	Buea	011	30/07/2022
T07	Tita	6500	Saving	Maroua	012	12/09/2022

MID = Member ID, MAdd = Member Address, TType= Transaction Type, TID = Transaction ID, ODate = Operation Date.

The student decided to normalise the flat file into three (3) relations namely:

Member(MID, MName, MAdd)

Transaction(TID, TType, Amount)

Operation(MID, TID, ODate)

1. From the table structures above, develop the Member table in the space below.

(3 marks)

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2. Give the reason why the table above is not normalised.

(2 marks)

3. State the key for each of the tables

3

(2 marks)

Table	Primary key/Composite key
Member	
Transaction	
Operation	

4. State the appropriate data type of MID and ODate.

MID: ODate:

(2 marks)

5. Using an appropriate database management system, create a database called **FinanceDB** containing the three tables defined above. Populate all the tables taking data from Table 1 above.

(2 marks)

6. Draw the E-R Diagram for the database in the space below. Indicate the cardinalities in the diagram.

(3 marks)

Implement the relationship in the database created.

7. Create a query to display members who have taken loans. Your query should include the amount loaned and the date loaned. Save the query as **LoanF**.

(4 marks)

Print the **Operation** table and the **LoanF** query only.

TASK B: SPREADSHEET (17 MARKS)

This task is based on raw data found in a workbook named **Trift_Loan** in your candidate folder. The workbook contains two sheets namely **ACTIVITIES** and **STATS**. The workbook is designed to manage the finances of a savings and loans meeting that runs for a period of **12 months**. At the end of the 12 months period the interest on loans is calculated using the formula $\text{Simple Interest} = \text{Principal amount} \times \text{Rate} \times \text{Time}$ and the savings is paid back to the members together with some interest.

Open the workbook and answer the questions below:

Do the following activities in the **ACTIVITIES** sheet,

1. Enter a formula in cell F2 to calculate the total savings for Mbong. Copy the formula to get the total savings of other members. Write down the formula used in cell F5.

F5: (2 marks)

When members take loans, their interest per month is calculated depending on the status of the member. Category 1 (Cat1) members pay an interest rate of 1.5% on the loan taken, while Category 2 (Cat2) members pay 2.5%.

2. Enter a formula in cell G12, to determine the interest on the loan taken by Mbong at the end of the 12 month period. Also compute the interest on loan for all the other members. Write down the formula used in cell G12.

G12: (3 marks)

3. At the end of the session, a compensation of 1% of your total savings is given to you as interest. Enter a formula to calculate the compensation for Mbong in cell H2 and also do similarly for other members.

Write down your formula for cell H10.

H10: (2 marks)

4. Enter a formula in cell I2, to determine the amount owed by Mbong. Copy the formula to calculate the debt of all the other members. Write down the formula used in cell I6.

I6: (2 marks)

Turn Over

5. The line total is the net balance of each member. Enter a formula in cell J2 to determine the line total for Mbong. Also calculate the line total of the other members. Write down the formula used in cell J4.

J4: (2 marks)

6. Calculate the totals below each column and bold the row of the totals.

(1 mark)

7. Insert cell borders in the range A1:J24

(1 mark)

Carry out the next set of activities in sheet **STATS**,

8. Enter a formula to get the number of Cat2 members in the meeting in cell B2. Write down the formula used.

B2: (2 marks)

9. Enter a formula in cell B3 to determine the highest amount saved by a member at the end of the meeting session. Write down your formula below.

B3: (1 mark)

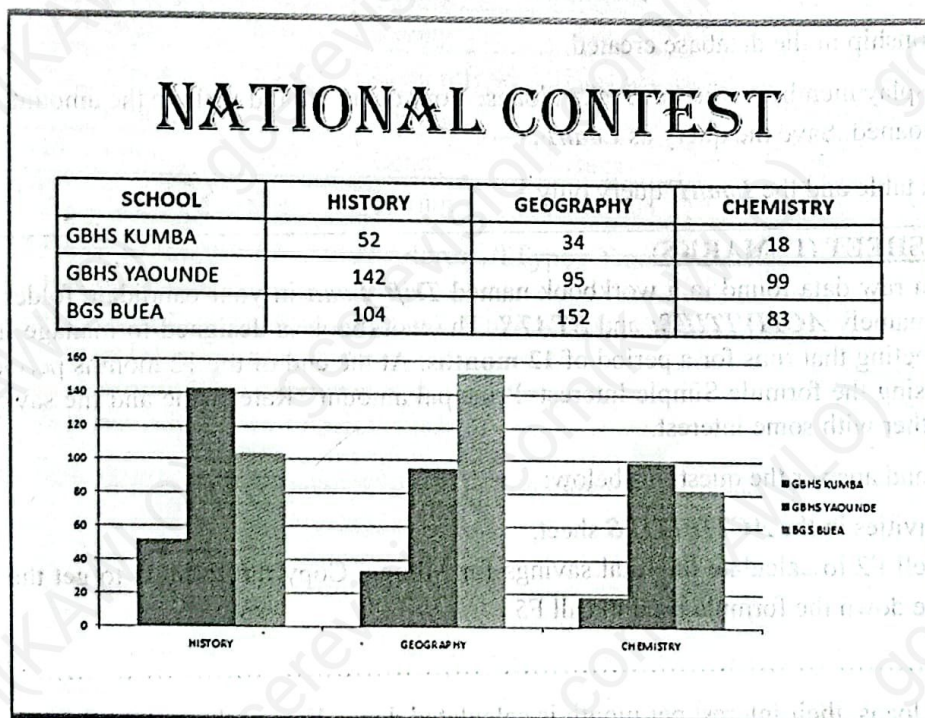
10. Enter a formula in cell B4 to get the least amount loaned to a member. Write down your formula below.

B4: (1 mark)

Save your work and print a copy of your **ACTIVITIES** sheet.

TASK C: PRESENTATION (13 MARKS)

You are required to use the appropriate software tools to create the content of the presentation slide as shown below.



The title of the slide is of font type **ALGERIAN** and size 54. The content of the table is of font type **Calibri** (Body) and size 18.

You will be evaluated as follows:

- (a) Choice of slide layout (2 marks)
- (b) Title formatting (2 marks)
- (c) Table creation and formatting (3 marks)
- (d) Chart type creation and organisation of chart elements (6 marks)

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Duration: Two Hours
GROUP 2

Enter the information required in the shaded boxes.
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Turn Over

TASK A: DATABASE (20 MARKS)

A candidate is presented with the flat-file containing meeting details as displayed below. It contains a summary of the financial situation of mates from a quarter meeting in Buea who have moved to different towns in Cameroon.

The activities of this meeting are shown in *Table 1* below.

Table 1: Financial Transactions

CID	CName	Amount	FType	CAdd	FID	TDate
M10	MAFANY	5000	Saving	Edea	001	11/10/2022
L05	ENOH	10000	Loan	Bamenda	003	08/09/2022
M10	MAFANY	12000	Loan	Edea	010	15/07/2022
O20	EPOSI	2500	Loan	Nkambe	013	23/10/2022
O15	ISMAIL	6000	Saving	Garoua	005	30/07/2022
L05	ENOK	5000	Loan refund	Bamenda	004	15/07/2022
S04	LILIAN	7500	Saving	Ebolowa	008	23/10/2022
O20	EPOSI	3000	Saving	Nkambe	006	31/05/2022
L12	FUSI	15000	Loan refund	Bertoua	002	12/09/2022
G11	NGANG	4500	Saving	Yaounde	007	08/09/2022
M10	MAFANY	2500	Loan	Edea	011	30/07/2022
T07	NGUM	6500	Saving	Maroua	012	12/09/2022

CID = Customer ID, CAdd = Customer Address , FType= Financial Type, FID = Financial ID, TDate = Transaction Date.

The student decided to normalise the flat file into three (3) relations namely:

Customer(CID, CName, CAdd)

Financial(FID, FType, Amount)

Transaction(CID, FID, TDate)

1. From the table structures above, develop the Customer table in the space below.

(3 marks)

[illegible]

2. Give the reason why the table above is not normalised. (2 marks)

3. State the key for each of the tables (2 marks)

Table	Primary key/Composite key
Customer	
Financial	
Transaction	

4. State the appropriate data type of the attributes **Amount** and **FID**.
 Amount..... FID: (2 marks)

5. Using an appropriate database management system, create a database called **FinanceDB** containing the three tables defined above. Populate all the tables taking data from Table 1 above. (2 marks)

6. Draw the E-R Diagram for the database in the space below. Indicate the cardinalities in the diagram. (3 marks)

Implement the relationship in the database created.

7. Create a query to display the names of Customers who have saved an amount which is less than 6000. Your query should also include the amount and their addresses. Save the query as **InvestF**. (4 marks)

Print the Transaction table and the InvestF query only.

TASK B: SPREADSHEET (17 MARKS)

This task is based on raw data found in a workbook named **Customer_Loan** in your candidate folder. The workbook contains two sheets namely: **OPERATIONS** and **SUMMARY**. The workbook is designed to manage the finances of a savings and loans meeting that runs for a period of **12 months**. At the end of the 12 months period the interest on loans is calculated using the formula Simple Interest=Principal amount *Rate*Time and the savings is paid back to the Customers together with some interest.

Open the workbook and answer the questions below:

Do the following activities in the **OPERATIONS** sheet,

1. Enter a formula in cell F16 to calculate the total savings for **NCHANG**. Copy the formula to get the total savings of other Customers. Write down the formula used in cell F4.

F4:..... (2 marks)

When Customers take loans, their interest per month is calculated depending on the status of the Customer. Index 1 (IND1) Customers pay an interest rate of 1.5% on the loan taken, while Index 2 (IND2) Customers pay 2.5%.

2. Enter a formula in cell G2, to determine the interest on the loan taken by **MAFANY** at the end of the 12 months period. Also compute the interest on loan for all the other Customers. Write down the formula used in cell G5.

G5: (3 marks)

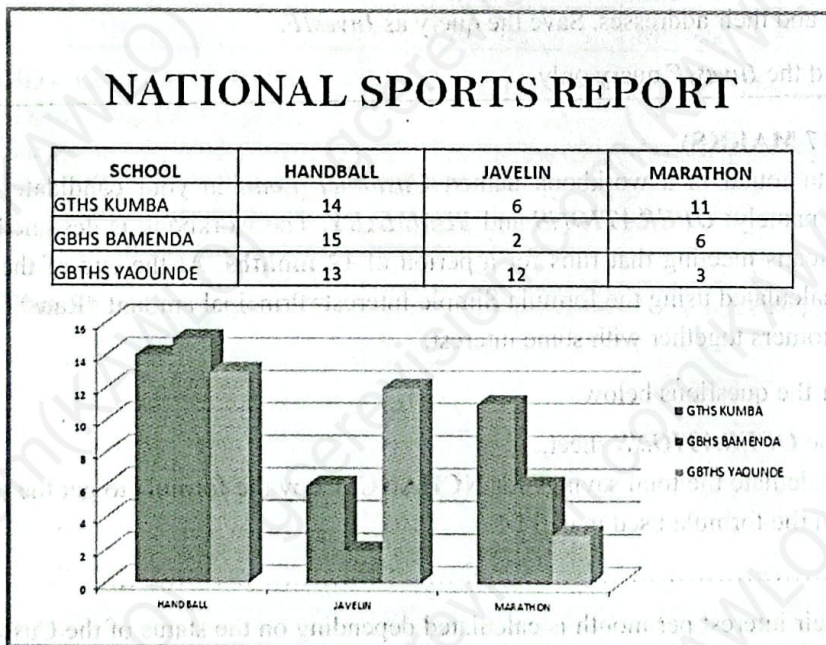
3. At the end of the session, a compensation of 1% of your total savings is given to you as interest. Enter a formula to calculate the compensation for **MAFANY** in cell H2 and also do similarly for other Customers. Write down your formula for cell H12.

Turn Over

- H12: (2 marks)
4. Enter a formula in cell I2, to determine the amount of debt owed by **MAFANY**. Copy the formula to calculate the debt of all the other Customers. Write down the formula used in cell I4. (2 marks)
- I4: (2 marks)
5. The line total is the net balance of each Customer. Enter a formula in cell J2 to determine the line total of **MAFANY**. Also calculate the line total of the other Customers. Write down the formula used in cell J6. (2 marks)
- J6: (2 marks)
6. Calculate the totals below each column and bold the row of the totals. (1 mark)
7. Insert cell borders in the range A1:J24 (1 mark)
- Carry out the next set of activities in sheet **SUMMARY**.
8. Enter a formula to get the number of IND2 Customers in the meeting in cell B2. Write down the formula used. (2 marks)
- B2: (2 marks)
9. Enter a formula in cell B3 to determine the highest amount saved by a Customer at the end of the meeting session. Write down your formula below. (1 mark)
- B3: (1 mark)
10. Enter a formula in cell B4 to get the least amount loaned to a Customer. Write down your formula below. (1 mark)
- B4: (1 mark)
- Save your work and print a copy of your **OPERATIONS** sheet.

TASK C: PRESENTATION (13 MARKS)

You are required to use the appropriate software tools to create the content of the presentation slide as shown below.



The title of the slide is of font type Bell MT and size 40. The content of the table is of font type Calibri (Body) and size 18.

You will be evaluated as follows:

- (a) Choice of slide layout (2 marks)
- (b) Title formatting (2 marks)
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GROUP 3

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Turn Over

TASK A: DATABASE (20 MARKS)

A candidate is presented with the flat-file containing meeting details as displayed below. It contains a summary of the financial situation of workers from a small business in Kumba who have moved to different towns in Cameroon.

The activities of this business are shown in *Table 1* below.

Table 1: Financial Transactions

WID	WName	Amount	AType	WAdd	AID	TDate
M10	Nkeng	15000	Saving	Edea	001	11/10/2023
L05	Agbor	20000	Loan	Bamenda	003	08/09/2023
M10	Nkeng	13000	Loan	Edea	010	15/07/2023
O20	Fusi	5500	Loan	Nkambe	013	23/10/2023
O15	Amina	8000	Saving	Garoua	005	30/07/2023
L05	Agbor	7500	Loan refund	Bamenda	004	15/07/2023
S04	Kasi	79500	Saving	Ebolowa	008	23/10/2023
O20	Fusi	6000	Saving	Nkambe	006	31/05/2023
L12	Fusi	25000	Loan refund	Bertoua	002	12/09/2023
G11	Ngong	8500	Saving	Yaounde	007	08/09/2023
M10	Nkeng	4500	Loan	Edea	011	30/07/2023
T07	Efang	9500	Saving	Maroua	012	12/09/2023

WID = Worker ID, WAdd = Worker Address,

AType= Accounts Type, AID = Accounts ID, TDate = Transaction Date.

The student decided to normalise the flat file into three (3) relations namely:

Worker(WID, WName, WAdd)

Accounts(AID, AType, Amount)

Transaction(WID, AID, TDate)

1. From the table structures above, develop the Worker table in the space below.

(3 marks)

[illegible]

2. Give the reason why the table above is not normalised. (2 marks)

3. State the key for each of the tables (2 marks)

Table	Primary key/Composite key
Worker	
Accounts	
Transaction	

4. State the appropriate data type of the attributes **Amount** and **AID**.

Amount..... AID: (2 marks)

5. Using an appropriate database management system, create a database called **AccountsDB** containing the three tables defined above. Populate all the tables taking data from Table 1 above. (2 marks)

6. Draw the E-R Diagram for the database in the space below. Indicate the cardinalities in the diagram. (3 marks)

Implement the relationship in the database created.

7. Create a query to display names of the Workers who have saved an amount that is greater than 8000. Your query should also include the amounts and their addresses. Save the query as **SavedF**. (4 marks)

Print the Transaction table and the SavedF query only.

TASK B: SPREADSHEET (17 MARKS)

This task is based on raw data found in a workbook named **Worker_Loan** in your candidate folder. The workbook contains two sheets namely: **MASTER** and **SUMMARY**. The workbook is designed to manage the finances of a savings and loans meeting that runs for a period of 12 months. At the end of the 12 months period the interest on loans is calculated using the formula $\text{Simple Interest} = \text{Principal amount} \times \text{Rate} \times \text{Time}$ and the savings is paid back to the Workers together with some interest.

Open the workbook and answer the questions below:

Do the following activities in the **MASTER** sheet,

1. Enter a formula in cell F6 to calculate the total savings for **Amina**. Copy the formula to get the total savings of other Workers. Write down the formula used in cell F20.

F20: (2 marks)

When Workers take loans, their interest per month is calculated depending on the status of the Worker. Index 1 (IND1) Workers pay an interest rate of 1.5% on the loan taken, while Index 2 (IND2) Workers pay 2.5%.

2. Enter a formula in cell G2, to determine the interest on the loan taken by **NKENG** at the end of the 12 months period. Also compute the interest on loan for all the other Workers. Write down the formula used in cell G15.

G15: (3 marks)

Turn Over

3. At the end of the session, a compensation of 1% of your total savings is given you as interest. Enter a formula to calculate the compensation for **NKENG** in cell H2 and also do similarly for other Workers. Write down your formula for cell H9.

H9: (2 marks)

4. Enter a formula in cell I2, to determine the amount of debt owed by **NKENG**. Copy the formula to calculate the debt of all the other Workers. Write down the formula used in cell I4.

I4: (2 marks)

5. The line total is the net balance of each Worker. Enter a formula in cell J2 to determine the line total of **NKENG**. Also calculate the line total of the other Workers. Write down the formula used in cell J11.

J11: (2 marks)

6. Calculate the totals below each column and bold the row of the totals.

(1 mark)

7. Insert cell borders in the range A1:J24

(1 mark)

Carry out the next set of activities in sheet **SUMMARY**.

8. Enter a formula to get the number of **IND2** Workers in the meeting in cell B2. Write down the formula used.

B2: (2 marks)

9. Enter a formula in cell B3 to determine the highest amount saved by a Worker at the end of the meeting session. Write down your formula below.

B3: (1 mark)

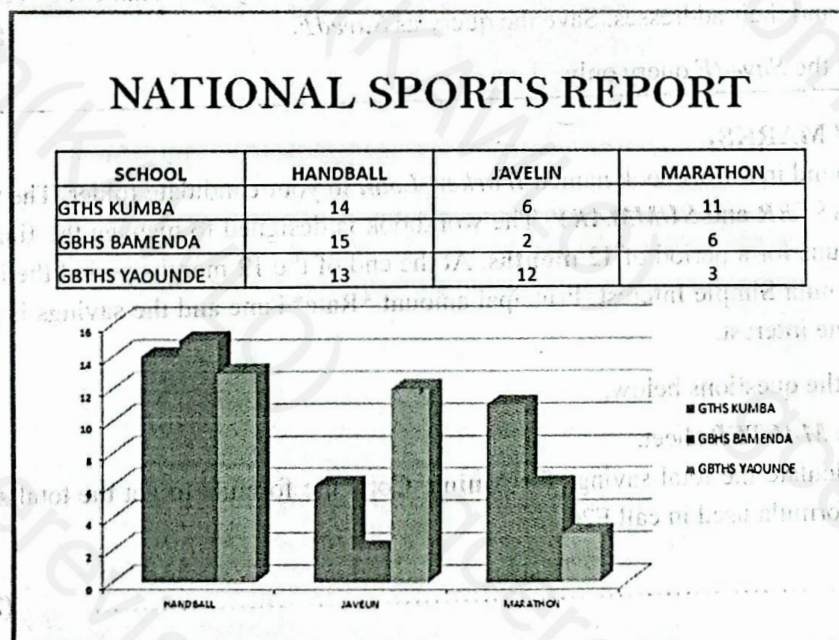
10. Enter a formula in cell B4 to get the least amount loaned to a Worker. Write down your formula below.

B4: (1 mark)

Save your work and print a copy of your **MASTER** sheet.

TASK C: PRESENTATION (13 MARKS)

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- (c) Table creation and formatting (3 marks)
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