ACADEMIC YEAR 2023 - 2024

Program	Year	Semester	Paper
LTM	**1**	**1**	**MAIN**

MODULE NAME:	**IT FOUNDATION**		
MODULE CODE:	**PIT I.I**	**EXAM DATE:**	**19/12/2023**
INSTRUCTOR's NAME:	**Ahlam Mohammad**	**DURATION:**	**2 hrs**

Questions to be answered on:	**Allowed tools:**	**Number of pages**
✓ Computer	Pen, Pencil & Calculator	(Incl. cover page): **6**

Points of attention:

- For each question, the maximum earned points are mentioned between brackets at the end of each question.
- Write very clearly! Answers that are not readable are not marked and don't get points!
- Make sure your answers are written to the point.
- All answers should be written **in English.**
- Write all the answers in **blue or black pen only.**
- Use the **pencil** only for **diagrams & graphs.**
- Show all the calculation steps in the given space.
- When finished submit the question paper, together with the answer scripts and the signed cover page to the invigilator.
- Any cheating/copying may result in an instant failing of the examination.

FINAL MARKS

	40
	10

STUDENT NAME:

STUDENT ID:

Number of answer scripts:…….…………..   **Invigilator:**………….….…………..…

Student's signature: ……………………….   **Time of receipt:**…………………..…

Question 1   **[10 Marks]**

1. **Download** the **workbook-1** that is provided in Moodle.
2. Open the first sheet "Customer Info" in the workbook-1.

	A	B	C	D	E	F
1	Customer Name	Email	Age	Total Purchases	Status	Membership
2	Ahmed	ahmed@email.com	28	500	Active	Gold
3	Salim	salim@email.com	35	800	Inactive	silver
4	Firas	firas@email.com	40	1200	Active	Gold
5	Dana	dana@email.com	45	300	Active	Bronze
6	Fatma	fatma@email.com	32	1000	Inactive	silver
7	Hamed	hamed@email.com	55	1800	Active	Gold
8						
9			Q a.			
10			Qb.			
11			Qc.			
12			Qd.			
13						

3. Format the currency to **OMR** with **0 decimal** places for the **column D**.   **(1 mark)**
4. The company has collected data on customer purchases, status, and membership levels. Answer the following questions:

   a. In cell **D9**, use an Excel function to decide whether the **purchase** amount of the customer **'Firas'** in cell **A4** is less than 500. If so, display 'Low Spending.' If so, display 'Low Spending.' If the purchase amount is 1000 OMR or less, display 'Medium Spending; otherwise, display 'High Spending.'   **(3 marks)**

   b. In cell **D10**, use an Excel function to check if the customer 'Dana' in cell **A5** is an 'Active' member and has a membership type of 'Gold'; if true, label them as a 'Premium Member,' otherwise, label them as a 'Regular Member.   **(2 marks)**

   c. In cell **D11**, use an Excel function to determine how many **inactive** customers. **(2 marks)**

   d. In cell **D12**, The company decided to give **Hamed** in cell A7 a **20% discount** on his purchase due to his loyalty. How much is the total amount that **Hamed** needs to pay after the discount?   **(2 marks)**

Question 2 [10 Marks]

1. Open the second sheet "Transaction Info" in the workbook-1.

	A	B	C	D	E	F
1	Date	Account	Transaction	Amount	Type	Balance
2	01/01/2023	A12345	Depsit	OMR 500		OMR 1,500
3	05/01/2023	B67890	Withdrawal	OMR 200		OMR 800
4	10/01/2023	A12345	Transfer	OMR 300		OMR 1,200
5	15/01/2023	C98765	Depsit	OMR 1,000		OMR 2,000
6	20/01/2023	B67890	Withdrawal	OMR 250		OMR 850
7	25/01/2023	C98765	Depsit	OMR 600		OMR 650
8					Total	
9						
10						
11						
12						

2. In **column E**, apply an Excel function to categorize the **transaction type** in **column C** into three levels: if it's a 'Deposit,' the transaction type is marked as 'Credit'; if it's a 'Withdrawal,' the type is noted as 'Debit'; otherwise, it is categorized as 'Transfer'. **(3 marks)**

3. In cell **D9**, write a function to check if the amount in **D2** is greater than 500. If true, display 'High Amount'; otherwise, display 'Low Amount.' **(2 marks)**

4. In cell **D10**, write a function to calculate the total amount for all deposit transactions. **(2 marks)**

5. Suppose account number **B67890** in cell **B6** deposits 1500 OMR into his or her account. What is the total balance? Write the answer in **D11** using Excel functions. **(2 marks)**

6. Use an Excel function to calculate the **total balance**.Write the answer in cell **F8**. **(1 mark)**

Question 3 [10 Marks]

1. Open the third sheet "Product Info" in the workbook-1.

	A	B	C	D	E	F
1	Order ID	Product Category	Product	Quantity	Unit Price	Total Price
2	1	Electronics	Laptop	2	800	
3	2	Clothing	T-shirt	5	20	
4	3	Electronics	Smartphone	3	300	
5	4	Books	Python Book	10	15	
6	5	Clothing	Jeans	2	50	
7	6	Electronics	Headphones	1	50	
8	7	Books	Java Book	5	18	
9	8	Clothing	Jacket	1	100	
10	9	Electronics	Camera	1	400	
11	10	Books	SQL Book	7	25	
12						
13						

2. **Format** the **currency** to OMR with three decimal places for the co**lumns E and F.** **(1 mark)**

3. Find the **Total price** for the column **F** by using the correct operator (for example, - or + or * or /). **(2 marks)**

4. Insert a pivot table into a new sheet and name the sheet **'Pivot-1**.'

5. The pivot table should display the **product category**, **product type**, and **unit price** for each phone in rows and values. **(3 marks)**

6. Insert a **chart** for any of the pivot tables that can graphically display the given data with proper axes and data labels. **(4 marks)**

Write Python code using 'Replit.com', https://python-fiddle.com, or any online compiler. Take screenshots of your code and upload them to Moodle.

The code and results should be screenshotted and pasted in a Word document, and then uploaded to Moodle.

1. Write a Python program that takes a numerical grade which is 85 and classifies it into the following categories:

   • If the grade is 90 or above, print "A"
   • If the grade is between 80 and 89, print "B"
   • If the grade is between 70 and 79, print "C"
   • If the grade is below 70, print "Fail"

2. Define a variable age and assign the value 25 to it. Print the following message using the print function: "I am [age] years old."

MLO & Bloom's Level of Complexity

Q #	MLO Addressed	Complexity Level	Mark	Remark
1	4	Application	10	
2	4	Application	10	
3	4	Application	10	
4	5	Application	10	