

Daffodil International University
Department of Computer Science and Engineering
Faculty of Science & Information Technology
Midterm Examination, Spring-2023

Course Code: CSE233, Course Title: Object Oriented Programming II

Level: 3, 2 Term: 1, 3 Batch: 59, 60

Time: 1.5 hrs

Marks: 25

Answer ALL Questions

[The figures in the right margin indicate the full marks and corresponding course outcomes. All portions of each question must be answered sequentially.]

1.	<p>Consider the following random items code of groceries.</p> <p>d = 181,178,187,182,192,189,202,201</p> <p>The concept of dataset is crucial for modern intelligence systems. Initially, we need to process any data using basic programming concepts such as statistical analysis. Here providing data is also part of that concept which is provided in your class lecture.</p> <table border="1" style="width: 100%;"> <tr> <td style="width: 5%;">a)</td><td style="width: 85%;">Create a list constructor for the provided dataset.</td><td style="width: 10%; text-align: center;">2</td></tr> <tr> <td>b)</td><td>Develop a function for the data where the function will regenerate the values in reverse and sorted way following all the necessary requirements.</td><td style="text-align: center;">5</td></tr> <tr> <td>c)</td><td>Compare between list and array.</td><td style="text-align: center;">3</td></tr> </table>	a)	Create a list constructor for the provided dataset.	2	b)	Develop a function for the data where the function will regenerate the values in reverse and sorted way following all the necessary requirements.	5	c)	Compare between list and array.	3	CO2
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b)	Develop a function for the data where the function will regenerate the values in reverse and sorted way following all the necessary requirements.	5									
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2.	<p>Consider the following scenario for the Chatgpt</p> <p>You: Hi! Chatgpt: Hi! What can I do now? You: Do you know me? Chatgpt: You are from Daffodil International University. You are currently studying 5th semester. You: Thanks for your information. Chatgpt: Thanks for your gratitude.</p> <p>You know that chatgpt is a complex artificial system. And it requires a more powerful system such as a supercomputer. You have no development knowledge of a chatgpt but you have the basic knowledge of object oriented programming II. Now you need to implement some concepts to develop the demo chatgpt.</p> <table border="1" style="width: 100%;"> <tr> <td style="width: 5%;">a)</td><td style="width: 85%;">Construct a function to build the demo Chatgpt and all necessary input will take form the user as their wishes.</td><td style="width: 10%; text-align: center;">5</td></tr> <tr> <td>b)</td><td>Justify the line from your demo chatgpt "<i>Chatgpt is better than human</i>".</td><td style="text-align: center;">3</td></tr> <tr> <td>c)</td><td>Explain the process to change the word "5th" to "7th" in the given string.</td><td style="text-align: center;">2</td></tr> </table>	a)	Construct a function to build the demo Chatgpt and all necessary input will take form the user as their wishes.	5	b)	Justify the line from your demo chatgpt " <i>Chatgpt is better than human</i> ".	3	c)	Explain the process to change the word "5th" to "7th" in the given string.	2	CO1
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c)	Explain the process to change the word "5th" to "7th" in the given string.	2									
3.	<p>Let's consider two different list</p> <p>K = [1001,1002,1003,1004,1005] V = ["USA", "Canada", "China", "Japan", "UK"]</p> <p>Propose a function to convert two lists into a dictionary using python script.</p>	5 CO3									



Daffodil International University

Department of Computer Science and Engineering

Faculty of Science & Information Technology

Midterm Examination, Fall 2022

Course Code: CSE233, Course Title: Object Oriented Programming II

Level: L2, L3 Term: T3, T1 Batch: 57, 58

Time: 01:30 Hrs

Marks: 25

Answer ALL Questions [Optional]

[The figures in the right margin indicate the full marks and corresponding course outcomes. All portions of each question must be answered sequentially.]

1.	<p>Distinguish between List and Tuple with proper examples. Illustrate the if..elif..else statement flowchart.</p>	[3+2]	CO3
	<p>The following Python code should be carefully read line by line. Identify the problem statement for this code and write down your pseudo code with proper justification.</p> <pre>def list(L): for i in L: if (i % 2 == 1): even(i) else: odd(i) print("The list of odd numbers are :") print("The list of even numbers are :") L = [12, 15, 33, 7, 1, 92, 53, 4, 0] print("The list is ") print(L) list(i)</pre>	[5]	
2.	<p>Take an integer number as user input then construct a python function to find out, if the input is prime or not prime.</p>	[5]	CO3
3.	<p>Streaming pioneer Netflix significantly expanded its global footprint to 190 countries, making its Internet TV service available in 130 new markets including Bangladesh. The internet TV network expanded to more than 130 countries apart from China, Syria, Crimea or North Korea. The Netflix is a popular streaming platform in Bangladesh. OTT lovers can get Netflix offers three streaming plans: Basic, Standard, and Premium, starting at \$9.99 per month and ending at \$19.99 per month. Standard plan may cost \$15.99.</p>	[10]	CO1

	<p>Now your task is creating a nested dictionary by taking user input. Example,dict = {1: {"name": "Siri", "plan": "Basic"}, 2: {"name": "Alexa", "plan": "Standard"}}}</p> <p>Prepare a function which insert payment in nested dict base on their prefer plan and print out the amount of the payment.</p>		
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Daffodil International University

Department of Computer Science and Engineering

Faculty of Science & Information Technology

Midterm Examination, Spring 2022

Course Code: CSE233 (Day), Course Title: Object-Oriented Programming II

Level: L2 T3; Section: All

Time: 1 Hour 30 Mins, Marks: 25

Questions(Answer All)

Marks

- 1 (a) As you can see the following is a python code. Read the code line by line carefully. [4]

```
value = [1,2,3,4,5,6,7,8,9]
value2 =[1,2,3]
for item in value:
    if item == 5:
        continue
    print("break")
    for item2 in value2:
        print(item,item2)
```

Your first task is to find out the problem statement of this code, and what should be the output?

- (b) Daffodil International University has been decided to give waiver to students during pandemic according to the following criteria: [3]

Result (CGPA)	Waiver (%)
More than 3.50	20
3.00-3.50	10
Less than 3.00	5

Take your semester fee and result as user input and print the net waiver amount.

- (c) Write a python program which takes odd numbers from 1 to 100 using while loop and make those odd number list and display it. [4]

2 (a) Suppose you have a plan for travelling different countries in year 2022 with your friends. The country that you have listed are following: ['India', 'Thailand', 'Bhutan', 'China', 'Nepal', 'Myanmar']. But one of your friends tells you that we cannot travel Myanmar due to the political unrest. Therefore, the country name will be removed from the list. Write a program to display the entire countries name except Myanmar using Loop in python program. [4]

(b) What is the difference between list and tuples? [2+3]
Define two lists and write a python program that print a new list with the common elements of those lists otherwise print no common elements.

Sample Input: First List [1, 2, 3] and Second List [2, 4, 5]

Output: [2]

(c) Write a Python program that takes a list as an input from the user. Then create a new list excluding the first and last elements of the given list and prints the new list. If there are not enough elements in the list to do the task, the print "Not possible". [5]

Sample Input: [2, 3, 4, 5, 6]

Output: [3, 4, 5]



Daffodil International University

Department of Computer Science and Engineering

Faculty of Science & Information Technology

Midterm Examination, Summer 2021 @ DIU Blended Learning Center

Course Code: CSE233 Course Title: Object Oriented Programming II

Level/Term: L2T3 Section: ALL

Instructor: ALL Modality: Online Exam

Date: 6 July, 2021 Time: 09:00am-11:30am (2.5 hours) Marks: 25

Answer all the Questions. Obtain marks in the right side

1. a. As you can see the following is a python code. Read the code line by line carefully. [4]

```
sum = 0
n = int(input("How many test case: "))
for i in range(n):
    x,y = input("Enter 2 integer: ").split()
    x = int(x); y = int(y)
    for j in range(x, (x+(y*2))):
        if j%2 != 0:
            sum += j
    print(sum)
```

Your first task is to find out the **problem statement** of this code, and then **write down pseudocode** of the following code. If we provide following values as **input** to this program, then what should be the **output**?

How many test case: 1
Enter 2 integer: 4 3

- b. You are given a list of 7 days in a week sequentially starting from Saturday, Monday and Wednesday are missing from the list. So, write a python code to add the missing items in the list. In addition, create a function which will take the day from the list and give a message "Today is holiday" if it matches with "Friday" otherwise it will show "Working day". [3]
2. a. Suppose, you have to construct a list of string as following: [4]

Name = Shikha,
Father Name = Muzam,
Mother Name = Haua,
Phone Number = 01971700130

Construct a list using your Own Name, Father name, Mother name, Phone number. Write a program to **count the number of characters** and **count vowels** from the list of strings you construct.

Sample Input	Sample Output
[Shikha, Haua, Muzam, 01971700130]	Number of Character: 26 Number of Vowel: 7

Please justify your answer line by line.

- b. Write a program which can check every number which is divisible by 2 or 5 lies between 20 and 60. [4]
If the number is divisible by 2 then add 5 to the number and the number is divisible by 5 then add 2 to the number. Now print the number in a list.

Please justify your answer line by line.

- c. Suppose you are a Software developer in 'XYZ' IT company. Currently your company working on a Government project. The project is aim to develop an app to count the number of **COVID19** cases in every day around the whole country. You are working with a team on this project, and your responsibility is to develop **user login and authentication portion** with **admin login access**.

As input, you **must have to** use the following predefine information's on your code:

```
user_name = ["healthMin", "reliefMin", "FoodMin"]
password = ['123health', '456relief', '789food']
admin = {'imadmin': '123'}
```

Requirements:

Your first tasks are to convert items of **user_name** and **password** list into pair in sequence. And then have to implement all the following concepts:

- A user only can login if and only if his/her username match its corresponding password, otherwise login should be denied.
- A user is not allowed to insert any new item as username and password.
- Someone only can login **as Admin** if and only if his/her username/password match with predefine admin username/password, otherwise login should be denied.
- An Admin is allowed to insert any new item as username and password for new user.

Now from above situation:

- i. Develop necessary code to fulfil all your assign tasks (by maintaining **predefine information's** and all the **requirements**). [7]
- ii. What are the **Python concepts** used in your code? Express your understanding on your mentioned **Python concepts**. [3]

--☀-- **Best of Luck** --☀--