National Institute of Technology Kurukshetra
Department of Computer Engineering
Programming using Python (CSIC-104)
Branch: AIDS, M&C, IIOT (II Semester)
Mid Term- I,
Date of Exam – 21-February-2025

Time- 05:00 PM-05:50 PM [50 Min] **Max Marks:15**

Instructions: All questions are compulsory. For each question, take suitable input and show the output.

Q1.	A bank customer wants to deposit and withdraw money from their bank account, starting with an initial balance. The customer will choose whether they want to deposit money or withdraw money, and we will ask for their choice (D for deposit, W for withdrawal, and S to show the final balance). Write a program with a menu that does the following: • a function that allows the customer to deposit money into the account based on their choice. • a function that allows the customer to withdraw money from it based on their choice. • a function that calculates the final balance in the account after a series of transactions, which the program will take from the user's input.	4 M
Q2.	There are N number of employees in a small size organization. The organization is maintaining the Covid vaccination status and also arranging the vaccination for unvaccinated. The employees in the organization are sequenced from 1, 2...N. The vaccination status is maintained for the whole organization. Vaccination status 00011 (=3) means, the 4th and 5th employees are vaccinated and rest are not. Given the number of employees of the organization, vaccination status of organization (as decimal integer), and sequence number of an employee, find the vaccination status of the employee, if not vaccinated, then vaccinate him and display the update vaccination status of the organization as a decimal number. Input: 10 (Number of employees) 205 (vaccination status of the organization) 5 (sequence number of employee) Output: Employee with sequence number 5 has to be vaccinated Updated vaccination status of the organization is: 237	4 M

Q3.	A website requires the users to input username and password to register. Write a program to check the validity of password input by users. Following are the criteria for checking the password: • At least 1 letter between [a-z] • At least 1 number between [0-9] • At least 1 letter between [A-Z] • At least 1 character from [$#@] • Minimum length of transaction password: 6 • Maximum length of transaction password: 12 Your program should accept a sequence of comma separated passwords as input from the console and will check them according to the above criteria. Passwords that match the criteria are to be printed, each separated by a comma. **Example** If the following passwords are given as input to the program: ABd1234@1,a F1#,2w3E*,2We3345 Then, the output of the program should be:ABd1234@1	5 M
Q4.	With a given list [12,24,35,24,88,120,155,88,120,155], write a program to print this list after removing all duplicate values with original order reserved.	2 M