TVET CDACC PRACTICAL ASSESSMENT

Trade Area: ICT – Software Development
Project Title: Genz Dispensary Patient Information System
Programming Language: Visual Basic .NET (VB.NET)
Database: MS SQL Server
Duration: 16 Hours

TASK 1: INSTALLATION AND SETUP (1 Hour – 5 Marks)

(a) Install and configure Visual Basic .NET or Visual Studio on your computer.
(b) Create a new Windows Forms Application named GenzDispensarySystem.
(c) Develop a simple program that displays the message "VB.NET setup successful!" when executed.
(d) Take screenshots of the installation process, project creation, and program output.

Item	Marks
Installation of VB.NET / Visual Studio	2
Creation of project	1
Execution of test program	1
Documentation (screenshots/report)	1
Total	5

TASK 2: DATA CAPTURE FORM (3 Hours – 15 Marks)

(a) Design a Windows Form to capture the following patient details: Patient ID Number, Full Name, Gender, Age, Location, Phone Number, Occupation.
(b) Include a Display button that prints the entered patient details on the screen.
(c) Perform basic input validation to ensure all fields are filled.

Item	Marks
Form design and labeling	4
Input validation	3
Output display logic	5
Layout and user-friendliness	3
Total	15

TASK 3: COMPUTATION USING SELECTION STRUCTURE (3 Hours – 15 Marks)

(a) Write a VB.NET program that computes the Social Health Fund (SHIF) for a patient based on occupation.
(b) Use a Select Case or If...Else structure according to the given SHIF rates table.
(c) Display the SHIF result together with the patient's name and occupation.

Item	Marks

Correct control structure used	5
Accurate SHIF computation	5
Proper display of output	3
Code documentation/comments	2
Total	15

TASK 4: USE OF LOOPING STRUCTURES (3 Hours – 15 Marks)

(a) Modify your program to handle multiple patient entries using a looping structure (For, While, or Do While).
(b) For each patient entered, input their name and occupation, compute SHIF, and display the result.
(c) Continue the process for a user-defined number of patients.

Item	Marks
Implementation of loop	5
Correct computation per iteration	4
Proper display of each result	4
Logical flow and code clarity	2
Total	15

TASK 5: USE OF FUNCTIONS AND PROCEDURES (3 Hours – 15 Marks)

(a) Write a VB.NET program that uses functions to input, validate, compute, and display SHIF.
(b) Divide your program into modular functions such as CaptureDetails(), ValidateDetails(), and CalculateSHIF().
(c) Display the patient's full details and SHIF contribution.

Item	Marks
Use of user-defined functions	5
Correct validation logic	4
Accurate SHIF calculation	3
Output and modularity	3
Total	15

TASK 6: DATABASE INTEGRATION (3 Hours – 20 Marks)

(a) Create a database named GenzDispensaryDB in MS SQL Server.
(b) Create a table named Patients with the specified fields.
(c) Write a VB.NET program to insert and manage patient records in the database.
(d) Add buttons for Add, Search, Edit, and Generate Report.

Item	Marks
Database creation and connection	5

Data insertion logic	5
Functional buttons (Add/Search/Edit/Report)	6
Error handling and user feedback	4
Total	20

Total Marks: 85

Additional 15 marks are reserved for presentation, documentation, and report writing, bringing the grand total to 100 marks.