INFT 356: MOBILE APPLICATION DEVELOPMENT – PRACTICAL QUESTIONS

NOTE:

Students are instructed to **upload all their mobile application development codes to their GitHub accounts** for verification purposes. In addition, each student must **write the corresponding codes in their log books**.

The **deadline for submission** is Friday, **22nd August 2025**, and submissions will be accepted **only between 8:00 am and 5:00 pm**. Please note that any submissions outside this timeframe **will not be accepted**.

Question 1: Student Information Manager App

You are tasked to develop a Student Information Manager app. This app will help manage and display student details efficiently. Implement the following functionalities in a single Flutter application:

a. **Welcome Dashboard**

- Create a home screen that **displays your name, course, and university**.
- Style it using **padding, text alignment, and custom fonts** to make it visually appealing.

b. **Interactive Notification**

- Add a **"Show Alert" button**. When pressed, display a **Snackbar** with a welcome message like: "Hello, [Your Name]! Welcome to the Student Info Manager."

c. **Student Counter**

- Implement a **counter** to track the number of students enrolled.
- Add + and - buttons to increase or decrease the count, and display the **current count** prominently.

d. **Student Login Form**

- Design a **login form** with **email and password fields**.
- Validate that the email contains @ and the password has **at least 6 characters**.
- Display a clear **error message** if validation fails.

e. **Profile Picture Display**

- Add a section that displays the **student's profile picture** from an **online image URL**.
- Ensure the image **resizes properly** on different screen sizes.

Question 2: Course Dashboard App

You are tasked with developing a **Course Dashboard App** for students to interact with course content. Implement the following features in a **single Flutter application**:

a. **Course List View**

   o Display a list of **at least 5 courses** using a ListView.

   o Each item should have the **course name, instructor, and an icon** representing the course.

b. **Bottom Navigation Tabs**

   o Implement a **BottomNavigationBar** with three tabs: Home, Courses, Profile.

   o Show the **active tab name** prominently in the body of the screen.

c. **Exit Confirmation Dialog**

   o Add a **"Logout" button** that triggers a **dialog box** asking: "Are you sure you want to exit the app?"

   o Include **Yes** and **No** options with appropriate actions.

d. **Animated Action Button**

   o Include a **button that grows in size** when tapped using AnimatedContainer or AnimatedScale.

   o This button could represent **"Enroll in a course"** or a similar action.

e. **Course Selection Dropdown**

   o Add a **dropdown menu** to select a course category (e.g., Science, Arts, Technology).

   o Display the selected category **below the dropdown dynamically**.