**1. Login Page Using Google with Firebase**

**Module**: Login Page  
**Unit**: Google Login

| **Test Case ID** | **Input Values** | **Expected Output** | **Actual Output** | **Pass/Fail** |
| --- | --- | --- | --- | --- |
| 00001 | Google account linked | Successful login | Successful login | Pass |
| 00002 | Google account not linked | Link Google account | Link Google account | Pass |
| 00003 | Invalid Google account credentials | Error message | Error message | Pass |
| 00004 | Cancel during Google login | Return to login page | Return to login page | Pass |

**2. Posting Query with User Input in English Characters and Numbers**

**Module**: Query Posting  
**Unit**: User Input

| **Test Case ID** | **Input Values** | **Expected Output** | **Actual Output** | **Pass/Fail** |
| --- | --- | --- | --- | --- |
| 00001 | "Query123" | Query posted | Query posted | Pass |
| 00002 | "Query with space 123" | Query posted | Query posted | Pass |
| 00003 | "Query@123" | Error message | Error message | Pass |
| 00004 | "" (Empty input) | Error message | Error message | Pass |
| 00005 | "1234567890" | Query posted | Query posted | Pass |

**3. Bus Route Search Allowing Only Positive Values and Characters**

**Module**: Bus Route Search  
**Unit**: Input Validation

| **Test Case ID** | **Input Values** | **Expected Output** | **Actual Output** | **Pass/Fail** |
| --- | --- | --- | --- | --- |
| 00001 | "Route 123" | Display route information | Display route information | Pass |
| 00002 | "Route ABC" | Display route information | Display route information | Pass |
| 00003 | "-123" | Error message | Error message | Pass |
| 00004 | "Route!@#" | Error message | Error message | Pass |
| 00005 | "" (Empty input) | Error message | Error message | Pass |

**4. Faculty Search Allowing Only English Characters**

**Module**: Faculty Search  
**Unit**: Input Validation

| **Test Case ID** | **Input Values** | **Expected Output** | **Actual Output** | **Pass/Fail** |
| --- | --- | --- | --- | --- |
| 00001 | "Dr. Smith" | Display faculty info | Display faculty info | Pass |
| 00002 | "Professor Jane" | Display faculty info | Display faculty info | Pass |
| 00003 | "12345" | Error message | Error message | Pass |
| 00004 | "Prof!@#" | Error message | Error message | Pass |
| 00005 | "" (Empty input) | Error message | Error message | Pass |

These test cases should help ensure that the system handles user input correctly according to the specified requirements.