Software for Mobile Devices Sessional-I Exam (CS4039)

Date: February 23, 2026

Course Instructor(s)

Mr. Rana Waqas Ali

Total Time:	1 hour
Total Marks:	25
Total Questions:	2

Section

Student Signature

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Attempt all questions on the answer sheet

CLO 1: Apply expertise of both frontend design and backend programming to create android mobile apps.

Question 1: Write short answers for the following questions.   [12 marks]

i. Write java code to display the message **"Welcome Mid-1 SMD"** using Toast when the fragment is attached with its Activity.

ii. Write java code snippet to open Browser App upon button click with user provided url. Assume ids of Button and EditText are **"btnOpen"** and **"etUrl"** respectively.

iii. There are two Fragments with id f1 and f2, write java code to hide f2 and show f1 and when user will go back, app should display f2.

iv. There is a listview with id "list" in xml of a fragment. We want to show 3 different names on this list through fragment code. Write only required code which we need to write in onViewCreated method.

Question 2: You are developing a **Student ID Card Scanner App** for a university.   [13 marks]

The app has:

- A button **"Scan ID Card"**
- When clicked, the app should:
    1. Check for **Camera Permission at runtime**
    2. If permission is granted → Open the camera
    3. If permission is not granted → Request permission
    4. If the user denies permission → Show a dialog which will ask "are you sure?

Questions

You are required to implement the above functionality in **Java (Android)**.

Answer the following:

(A) Manifest Configuration (1 Marks)

Write the required permission inside AndroidManifest.xml.

(B) Runtime Permission Logic (6 Marks)

Write Java code inside an Activity to:

1. Check if camera permission is already granted
2. Request permission if not granted
3. Open camera if permission is granted

(C) Handling Permission Result (4 Marks)

Override the appropriate method to:

- Detect whether permission is granted or denied
- Open camera if granted
- Show a Toast message if denied

(D) Permission Denial Case (2 Marks)

- User selects **"Don't Ask Again"**
- App should show an AlertDialog with message "Are you sure?"