



# University Of Barishal

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING(CSE)

LAB FINAL EXAMINATION

3rd YEAR, 2nd SEMESTER (2021-22)

COURSE CODE: CSE-3212

COURSE TITLE: Mobile App Development Lab

**Part-01 (Theory)**

Time: 1 Hour

Full Marks: 25

1. A student writes the code below:

03

```
Row(
  children: [
    Row(children: [Icon(Icons.star), Text("BU")]),
    Row(children: [Icon(Icons.star), Text("CSE-08")]),
  ],
)
```

a) What will be the error/output? Why is this layout failing?

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Check the following codes:

Write one fixed snippet

5. Given a 5s delay in `myFuture()`:

02

```
void myFunc() {
  print("Mobile App");
  myFuture().then((_) => print("Development"));
  print("Lab");
}
```

Write the exact console order with timing.

6. Data Types from JSON

02

For `{ "id": 101, "elements": ["Sharif", "Shariful", 45.3, {"roll": "21CSE002"}, "Sharifa"] }`:

a) Dart type of the whole object? b) Dart type of "elements"?

7. You are updating a user's profile. When would you use the *PUT* method, and when would you use the *PATCH* method? In Dart, what is the key difference between a List and a Map? 02

8. Give one **technical** advantage of Native (Kotlin/Swift) and one **business** advantage of Flutter. 02

9. Explain the key difference between *FutureBuilder* and *StreamBuilder*. Provide one clear, practical scenario for each. 02

10. Make child1 take **35 percent** and child2 take **65 percent** in a Row (write the minimal widget structure code). 02

12. A student puts an API fetch function inside their *build()* method. They notice the API is called repeatedly, causing the screen to flicker. 02

a) Why is this happening?

b) Where is the correct lifecycle method to place this function so it only runs once?

13. Which *State* lifecycle method is called *only once* when the widget is first inserted into the tree? 01

14. In the Getx architecture, what is a **Dependency Injection**? 01

15. What is the primary purpose of the *dispose()* method in a *State* object? 01