



COMSATS UNIVERSITY ISLAMABAD
Abbottabad Campus
Department of Computer Science

FINAL TERMINAL EXAMINATION FALL 2022

Class: BSE 5TH A,B,C
Subject: Mobile Application Development
Total Time Allowed: 3 HOURS
Student Name: _____

Date: 27-JAN-2023
Instructor: JAWAD KHAN
Max Marks: 100
Registration # _____

SECTION-A [CLO-1]

(Time allowed: 35 mins) (Marks: 35)

A. Choose the correct answer against each questions.

1. What is props?
 - a) which used for rendering dynamic changes within component
 - b) import component from one another component like react-native in app.js, custom component
 - c) which stands for properties and is being used for passing data from one component to another
 - d) neither of the above
2. What is Class components?
 - a) used as container components to handle state management and wrap child components
 - b) which are just used for display purposes - these components call functions from parent components to handle user interactions or state updates
 - c) are the building blocks of any React app and a typical React app will have many of these
 - d) are the building blocks of any React app and a typical React app will have many of these
3. What is the correct syntax to write expression in JSX?
 - a) [expression]
 - b) { expression }
 - c) {{ expression }}
 - d) _expression
4. Which ReactJS command is used to create a new application?
 - a) create-react-app
 - b) new-react-app
 - c) create-new-reactapp
 - d) react-app
5. Consider the below function – which is the correct syntax of arrow function?

```
Msg = function() {  
    return "Good Morning";}
```

- a) `Msg = () => {return "Good Morning";}` c) Both A. and B.
 b) `Msg = () => "Good Morning";` d) None of mentioned
6. Which is the correct arrow function to add two numbers?
 a) `add = (a,b) => a+b;` d) Both A. and C.
 b) `add = (a,b) => return a+b;` e) Both A. and B.
 c) `add = (a,b) => { return a+b;}`
7. Can components be passed as props?
 a) Yes b) No
8. Basic props that required for Button components in react naïve are
 a) `OnPress` c) `Color`
 b) `Title` d) Both A and B
9. _____ renders all its react child components at once, but this has a performance downside.
 a) `<ScrollView>` c) `<SectionList>`
 b) `<FlatList>` d) None of mentioned
10. What is sent to an `Array.map()` function?
 a) a callback function that is called once for each element in the array
 b) the name of another array to iterate over
 c) the number of times you want to call the function.
 d) a string describing what the function should do.
11. _____ defines the distribution of lines along the cross-axis
 a) `Align Self.` c) `Align Content`
 b) `Align Item.` d) None of mentioned
12. Which package is used to install before using the stack navigator.
 c) `npm install react-navigation/stack`
 d) `npm install @react-navigation/stack`
 e) `npx install @react-navigation/stack`
 f) None of these
13. The _____ is responsible for managing your app state and linking your top-level navigator to the app environment.
 a) `ServerContainer.` c) `NavigationContainer`
 b) `Group.` d) None of mentioned
14. _____ components are used to configure various aspects of screens inside a navigator.
 a) `Navigator` c) `NavigationContainer`
 b) `Screen.` d) None of mentioned.
15. The _____ method lets us replace the navigator state with a new state:
 a) `goBack` c) `navigate`

- b) reset d) None of mentioned
16. _____ works like React's setState.
 a) setParams c) setNavigate
 b) setOptions d) None of mentioned
17. The _____ method lets us set screen options from within the component. This is useful if we need to use the component's props, state or context to configure our screen.
 a) setParams c) setNavigate
 b) setOptions d) None of mentioned
18. Create documents and collections in your database
 a) Get Data c) Add Data
 b) Collect Data d) None of mentioned
19. You can order your query by any field included in an equality (=) or in clause.
 a) True b) False
20. In Cloud Firestore, the unit of storage is the document
 a) Documents c) Subcollection
 b) Collection d) None of mentioned
21. The best way to store messages in this scenario is by using subcollections
 a) Documents c) Subcollection
 b) Collection d) None of mentioned
 c)
22. In SQL transaction method how many parameter value can be passed
 a) 1 c) 3
 b) 2 d) 4
23. _____ is a function that representing the transaction to perform. Takes a Transaction as its only parameter, on which it can add SQL statements to execute.
 a) callback c) successCallback
 b) errorCallback d) None of mentioned
24. _____ methods in AsyncStorage is used to fetches an item for a key and invokes a callback upon completion. It also returns a Promise object.
 a) setItems c) getItem
 b) removeItems d) None of mentioned
25. _____ are plain JavaScript objects sent using the react native dispatch() method
 a) Reducer c) View
 b) Action d) State

B. Explain difference between React and React-Native

(10 Marks)

SECTION-B

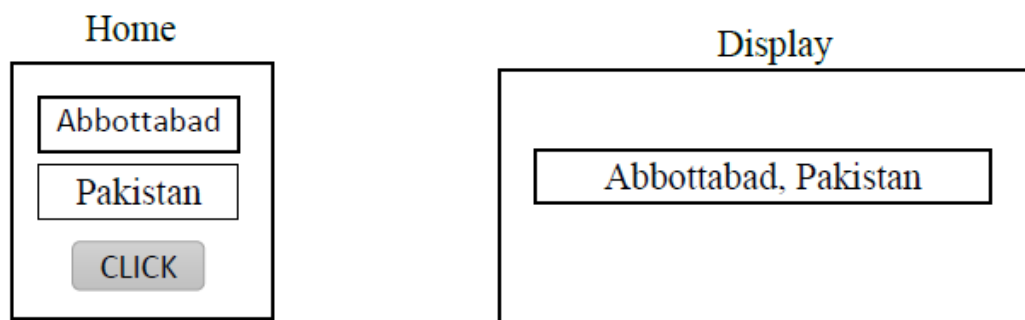
(Marks 35)

1. Write main use of map () function used in javascript? Write a code in javascript that read user input and display table of number enter by user. Hints user map (). [CLO-2][Marks: 5]
2. Write a function component to show grade of a student for the given marks. The marks are provided to a javascript arrow function as argument, e.g., calculateGrade(marks) which is called in the <Text></Text> of function component. Here is the grade distribution:
 < 50 --- F
 >= 50 and < 60 --- E
 >= 60 and < 70 --- D
 >= 70 and < 80 --- C
 >= 80 and < 90 --- B
 >= 90 --- A
[CLO-2] [Marks: 10]
3. What is the difference between FlatList and ScrollView? [CLO-3][Marks: 5]
4. Suppose you have two TextInputs, each containing a number, and a button to add the values of the two TextInputs. When the button is clicked, the values of the TextInputs are added and result should be shown in console. [CLO-3][Marks: 10].
5. How to create stack of screens in react native?
[CLO-4][Marks: 5].

SECTION-C

(Marks: 30)

1. When the user click on button in Home screen, the both strings in TextInputs should be passed separately to the Display screen where they are shown as concatenated string in display function of Display screen.



[CLO-4][Marks: 10].

2. We have a following layout:

ID:	<input type="text" value="5"/>	NAME:	<input type="text" value="Hassan"/>	ADDRESS:	<input type="text" value="E-10
Islamabad"/>
<input type="button" value="INSERT"/>					

Write a method that inserts value in a firestore database collection “students”.

[CLO-5] [Marks: 10]

3. A. Write a program to store the following object using AsyncStorage.
The name of key is @data, and the object is {'name': 'Ali', 'Age': '45'}

B. What do you know about Redux. Briefly explain all its basic parts long with suitable diagram
[CLO-5] [Marks: 10]