Exam Date & Time: 01-Jan-2021 (10:00 AM - 01:45 PM)

CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY

FifthSemester of B. Tech (CE) Examination
December 2020
MOBILE APPLICATION DEVELOPMENT -ELECTIVE-I [CE373]

Marks: 70   **Duration: 225 mins.**

Multiple Choice Question (Section I)

Answer all the questions.

1) Supoose '*High*' and *'Low'* are two button IDs in Android. To place '*Low*' button below the *'High'*, the correct syntax will be_____. (1)

1) android:layout_below="@+id/High"	2) android:layout_down="@+id/High"	3) android:layout_down="@id/High"	4) android:layout_down="@id/High"

2) The _____ method indicates Dalvik Virtual Machine to run the code in addition to the already existing code in the *Oncreate()* of the parent class. (1)

1) super.oncreate(savedInstanceState)	2) super.onCreate(savedInstanceState)	3) super.onCreate(savedinstancestate)	4) super.onCreate(SavedInstanceState)

3) What is default value of android:layout_weight attribute? (1)

1) 0	2) 1	3) 2	4) 3

4) Select incorrect value for android:imeOptions attribute. (1)

1) actionDone	2) actionGo	3) actionReturn	4) actionNone

5) Find odd option out with respect to direct subclasses of ViewGroup in Android. (1)

1) FrameLayout	2) LinearLayout	3) AdapterView	4) CalendarView

6) What will be behaviour of following code?
Intent mycharusat = new Intent();
mycharusat.setAction(Intent.ACTION_VIEW);
mycharusat.setData(android.net.Uri.parse(""https://www.charusat.ac.in""));
startIntent(mycharusat);" (1)

1) Starts a sub-activity	2) Starts a service	3) Starts an activity using an implicit intent	4) Error

7) Imagine that fragment 'A' has been replaced without adding it to the backstack, still you can find Fragment 'A' in FragmentManager. Select the correct statement with respect to above scenario with respect to Android. (1)

1) The defined statement is TRUE.	2) The defined statement is FALSE	3) Undefined behavior of Fragment 'A'	4) You can not replace a fragment.

8) Adding,Removing and Replacing a fragment is collectively known as _____ in Android. (1)

1) FragmentTransaction	2) FragmentManager	3) FragmentClass	4) FragmentView

9) Which of the following code snippet will check whether the query returned an empty set by testing the return value in the Cursor object in Android? (1)

1) cursor.moveFirst()	2) cursor.FirstMove()	3) cursor.moveToFirst();	4) cursor.sendToFirst();

10) Which of the following is not a storage class in SQLite? (1)

1) INTEGER	2) FLOAT	3) NULL	4) TEXT

11) Suppose you are developing an Android application that will show live currency exchange rates. What will be your best choice to implement the same? (1)

1) Creating your own database	2) Website	3) SQLite Database	4) Use Web Services

12) Which is the first method to be called when any iOS application runs? (1)

1) onCreate()	2) viewDidLoad()	3) viewDidAppear()	4) viewWillAppear()

13) Figure out incorrect responder with respect to iOS application. (1)

1) UIAppDelegate	2) UIView	3) UIViewController	4) UIWindow

14) What will be output of following Swift code?
var alphabates = ["A" : "a" , "B" : "b" , "C" : "c"]
print(alphabates["D"]) (1)

1) Compile time error	2) Run time error	3) nil	4) 0

15) _____ keyword will pass array as a reference in Swift. (1)

1) inout	2) outin	3) var	4) ref

16) Output of following Swift (5.x version) code will be _____. (1)

```
struct A
{
var p:Int = 10
func printp()
{
print("printing p")
}
}
struct B : A
{
var q:Int = 20
func printq()
{
print("printing q")
}
}

var ob = B()
ob.printp()
```

1) printing p	2) printing p printing q	3) printing q	4) Error

17) Suppose you are creating a view at X:0, Y:0, width:50, height:50 in iOS application. Now you move that view to X:50. With respect to above scenario find out the correct statement. (1)

1) bound will reflect that change but its frame will not.	2) frame will reflect that change but its bounds will not.	3) Both frame and bound will reflect the changes.	4) Neither Frame nor Bound will reflect the changes.

18) _____ is an object that manages an ordered collection of data items and presents them using customizable layouts in iOS application. (1)

1) UIFrameView	2) UIBoundView	3) UICollectionView	4) UIControllerView

19) Which type of swift pointer is returned when a new SQLite database is successfully opened or created in iOS? (1)

1) OpaquePointer	2) ManagedBufferPointer	3) CVaListPointer	4) UnmanagedPoniter

20) Check the incorrect database type used for iOS application development. (1)

1) SQLite	2) RealDB	3) Realm	4) Core Data

Descriptive (Section II)

Answer 5 out of 7 questions.

1) Explain Android software stack in detail. (5)

2) Differentiate compilation process of Java code and Android code with respect to DVM / ART. (2)

2.1)

2.2) Narrate any two elements of Android Manitest file. (2)

2.3) Give a suitable example that will distinguish usage of onStop() and onDestroy() method in activity life cycle of Android. (1)

3) Create a hotel room information activity which will have information like room no, room type and room aminities in RelativeLayout and also show room images using GridLayout .Use nested layout and write only XML file along with the sketch of design view. (5)

4) How we can set following components in ActionBar? Explain with example. 1. AppIcon 2. Action Overflow (Menu Items). (5)

5) Develop a job portal application using Fragment which will have list of job profiles in one fragment. Based on user's interest, user can choose any one of them and second fragment should display in detail job description along with salary, package, job location etc. Draw the layout files using pencil /pen and write code only for java file(s). (5)

6) How can we pass / receive multiple data values to / from another intent? Describe by using suitable example (java code only). (5)

7) Create JAVA file for following database functionalities :
1. Create table "examData" with fields (ExamId, Name, Enrollment, Sem)
2. Create method "insertExamDetails" to insert exam details in tblCharusatExam (5)

Descriptive (Section III)

Answer 5 out of 7 questions.

1) Write a clear note on any five methods of SQLiteOpenHelper class in Android. (5)

2) (5)

Give simple description of following iOS / Xcode terminolgies.
1. Cocoa Touch Framework
2. Info.plist
3. AppDeligate.swift
4. Segues
5. ViewController.swift

3)   How mobile application development differs in Android Studio and Xcode?   (5)

4)   What is optional variable in Swift? Mention any practical application where optional variable can be useful. Explain three ways to unwrap it.   (5)

5)   Define a function in swift called sortmyarray() that will take one dimensional array as a input and sort it (The function shoud accept array as reference).   (5)

6)   Explain following UI components with respect to iOS application development:
1)Scroll View
2)Tabbed View   (5)

7)   Specify necessary steps for database connectivity in iOS with a simple program.   (5)

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