

Unique paper Code 42343601

Name of the Course B.Sc. (Prog.) Physical Science/ Mathematical Science (SEC)

Name of the Paper Android Programming

Semester : VI

Year of Admission: 2015, 2016, 2017 & 2018

Maximum Marks : 75

Duration : Three hours

Instructions for candidates:

Attempt any four questions. All questions carry equal marks.

Q1.	<p>Create an Android App with two edit boxes (to take two numbers from user) and four buttons. The details of four buttons are:</p> <table border="1" data-bbox="397 781 1386 1386"><thead><tr><th data-bbox="400 786 762 848">Label</th><th data-bbox="767 786 1383 848">On Click Functionality</th></tr></thead><tbody><tr><td data-bbox="400 855 762 960">1. Show Double</td><td data-bbox="767 855 1383 960">Double of the first number is shown in second edit box.</td></tr><tr><td data-bbox="400 967 762 1072">2. Show Half</td><td data-bbox="767 967 1383 1072">Half of the second number is shown in first edit box.</td></tr><tr><td data-bbox="400 1079 762 1184">3. Reset</td><td data-bbox="767 1079 1383 1184">Clears the contents of both the edit boxes</td></tr><tr><td data-bbox="400 1191 762 1382">4. Close</td><td data-bbox="767 1191 1383 1382">A dialog box appears, asking user "Are you sure to close the app?" The app is closed only if user chooses yes on dialog box.</td></tr></tbody></table> <p>Write the XML and the Java code.</p>	Label	On Click Functionality	1. Show Double	Double of the first number is shown in second edit box.	2. Show Half	Half of the second number is shown in first edit box.	3. Reset	Clears the contents of both the edit boxes	4. Close	A dialog box appears, asking user "Are you sure to close the app?" The app is closed only if user chooses yes on dialog box.	
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Q2.	<p>How is Dynamic method dispatch useful for resolving call to Overridden methods in Java, explain with suitable example? What are intents? What are they used for? A main activity has an edit box and a button, when user clicks the button the contents of the edit box are sent to the second activity where the reverse of this is shown. Both the activities have 'Close' button. Write the XML and the Java code for the same.</p>											
Q3.	<p>What is Android Runtime? How is multiple inheritance implemented in Java? How is it used in Android programming? Write XML and Java code for a menu-driven application for changing the background color of the application. The menu should have 5 items corresponding to different color names.</p>											

Q4.	<p>Is it necessary to include multiple radio buttons in a radio group? Justify your answer.</p> <p>Differentiate between AndroidManifest.xml and activity_main.xml files.</p> <p>Write the steps to deploy an application on USB-connected android device and steps to create Android Virtual Device.</p> <p>Draw Android activity life cycle and give callback methods associated with all activities involved for the following user actions:</p> <ul style="list-style-type: none"> (i) When you move from Activity A to previous Activity B. (ii) When you move from Activity B to some other Activity X in another application. (iii) When you move from Activity B to Main Activity. 								
Q5.	<p>Name the class which represents the SQLiteDatabase results in a table format. Discuss any 2 methods of this class.</p> <p>Write an application to create a Database ABC_School with Table Student (StudentId INTEGER AUTOINCREMENT, StudentName TEXT, DepartmentId INTEGER) using SQLite Database. Insert the following 3 records into the table.</p> <table border="1" data-bbox="300 864 1401 1189"> <thead> <tr> <th>StudentName</th> <th>DepartmentId</th> </tr> </thead> <tbody> <tr> <td>ABC</td> <td>4</td> </tr> <tr> <td>DEF</td> <td>2</td> </tr> <tr> <td>XYZ</td> <td>6</td> </tr> </tbody> </table> <p>Delete the row where DepartmentId =2.</p>	StudentName	DepartmentId	ABC	4	DEF	2	XYZ	6
StudentName	DepartmentId								
ABC	4								
DEF	2								
XYZ	6								
Q6.	<p>Write and explain the code to display text notification (toast) on screen with the message "OBS Examination Submitted Successfully!" for a long period of time.</p> <p>What is the difference between Broadcast Receivers and Content Providers?</p> <p>What are Linear, Table, Frame and Relative layouts in android? Also differentiate between List View and Grid View layouts.</p>								