

[This question paper contains 7 printed pages]

Your Roll No. :

Sl. No. of Q. Paper : 1740A F-8

Unique Paper Code : 2341802

Name of the Course : B.Tech. Computer Science

Name of the Paper : Mobile Applications on
Android Platform

Semester : VIII

Time : 3 Hours Maximum Marks : 75

Instructions for Candidates :

- Write your Roll No. on the top immediately on receipt of this question paper.
- Section - A** is Compulsory.
- Attempt any **four** questions from **Section - B**.
- Parts of a question must be answered together.

SECTION - A

- (a) Describe the requirement of Kernel layer in Android architecture. 2

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(b) Define the purpose of start Activity For Result () method in Android application.

2

(c) Briefly explain virtual device and SDK manager.

2

(d) How is the menu resource (defined in XML file, say "my_menu") inflated in the function on Create Options Menu () ?

3

(e) Explain Delegation Event Model in JAVA.

3

(f) How is the data fetched from SQLite database using Cursor ?

3

(g) Describe the use of intent in Android ?
Write a code to view the webpage.

4

(h) Briefly explain the following classes :

4

i. Check Box

ii. Image View

(i) Explain the following layouts :

4

i. Relative Layout

ii. Frame Layout

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(j) Differentiate between 'Inner Class' and 'Anonymous Class' with suitable examples.

4

(k) Differentiate between 'throw' and 'Throws' in JAVA with a suitable example (s).

4

SECTION - B

2. (a) Briefly describe On Item Selected Listener () used by the Spinner class.

4

(b) Consider the following intent present in :

6

Activity Q :

Intent intent = new Intent (Intent.ACTION_VIEW);

Intent.set Data (Uri.parse ("http://du.ac.in"));

Check the compatibility of the following activities (Activity A, Activity B and Activity C with action and data of Activity Q, given above ? Justify your answer.

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Activity A:

```
<activity android:name=".Activity A">
<intent-filter>
<action android:name="android.intent.action.
WEB_SEARCH"/>
<action android:name="android.intent.action.
MAIN"/>
< category android:name=" android.intent.
category.LAUNCHER"/>
<data android:scheme="http"/>
</intent-filter>
</activity>
```

Activity B:

```
<activity android:name=".ActivityB">
<intent-filter>
<action android:name="android.intent.action.
WEB_SEARCH"/>
<action android:name="android.intent.action.
MAIN"/>
```

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```
<category android:name="android.intent.
category.DEFAULT"/>
```

```
<data android:mimeType="text/plain"/>
```

```
</intent-filter>
```

```
</activity>
```

Activity C:

```
<activity android:name=".Activity C">
<intent-filter>
<action android:name="android.intent.action.
VIEW"/>
<action android:name="android.intent.action.
MAIN"/>
< category android:name="android.intent.
category.DEFAULT"/>
<category android:name="android.
intent.category.LAUNCHER"/>
<data android:scheme="http"/>
<intent-filter>
</activity>
```

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3. (a) Explain grid view with the examples.

4

- (b) Describe SQ Lite database. Write code for adding and removing data. from SQ Lite database.

6

4. (a) Differentiate between Abstract class and Interfaces in JAVA.

4

- (b) Create a simple registration form (including e-mail id, password with appropriate input type and a button). On clicking the button, pass the details to another activity and display the data.

6

5. (a) Explain activity lifecycle of Android application.

4

- (b) Write a code snippet to create a dialog box.

6

6. (a) Briefly describe the features (any **four**) of Android Application.

4

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- (b) Briefly explain runtime polymorphism and dynamic binding with appropriate examples.

6

7. Write short note on any **five** of the following :

10

- (a) ART
- (b) Density independent pixel
- (c) R.java file
- (d) Ninepatch bitmaps
- (e) Array adapter
- (f) Finally Block (JAVA)
- (g) Static Class in JAVA

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