22617

Seat No.

Instructions – (1) All Questions are *Compulsory.*

(2) Answer each next main Question on a new page.

(3) Illustrate your answers with neat sketches wherever necessary.

(4) Figures to the right indicate full marks.

(5) Assume suitable data, if necessary.

(6) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

1. **Attempt any FIVE of the following:** **10**

a) List any four features of android operating system.

b) Describe role of Emulator.

c) List various components of android UI design.

d) List any two attributes of Toggle Button.

e) Define service in android operating system.

f) Explain two methods of Google Map.

g) Write down syntax to create an intent and start another activity.

2. **Attempt any THREE of the following:** **12**

a) Explain need of android.

b) Compare JVM and DVM. (any four points)

c) Explain android security model.

d) Draw and explain activity life cycle.

Marks

3. Attempt any THREE of the following: **12**

a) Describe various installation steps of android studio and its environment.

b) Explain scrollview with its attributes and with suitable example.

c) Write significance of SQLite database in android.

d) Explain importance or use of developer console.

4. Attempt any THREE of the following: **12**

a) Describe linear layout and frame layout with example.

b) Write a program to create first display screen of any search engine using auto complete text view.

c) What is fragment? Explain with example.

d) Describe types of permissions used while developing android application.

e) Develop a program to send an SMS.

5. Attempt any TWO of the following: **12**

a) Develop android application to enter one number and display factorial of a number once click on button.

b) Write a program to capture an image using camera and display it.

c) Write a program to show users current location.

6. Attempt any TWO of the following: **12**

a) Write a program to display the list of sensors supported by device.

b) Write a program to send e-mail.

c) Write a program to show five checkboxes and toast selected checkboxes using linear layout.

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