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22223

3 Hours / 70 Marks

Seat No.

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- 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) State android ECO system.
 - b) List various tools for android application development.
 - c) List various layouts used in android UI design.
 - d) Name any four attributes of Edit Text control.
 - e) State the use of fragments in android App development.
 - f) Define SMS service in android application development.
 - g) List different types of sensors used in android.

P.T.O.

- 2. Attempt any THREE of the following:** **12**
- a) Describe android and importance of OHA.
 - b) Explain Dalvik Virtual Machine and state it's importance.
 - c) Describe process of getting the map API Key.
 - d) Explain multimedia framework in android.
- 3. Attempt any THREE of the following:** **12**
- a) Describe various installation steps of android studio and its environment.
 - b) Explain Gridview with its attributes with suitable example.
 - c) Explain text to speech conversion technique in android.
 - d) Describe steps for deploying android application on Google Play Store.
- 4. Attempt any THREE of the following:** **12**
- a) Describe directory structure and its components.
 - b) Develop an android application for Date and Time Picker.
 - c) Explain property animation method to animate the properties of view object with example.
 - d) Describe permissions required for android application development.
 - e) Develop an android application to show current location of an user's car.
- 5. Attempt any TWO of the following:** **12**
- a) Design a employee registration form using UI component.
 - b) Develop an android application for taking student feedback with database connectivity.
 - c) Explain Geocoding and Reverse Geocoding with suitable example.

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

- a) Design an android application to show the list of paired devices by Bluetooth.
 - b) Develop an android application for sending Short Message Service (SMS).
 - c) Explain how linear and frame layout is used to design an android application with suitable example.
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