

22617

12223

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 answer 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) Define OHA and state goal of OHA.
 - b) Define Android Virtual Devices (AVD).
 - c) State how the APK files are built?
 - d) Enlist the elements of UI.
 - e) State the uses of Intent in Android.
 - f) Name any four methods to get location data in android.
 - g) Explain significance of content provider.
- 2. Attempt any THREE of the following: 12**
- a) Describe the different features of Android.
 - b) Explain features of Android SDK.
 - c) Explain the Android security model.
 - d) Elaborate the need of permissions in Android. Explain the permissions to set system functionalities like SEND-SMS, bluetooth.

P.T.O.

- 3. Attempt any THREE of the following:** **12**
- a) Explain data and time picker with its method.
 - b) Explain the steps to install and configure Android studio and SDK.
 - c) Explain the activity life cycle.
 - d) Explain the steps to deploy app on Google Play Store.
- 4. Attempt any THREE of the following:** **12**
- a) Explain the fundamentals of UI design in detail.
 - b) Write a program to display a rectangular progress bar.
 - c) Explain Android system architecture in detail.
 - d) Explain the procedure of Geo-coding and reverse Geo-coding.
 - e) Develop an application to send and receive SMS (Write only ·Java and permission tag in manifest file).
- 5. Attempt any TWO of the following:** **12**
- a) Develop a program to send and receive an Email.
 - b) Develop a program for providing bluetooth connectivity.
 - c) Develop a program to implement :-
 - i) List view of 5 items
 - ii) Grid view of 4×4 items
 - iii) Image view.
- 6. Attempt any TWO of the following:** **12**
- a) Develop an application to store customer's details like, customer-id, customer-name, mobile number, address, pin-code and retrieve customer information using customer-id in SQLite databases.
 - b) Write a program to find the direction from user's current location to MSBTE, Bandra. (Write only ·Java and manifest file).
 - c) Develop a simple calculator using relative layout.
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