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**Roll No. ....**

**TMC-402**

**M. C. A. (FOURTH SEMESTER)**

**END SEMESTER**

**EXAMINATION, May, 2022**

**MOBILE APPLICATION DESIGN AND**

**DEVELOPMENT**

**(Elective-III)**

**Time : Three Hours**

**Maximum Marks : 100**

**Note :** (i) All questions are compulsory.

(ii) Answer any *two* sub-questions among (a), (b) and (c) in each main question.

(iii) Total marks in each main question are **twenty**.

(iv) Each sub-question carries 10 marks.

1. (a) Illustrate Boot process of Android with neat diagram. (CO1)

(b) What is the different App component available in Android ? Explain in detail.

(CO1)

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(2)

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- (c) Explain default Folder structure of Android. (CO1)
- 2. (a) Explain the following : (CO2)
  - (i) Text View
  - (ii) Radio Button
  - (iii) Image View
  - (iv) Toast
- (b) Explain fragment. Why we use it ? Explain Fragment lifecycle with neat diagram. (CO2)
- (c) Explain Intent and its types with proper example. (CO2)
- 3. (a) How Bluetooth can be turned on/off using Android ? Explain with proper program. (CO3)
- (b) How can we play audio and video file through Android ? Explain. (CO3)
- (c) Explain sensors. How does sensor work ? What are the different categories of sensors ? (CO3)
- 4. (a) Why we use External storage in Android ? Explain with the help of a program. (CO4)

(3)

- (b) Explain with an example how content provider is used to access database in Android ? (CO4)
- (c) How SQLite is used in Android ? Explain. (CO4)
- 5. (a) How many types of web services can be used in android ? Explain. (CO5)
- (b) Discuss with the help of a program how messages will be sent. (CO5)
- (c) Write the steps for publishing Android APP. (CO5)

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