

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VII (NEW) EXAMINATION – SUMMER 2022****Subject Code:3170726****Date:06/06/2022****Subject Name:Mobile Application Development****Time:02:30 PM TO 05:00 PM****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Simple and non-programmable scientific calculators are allowed.

MARKS

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| Q.1 | (a) Differentiate between JVM and DVM. | 03 |
| | (b) Enlist and define the components of android application. | 04 |
| | (c) Describe the Android architecture with neat diagram in detail. | 07 |

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| Q.2 | (a) What is Toast? Explain How to customize it? | 03 |
| | (b) What is AndroidManifest.xml? Write its usages with example. | 04 |
| | (c) Explain any four UI Components of Android application. | 07 |

OR

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| (c) | Develop a Registration form using android UI components, which take details from user like Name, Email ID, Password, Confirm Password, Mobile Number, gender etc... On click of register button all details should show on another activity with a welcome message. | 07 |
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| Q.3 | (a) What is Fragment? Differentiate between Activity and fragment. | 03 |
| | (b) Discuss the need of permissions in Android. Write the permissions required to set system functionalities like Bluetooth, camera, internet. | 04 |
| | (c) What is an Activity? Explain the activity life cycle with all events in detail. | 07 |

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| Q.3 | (a) Enlist and define types of Menus in android. | 03 |
| | (b) Explain the concept of Recycler view. Write down the steps to implement recycler view in android application. | 04 |
| | (c) Define services in Android operating system. Explain service Lifecycle with neat diagram. | 07 |

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| Q.4 | (a) What do you mean by NoSQL? How it is differ from relational database? | 03 |
| | (b) What do you mean by Async task? Explain with example. | 04 |
| | (c) Develop an application to store student details like roll no, name, branch, marks, percentage and retrieve student information using roll no. in SQLite databases. | 07 |

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| Q.4 | (a) Describe the task of Notification Manager in Android. | 03 |
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| | (b) | Can we use the mobile screen as a Canvas to draw any shapes on it? Write the steps for using Graphics objects in an android application. | 04 |
| | (c) | List different types of data storage available in Android. Describe the significance of SQLite database in Android. | 07 |
| Q.5 | (a) | Describe Tween Animation in android. | 03 |
| | (b) | Write a program to locate user's current location. (Write ONLY .java and manifest file) | 04 |
| | (c) | What is Media Player in android? Explain how to play audio using Media Player | 07 |
| OR | | | |
| Q.5 | (a) | List sensors in Android and explain any one in detail. | 03 |
| | (b) | Write steps to publishing android applications. | 04 |
| | (c) | Write the steps to use firebase database in an android application for CRUD operation. | 07 |
