

**B. Sc. IT 6<sup>TH</sup> SEMESTER**  
**DISCIPLINE SPECIFIC ELECTIVE-III**  
**OPTION - A**

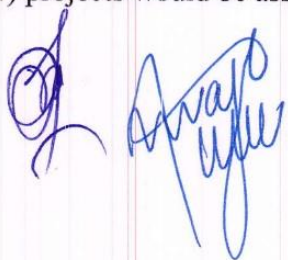
**BIT616D6A: PROJECT WORK / DISSERTATION**

**4 + 2 CREDITS**

This option is to be offered only in 6th Semester.

The students will be allowed to work on any project based on the concepts studied in core / elective or skill based elective courses. The group size should be maximum of Four (0) students. Each group will be assigned a teacher as a supervisor who will handle both their theory as well lab classes.

A maximum of Four (04) projects would be assigned to one teacher.

A handwritten signature in blue ink, appearing to be 'S. R. Singh', is written over the text.

**B. Sc. IT 6<sup>TH</sup> SEMESTER**  
**DISCIPLINE SPECIFIC ELECTIVE-III**

**OPTION - B**

**BIT616D6B: ANDROID PROGRAMMING**

**4 + 2 CREDITS**

**Unit I**

**Introduction:** History of Android, Introduction to Android Operating Systems, Android Development Tools, Android Architecture.

**Unit II**

**Overview of object oriented programming using Java:** OOPs Concepts: Inheritance, Polymorphism, Interfaces, Abstract class, Threads, Overloading and Overriding, Java Virtual Machine.

**Unit III**

**Development Tools:** Installing and using Eclipse with ADT plug-in, Installing Virtual machine for Android sandwich/Jelly bean (Emulator), configuring the installed tools, creating a android project – Hello Word, run on emulator, Deploy it on USB-connected Android device.

**Unit IV**

**User Interface Architecture:** Application context, intents, Activity life cycle, multiple screen sizes.

**User Interface Design:** Form widgets, Text Fields, Layouts, Button control, toggle buttons, Spinners (Combo boxes), Images, Menu, and Dialog.

**Database:** Understanding of SQLite database, connecting with the database.

**Book Recommended:**

1. Android application development for java programmers. By James C. Sheusi. Publisher: Cengage Learning, 2013.

