



**EAST WEST UNIVERSITY**  
**Department of Computer Science and Engineering**  
**B.Sc. in Computer Science and Engineering Program**  
**Mid Term II Examination, Summer 2021 Semester**

**Course:** CSE 489 Mobile Application Development, Section-1  
**Instructor:** Md Mostofa Kamal Rasel, Assistant Professor, Department of CSE  
**Full Marks:** 30 (20 will be counted for final grading)  
**Time:** 1 Hour and 20 Minutes

**Note:** There are **6 (SIX)** questions, answer **ALL** of them. Mark of each question are mentioned at the right margin.

1. We know that a broadcast can be sent either synchronously (ordered) or asynchronously? **Explain** each broadcast, and the **scenario** where you are going to use them. [Mark: 2+3]
2. The security of an android device and the data that are being transferred from one app or device to another can be at risk during the broadcasting. As an expert android application developer, **suggest** the important security measures that must be followed for developing any broadcasting app? [Mark: 2]
3. If you have a large amount of data to store as persistent data, **which** of the storage method will you select? **Why** do you think that your selected method is the most efficient to store large amount of data? **Explain** with a scenario. [Mark:1+2+3]
4. Suppose that an android application for e-commerce system displays different images such as the logo and icon of the app, user's photo, sellers' photos, brand logos, icons for item categories, and icons of the items. Note that these photos can either be static or dynamically be changed over the time. Based on the above scenario, answer the following questions: [Mark: 2+5]
  - a) **Which** methods will you prefer to use for storing the different kind of images?
  - b) Based on your experience, **discuss** the pros and cons of your selected methods?
5. Apps in the mobile device sometimes become unresponsive. As a student of the computer science and engineering, you know the reasons of such behavior of the apps. Based on your experience and knowledge, answer the following questions: [Mark: 2+3]
  - a) **What** are the reasons of being an app unresponsive?
  - b) **Discuss** some solutions that must be considered while developing any android application for avoiding such unresponsive behavior.
6. Does every android process have its own thread? **Discuss** the handling of android multi threads with **examples**. [Mark: 1+4]