

QP CODE 2100550101

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# DMI-ST. EUGENE UNIVERSITY

ZAMBIA

DEGREE EXAMINATION – DECEMBER 2023

Semester: X 055CS101 MOBILE COMPUTING

Max. Marks: 100

Time: 3:00 Hours

Answer any FIVE Questions (5 x 20 = 100 Marks)

1. a) Explain the concept of mobility of bits and bytes and discuss its significance in mobile computing. (10 Marks)
- b) Explain the concept of dialogue control and discuss its importance in mobile computing. (10 Marks)
2. a) Describe what is multiple access? Why multiple access is important? (10 Marks)
- b) Explain an IVR application development in detail with an example. (10 Marks)
3. a) Explain the GPRS architecture with its constituent elements. (10 Marks)
- b) Write short notes on following:
  - i. Data services in GPRS
  - ii. Application for GPRS
  - iii. Advantages of GPRS
  - iv. Disadvantages of GPRS(10 Marks)
4. a) Discuss in details the various wireless LAN advantages. (10 Marks)
- b) Describe the contrast between 3G and Wi-Fi technologies. (10 Marks)
5. a) Discuss the security considerations and best practices when developing mobile applications using MIDP (Mobile Information Device Profile). (10 Marks)
- b) Explain the concept of Optional Packages in Java ME (Micro Edition). Discuss the significance of Optional Packages in mobile application development. (10 Marks)
6. a) Elaborate top five mobile security concerns in detail. (10 Marks)
- b) Describe in details about three tier architecture for mobile computing. (10 Marks)
7. a) Describe in details about the various categories of RFID. (10 Marks)
- b) i) Differentiate between mobile IP with IPV6. (10 Marks)
- ii) Briefly explain java card with its architecture. (10 Marks)