C. U. SHAH UNIVERSITY
Winter Examination-2019

Subject Name: Mobile Computing and Application Development

Subject Code: 4TE07MCA1   **Branch: B.Tech (CE,IT)**

Semester: 7   **Date : 15/11/2019**   **Time : 10:30 To 01:30**   **Marks : 70**

Instructions:
   (1) Use of Programmable calculator & any other electronic instrument is prohibited.
   (2) Instructions written on main answer book are strictly to be obeyed.
   (3) Draw neat diagrams and figures (if necessary) at right places.
   (4) Assume suitable data if needed.

Q-1   **Attempt the following questions:**   **(14)**

   a) List any four characteristics of Mobile Communication.
   b) Define BTS and BSC.
   c) List any four android layout types.
   d) State importance of event driven programming.
   e) Explain purpose of R.Java and Strings.xml File
   f) Write full form of OHA and AVD
   g) Differentiate between foreground services and background services of Android.
   h) Define Activity and Layout.
   i) List four layers of Android Framework
   j) Define Frequency reuse.
   k) What is cell splitting and cell Sectoring?
   l) What is difference between handoff and handover?
   m) What is Middleware? List different types of Middleware.
   n) Differentiate between Linear Layout and Relative Layout

Attempt any four questions from Q-2 to Q-8

Q-2   **Attempt all questions**   **(14)**
   a) Write short note on: 1G, 2G, 2.5G and 3G mobile communications.   **(07)**
   b) Explain functional architecture of GSM system and types of services   **(07)**
       provided by GSM.

Q-3   **Attempt all questions**   **(14)**
   a) Compare AOC Client and SOC Client.   **(07)**
   b) Write a note on Bluetooth protocol stack.   **(07)**

Q-4		**Attempt all questions**	**(14)**
	a)	Create a Login application which takes username and password from user. Whenever password is admin, redirect to second activity and display Welcome User message to second activity, otherwise toast message Invalid Credentials.	**(07)**
	b)	Discuss the network elements in GPRS that are different from GSM. Also discuss applications and limitations of GPRS.	**(07)**
Q-5		**Attempt all questions**	**(14)**
	a)	Explain Mobile Originated and mobile terminated call procedure with suitable example.	**(07)**
	b)	What is Direct Sequence Spread Spectrum technology? How does it work in CDMA technology?	**(07)**
Q-6		**Attempt all questions**	**(14)**
	a)	Explain Android application framework with their components.	**(07)**
	b)	Explain WiFi and WiMax technology in detail.	**(07)**
Q-7		**Attempt all questions**	**(14)**
	a)	What is RFID? Differentiate active and passive RFID.	**(07)**
	b)	Explain Wireless LAN security issues and also explain hidden & exposed terminal problem in wireless LAN.	**(07)**
Q-8		**Attempt all questions**	**(14)**
	a)	Explain and difference between Indirect TCP, Snooping TCP and Mobile TCP.	**(07)**
	b)	Explain Android Text View and Button view controls with an example.	(07)