C.U.SHAH UNIVERSITY
Winter Examination-2015

Subject Name: Wireless Mobile Network Architecture

Subject Code: 5TE01WMN1   **Branch:** M.Tech (EC)

Semester: 1   **Date:** 23/12/2015   **Time:**10:30 **To** 1:30   **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 the right places.
  (4) Assume suitable data if needed.

SECTION – I

Q-1   **Attempt the Following questions**   **(07)**

  a. Enlist the popular cellular telephony networks
  b. What do you mean by handoff?
  c. What do you mean by roaming?
  d. Enlist the strategies to detect the need for a handoff.
  e. For handoff management, which three issues must be considered?
  f. Define inter-BS handoff
  g. Define intersystem handoff

Q-2   **Attempt all questions**   **(14)**
  (a) Explain briefly different popular cellular telephony networks   **(07)**
  (b) Explain roaming management.   **(07)**

OR

Q-2   **Attempt all questions**   **(14)**
  (a) Describe Inter-BS Handoff and Intersystem Handoff.   **(06)**
  (b) Explain in detail mobile controlled handoff strategy for handoff detection.   **(08)**

Q-3   **Attempt all questions**   **(14)**
  (a) What is the significance of link transfer? Explain subrating MCHO link transfer.   **(07)**
  (b) Draw PACS architecture and interface and describe each in brief.   **(07)**

Q-3   **Attempt all questions**   **(14)**
  (a) Explain adding and dropping BSs with MAHO soft handoff.   **(07)**
  (b) What is the significance of link transfer? Explain MCHO link transfer.   **(07)**

SECTION – II

Q-4   **Attempt the Following questions**   **(07)**
  a. Enlist the different channel assignment schemes
  b. Compare hard and soft handoff.
  c. What are the main architecture entities in a CDPD network?
  d. What are the key functions of BTS?

	e.	What are the key functions of BSC?	
	f.	Draw the GSM burst structure.	
	g.	Enlist the different types of GSM Short Message services.	
Q-5		**Attempt all questions**	**(14)**
	(a)	Draw GSM architecture and explain the functions and significance of each block.	**(07)**
	(b)	Explain GSM SMS network architecture with diagram.	**(07)**

OR

Q-5		**Attempt all questions**	**(14)**
	(a)	Explain in detail with diagram the GPRS architecture and protocols.	**(07)**
	(b)	Describe WAP model, gateway and protocol.	**(07)**

Q-6		**Attempt all questions**	**(14)**
	(a)	Explain the operation of Mobile-IP.	**(07)**
	(b)	Describe WLL architecture with diagram.	**(07)**

OR

Q-6		**Attempt all Questions**	**(14)**
	(a)	Compare W-CDMA and CDMA 2000 and explain quality of service in 3G.	**(07)**
	(b)	Explain GSM on net architecture with diagram.	**(07)**