

**C.U.SHAH UNIVERSITY**

WADHWAN CITY

University (Winter) Examination -2013

Course Name : M.Tech(EC)Sem-I

Subject Name: -Wireless Mobile Network Architecture

Duration :- 2:30 Hours

Date : 8/1/2014

**Instructions:-**

- (1) Attempt all Questions of both sections in same answer book / Supplementary.
- (2) Use of Programmable calculator & any other electronic instrument is prohibited.
- (3) Instructions written on main answer Book are strictly to be obeyed.
- (4) Draw neat diagrams & figures (If necessary) at right places.
- (5) Assume suitable & Perfect data if needed.

**SECTION – I**

- |           |   |    |
|-----------|---|----|
| Q.1       | (a) Compare Soft Handoff and Hard Handoff.                            | 02 |
|           | (b) Draw a PCS network architecture.                                  | 02 |
|           | (c) Compare Cellular and Cordless Technology.                         | 02 |
|           | (d) Explain VLR.  | 01 |
| Q.2       | (a) Explain the concept of path minimization with suitable example.   | 05 |
|           | (b) Explain the MS registration process when mobile is in roaming.    | 05 |
|           | (c) Explain the measurements use to determine the quality of channel. | 04 |
| <b>OR</b> |   |    |
| Q.2       | (a) Explain roaming management under SS7.                             | 05 |
|           | (b) Explain Sub-rating scheme in detail.                              | 05 |
|           | (c) Explain PACS network interface.                                   | 04 |
| Q.3       | (a) Explain MAHO/NCHO link transfer.                                  | 07 |
|           | (b) Explain WAP protocol stack in detail.                             | 07 |
| <b>OR</b> |   |    |
| Q.3       | (a) Compare WCDMA and CDMA 2000.                                      | 07 |
|           | (b) Explain H-323 architecture of iGSM.                               | 07 |

**SECTION – II**

- |           |   |    |
|-----------|---|----|
| Q.4       | (a) Explain the concept of Mobile IP.                                 | 02 |
|           | (b) Draw the flowchart of Non-Prioritized scheme of handoff.          | 02 |
|           | (c) Which are the reasons of Handoff failure.                         | 02 |
|           | (d) What is the difference between mobile and wireless communication. | 01 |
| Q.5       | (a) Explain the basic GSM architecture.                               | 05 |
|           | (b) Write a short note on HSCSD.                                      | 05 |
|           | (c) Explain SMS protocol hierarchy.                                   | 04 |
| <b>OR</b> |   |    |
| Q.5       | (a) Explain CDPD roaming management.                                  | 05 |
|           | (b) Explain GSM SMS network architecture in detail.                   | 05 |
|           | (c) Explain WAP network configuration in detail.                      | 04 |
| Q.6       | (a) Explain the location tracking and call setup procedure in GSM.    | 07 |
|           | (b) Explain GSM MAP protocol hierarchy.                               | 07 |
| <b>OR</b> |   |    |
| Q.6       | (a) Explain CDPD architecture in detail.                              | 07 |
|           | (b) Explain GSM protocol interface.                                   | 07 |

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