

C.U.SHAH UNIVERSITY

Summer-2015

Subject Code: 4CS04IAN2 Subject Name: **Wireless Communication & Mobile Technology**

Course Name: B.Sc. (IT)

Date: 21/5/2015

Semester: IV

Marks: 70

Time: 10:30 TO 01:30

Instructions:

- 1) Attempt all Questions in same answer book/Supplementary.
- 2) Use of Programmable calculator & any other electronic instrument 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 Explain following terms.
- | | | |
|---|-----------------|---|
| 1 | Guard Band | 2 |
| 2 | Spread Spectrum | 2 |
| 3 | TDM | 3 |
- Q:2 a Attempt the following questions.
- | | | |
|---|--|---|
| | 1. Explain wireless Electromagnetic spectrum (frequency bands)and use of each frequency. | 4 |
| | 2. Write a short note on PSTN. | 4 |
| b | Explain GPRS system architecture. | 6 |
- OR
- Q:2 a Explain TCP over Wireless Network. 6
- b Explain different methods of propagation. 4
- c Explain X.25 network. 4
- Q:3 a Explain High data rate personal wireless network. Explain DSSS and FHSS. 7
- b Explain Wi-Fi properties and different modes. 7
- OR
- Q:3 a . Explain GEO, MEO, LEO Satellite communication. 7
- b What is GSM ? Explain Cellular network of GSM architecture. 7

SECTION-II

- Q:4 Answer the following Terms.
- | | | |
|---|-------------|---|
| 1 | Bluetooth | 2 |
| 2 | Multiplexer | 2 |
| 3 | HSCSD | 3 |
- Q:5 a Explain Wireless Protocol stack (Layers of wireless). 6
- b Write a note on Mobile IP. 4
- c What is GPS? Explain GPS Architecture. 4
- OR



| | | | |
|-----|---|--|---|
| Q:5 | a | Explain different 2nd and 2.5 Wireless generation network. | 6 |
| | b | Explain WI-Max wireless Network technology. | 4 |
| | c | Explain ATM and Frame relay. | 4 |
| Q:6 | a | Explain 3 rd generation wireless technology, and it's limitation of third generation. | 7 |
| | b | Explain any two Real Time interactive application protocols. | 7 |
| OR | | | |
| Q:6 | a | Explain VOIP and IP Telephony system for audio/ video conference. | 7 |
| | b | Explain Iridium in detail. | 7 |

