

Seat No. : \_\_\_\_\_

**AN-106**

**May-2016**

**M.Sc., Sem.-VIII (CA & IT)**

**Mobile Computing**

**Time : 3 Hours]**

**[Max. Marks : 100**

**Instruction :** Draw the figure wherever necessary.

1. (A) Attempt the following (any 3) : **15**
- (1) What is Multiplexing ? Explain FDM and TDM techniques.
  - (2) What is Signal propagation ? Explain Signal Propagation Effects and Multipath Propagation.
  - (3) What is spread spectrum ? Explain Direct Sequence spread spectrum.
  - (4) What is MAC ? Explain slotted and classical Aloha techniques and CSMA techniques with example.
- (B) Attempt the following : **5**
- (1) Modulation
  - (2) Explain MSK
  - (3) Use of CPM
  - (4) Difference between narrowband and broadband signal
  - (5) What do you mean by Dwell time ?
2. (A) Attempt the following (any 3) : **15**
- (1) Explain GSM Protocol Stack.
  - (2) Explain GSM System Architecture.
  - (3) Explain GPRS Architecture Reference Model
  - (4) Explain GSM Localization and Calling with MTC and MOC.

- (B) Attempt the following : **5**
- (1) Explain the term “Beacon”.
  - (2) Give full form and use of WEP.
  - (3) Explain MSSIDN.
  - (4) Explain TMSI.
  - (5) What is Burst ?
3. Attempt the following (any 4) : **20**
- (1) Explain IEEE 802.11 Protocol Architecture.
  - (2) Explain IEEE 802.11 WLAN Physical Layer with FHSS and DSSS PHY Frame Format.
  - (3) Explain IEEE 802.11 MAC Packet Structure.
  - (4) Explain Power Management of IEEE 802.11 WLAN Mac Layer with figure.
  - (5) Explain Bluetooth Protocol Stack.
4. Attempt the following (any 4) : **20**
- (1) Explain Agent Registration with request and reply also draw suitable figure.
  - (2) What is Mobile IP ? Explain requirements, purpose of Mobile IP.
  - (3) What is Encapsulation and Tunneling ? Explain GRE Encapsulation.
  - (4) Explain DHCP.
  - (5) Explain Mobile TCP with its merits and demerits.
5. Attempt the following (any 4) : **20**
- (1) Compare between snooping TCP, indirect TCP and transaction oriented TCP.
  - (2) Explain Wireless Session Protocol in detail.
  - (3) Explain Wireless Transaction Layer Security in detail.
  - (4) Explain WML & WML Script with capabilities.
  - (5) Explain Wireless Transaction Protocol with WTP Class 0, WTP Class 1 and WTP Class 2.