

b-

BE (IT) Sem VII

21/5/09

VT-April-09- 254

M.C

11 am to 2 pm  
VR-4836

Con. 2780-09.

( 3 Hours )

[ Total Marks : 100

- N.B. :** (1) Question No.1 is **compulsory**.  
 (2) Attempt any **four** questions from remaining **six** questions.  
 (3) **Figures** to the **right** indicate **full** marks.  
 (4) Draw **neat diagram** wherever **necessary**.  
 (5) **All** questions carry **equal** marks.

1. (a) Draw the block diagram of FHSS transmitter and receiver. Differentiate 10  
 between slow hopping and fast hopping.
- (b) Write short notes on :- 10
  - (i) Near and far terminals
  - (ii) Hidden and Exposed terminals.
2. (a) Discuss MAC protocol for IEEE 802.11. 10
- (b) Compare Iridium, Globalstar, ICO and Teledesic. 10
3. (a) Explain Bluetooth protocol stack with neat diagram. 10
- (b) Explain system architecture of a GSM system. 10
4. (a) What do you understand by QoS in mobile network ? Explain the parameter 10  
 which determines QoS ?
- (b) Explain DECT system architecture reference model and protocol architecture. 10
5. (a) What advantages does the use of IPV6 offer for mobility ? What are the 10  
 entities of mobile IP now ?
- (b) Explain what is meant by tunneling and Encapsulation. How it works in 10  
 IP-in-IP, minimal, and generic routing encapsulation ? Show schematic.
6. (a) Write in detail about indirect TCP (I-TCP) including its merits and demerits 10  
 over snooping TCP and mobile TCP.
- (b) Explain power management in IEEE 802.11 infrastructure networks and 10  
 ad-hoc networks.
7. Write short notes on any **two** :- 20
  - (a) UMTS basic architecture and frame structure for UMTS FDD mode.
  - (b) WTA logical architecture
  - (c) CDMA.