(3 Hours)   **Marks : 80**

NB : (1) Question No.1 is **compulsory**.

     (2) Attempt any **three** out of remaining **five** questions

     (3) Assume suitable data, if necessary.

Q.1	(a) Explain Bluetooth architecture in detail.	(5)
	(b) Explain VPN and its types with neat diagram.	(5)
	(c) Differentiate between a physical channel and a logical channel.	(5)
	(d) Can CSMA/CD be used in cellular wireless networks? If not, why.	(5)
Q.2	(a) Explain WLL and its various types with neat diagram.	(10)
	(b) Explain the design issues of VANET and justify the importance. Differentiate between MANET and VANET.	(10)
Q.3	(a) Explain Cisco Unified Wireless Network Architecture.	(10)
	(b) Explain advantages and disadvantages of Wireless networks. Differentiate between DSSS and FHSS.	(10)
Q.4	(a) Discuss different Wireless Network Design Considerations.	(10)
	(b) Explain TDMA, FDMA, CDMA with suitable diagrams.	(10)
Q.5	(a) Explain WEP and Mobile IP in detail.	(10)
	(b) Explain Wireless sensor networks with its various challenges.	(10)

Q.6   Write in detail on any **four** of the following   (20)
       (a) Zigbee architecture
       (b) PGP
       (c) 1G, 2G, 3G
       (d) UMTS architecture
       (e) Mi-Fi and Ly-Fi
       (f) Handoff Strategies

****