1. Answer question 1 and any FOUR from questions 2 to 7.
2. Parts of the same question should be answered together and in the same sequence.

1. a) Write any four key characteristics of Symbian OS?
b) Compare FDMA with TDMA.
c) Explain the frame structure of GSM.
d) Draw a diagram depicting a WLAN. Explain the functions of its components.
e) What are the differences between Circuit Switched and Packet Switched data services on Cellular networks?
f) What are the differences between W-CDMA and CDMA2000 standards?
g) What are the differences between WLL and Bluetooth? (7x4)

2. a) Show that the frequency reuse factor for a cellular system is given by k/s where ‘k’ is the average number of channels per cell and ‘s’ is the total number of channels available to the cellular service provider.
b) Explain the free space propagation model. Also, explain the advantages and disadvantages of the two-ray ground reflection model in the analysis of path loss. (9+9)

3. a) What hand off techniques are used by GSM and CDMA? How do they affect the services offered by respective operators?
b) Explain the forward link structure in IS-95 standard. (10+8)

4. a) Explain the Direct Sequence and Frequency Hopping Spread Spectrum Technologies. What are the differences between them?
b) How does Adhoc WLAN differ from Infrastructure LAN? (10+8)

5. a) Explain CT2 standard for Cordless Telephones.
b) Explain the architecture of DECT with a diagram. (8+10)

6. a) What are the development tools supported by J2ME?
b) Compare Palm OS with Symbian OS.
c) Explain the architecture of WLL with the help of a diagram. (6+6+6)

7. a) Explain the WiMax network architecture with the help of a diagram.
b) Explain the security related aspects of SMS. (10+8)