

BE11-R4 : WIRELESS & MOBILE COMMUNICATION

NOTE :

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.

Time: 3 Hours

Total Marks: 100

1.
 - (a) Give the comparison between 3G and 4G.
 - (b) Write a short note on Shadowing and Reflection in wireless environment.
 - (c) Which are the main parts of 802.1x Authentication ? Explain them with appropriate diagram.
 - (d) What are the Goals of GPRS ?
 - (e) What is Multi-path propagation ? Explain it in detail.
 - (f) Explain Scattering and diffraction of waves in detail.
 - (g) What are the advantages and disadvantages of WLAN ? Under what situation is a WLAN desirable over Wired LAN ? **(7×4)**

2.
 - (a) Describe GSM architecture along with different entities in it.
 - (b) Differentiate between wireless and wired LAN. **(10+8)**

3.
 - (a) Explain Authentication and Encryption in GSM.
 - (b) Draw and explain IS-95 architecture model. **(9+9)**

4.
 - (a) Explain Core Protocols in Bluetooth Protocol Stack.
 - (b) Explain the difference between soft hand off and hard hand off.
 - (c) List the fundamental goals of security in any information system. Explain WEP (Wired Equivalent Privacy). **(6+4+8)**

5.
 - (a) Draw and explain GPRS Protocol Stack.
 - (b) Explain the salient features of Android.
 - (c) Draw and explain Intra-MSC handover in GSM. **(6+6+6)**

6.
 - (a) What is personal area network ? What are its applications ?
 - (b) What is CS (Carrier Sense) ? What is CSMA ? Write down steps for CSMA/CA.
 - (c) How the applications for mobile devices can be developed using Nokia Tool Kit. **(5+6+7)**

7. Write short note on followings :
 - (a) Differentiate adhoc mode and infrastructure mode in WLAN.
 - (b) What are the identifiers available in GSM ? Explain them in detail.
 - (c) What are the goals of GPRS ? **(6+6+6)**