

(Time: 3 Hours)**Total Marks: 80**

- N.B. :**
- 1) Question No.1 is **compulsory**.
 - 2) Attempt any **three** from the remaining **five** questions.
 - 3) Figures to the right indicate full marks

1. (a) Explain the process of call set up and mobile number portability in GSM. What are the various roaming scenarios in GSM? (10)
 - (b) Explain the Mobile IP configuration and describe how data transfer from mobile node to fixed node and vice versa with short description about i) Foreign agent ii) Home agent iii) Care of Address iv) Mobile Node. (10)
 2. (a) Explain in detail Spread Spectrum Technique and its uses. What is Direct Sequence Spread Spectrum Technique? (10)
 - (b) Explain the Indirect TCP and Snooping TCP with their advantages and disadvantages. (10)
 3. (a) Discuss the WAP protocol architecture in detail. Explain its bearer services. (10)
 - (b) Explain the various operational steps in Cellular System for call establishment between mobile users. Differentiate Soft Handoff and Hard Handoff. (10)
 4. (a) Discuss various impairments in wireless communication. Define Fading and its types in detail. (10)
 - (b) What is WiMAX? Explain IEEE 802.16 protocol architecture and its services in detail. (10)
 5. (a) Explain the architecture and components of GPRS. (10)
 - (b) Explain the concept behind Dynamic Host Configuration Protocol. How Dynamic Source Routing (DSR) different from Destination Sequenced Distance Vector (DSDV) in MANET. (10)
 6. (a) Write short notes any **two** of the following (10)
 - (i) LTE
 - (ii) W-CDMA
 - (iii) WML and WML Script.
 - (b) Explain Bluetooth protocol architecture with diagram and its devices various transition states. (10)
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