

Q.P. Code: 50013

(Time: $2\frac{1}{2}$ hours)

[Total Marks: 60]

- N. B.: (1) All questions are **compulsory**.
(2) Make suitable assumptions wherever necessary and state the assumptions made.
(3) Answers to the same question must be written together.
(4) Numbers to the right indicate marks.
(5) Draw neat labeled diagrams wherever necessary.
(6) Use of Non-programmable calculators is allowed.

1. Attempt any two of the following: 12
 - a. Discuss various types of Antennas used for signal transmission.
 - b. Explain frequency hopping spread spectrum (FHSS) techniques with suitable diagram.
 - c. Explain Packet reservation techniques PRMA in detail.
 - d. Discuss different advantages and limitation of cellular system.
2. Attempt any two of the following: 12
 - a. Discuss various security services define in GSM system.
 - b. Explain the functional architecture of GPRS system.
 - c. Differentiate among GEO, LEO, and MEO.
 - d. Explain DECT basic Architecture.
3. Attempt any two of the following: 12
 - a. Discuss the specification and structure of Multimedia object transfer protocol.
 - b. List the advantages and disadvantages of infrared and radio transmission.
 - c. Discuss various features of HiperLAN2 standard.
 - d. Discuss different features of Bluetooth in detail and compare it with IEEE802.11.
4. Attempt any two of the following: 12
 - a. Discuss basic reference architecture of WATM. Discuss its services.
 - b. Explain Handover reference model of BRAN.
 - c. Discuss the process of IP packet delivery over mobile network.
 - d. Discuss about Dynamic host configuration protocol (DHCP) in detail.
5. Attempt any two of the following: 12
 - a. Discuss various advantages and limitation of Mobile TCP.
 - b. Compare between I-TCP and Snooping TCP in detail.
 - c. What are the primary goals of the WAP forum efforts and how are they reflected in the initial WAP protocol architecture?
 - d. What are the Mobile Agents? Explain in detail.