

Q.P. Code : 75771

(2½ 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. What are the main problems of signal propagation? Why do radio waves not always follow straight line? Why is reflection both useful and harmful?
b. Explain Demand Assigned Multiple Access (DAMA) with suitable example.
c. How can MACA still fail in case of hidden/exposed terminals?
d. Explain ASK, FSK and PSK.
2. **Attempt any two of the following:** 12
a. With suitable diagram explain the protocol architecture of GSM.
b. Write the basic reasons for handover of cellular system.
Write four possible scenarios in GSM.
c. Explain the system architecture of Digital Enhanced Cordless Telecommunication (DECT).
d. Explain the two UTRA modes.
3. **Attempt any two of the following:** 12
a. Name the basic application for satellite communication and describe the trends.
b. List and explain different types of satellite orbits.
c. What is the need of Multimedia Object Transfer (MOT) protocol? Explain MOT object structure.
d. Explain the digital video broadcasting .
4. **Attempt any two of the following:** 12
a. Write the advantages and disadvantages of Infra red and radion transmission.
b. What is the motivation for WATM?
c. List entities used in mobile communication. Explain in short.
d. Explain dynamic source routing with suitable example.
5. **Attempt any two of the following:** 12
a. Write the advantages and disadvantages of I-TCP.
b. Explain the working of mobile TCP.
c. With neat diagram explain the WAP architecture.
d. Explain the working of Wireless session protocol.

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