Roll No. ⬚⬚⬚⬚⬚⬚⬚⬚⬚⬚⬚⬚⬚   **Total No. of Pages : 01**

Total No. of Questions : 08

M.Tech.(ECE)   (Sem.–1)
ADVANCE COMMUNICATION SYSTEM
Subject Code : EC-504
Paper ID : [E0564]

Time : 3 Hrs.   **Max. Marks : 100**

INSTRUCTION TO CANDIDATES :
1. **Attempt any FIVE questions out of EIGHT questions.**
2. **Each question carries TWENTY marks.**

Q1 a. Why digital communication systems are preferred over analog communication systems?

b. Explain GSM for mobile communications.

Q2 a. Explain the various switching techniques in detail.

b. Explain the uplink and downlink of satellite communication system.

Q3 a. Derive the expression for signal to noise ratio in PCM system.

b. Compare the features of FDMA, CDMA and TDMA

Q4 a. Compare the major features of PCM, DPCM, DM systems.

b. State and prove sampling theorem for baseband signal.

Q5 a. Discuss the architecture of optical transport network.

b. Discuss significant features of link management protocols.

Q6 a. Explain the transmission impairments in digital communication system.

b. What are the advantages of IPv6 over IPv4? Explain IPv6 address format in detail.

Q7 a. What are the advantages of using CDMA for a cellular network?

b. Explain SDH with its frame format.

Q8 Write short notes on following :

a. VSAT

b. GPRS

c. Fading

d. SONET