Roll No. | | | | | | | | | | | | | Total No. of Pages : 02

Total No. of Questions : 09

B.Tech.(EE) (2011 Onwards E-II)

B.Tech.(Electrical & Electronics) (2011 & 2012 Batch E-II)

(Sem.–7,8)

NETWORKS AND DATA COMMUNICATION

Subject Code : BTEE-804E

Paper ID : [A3039]

Time : 3 Hrs. Max. Marks : 60

INSTRUCTION TO CANDIDATES :

1. **SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.**
2. **SECTION-B contains FIVE questions carrying FIVE marks each and students has to attempt any FOUR questions.**
3. **SECTION-C contains THREE questions carrying TEN marks each and students has to attempt any TWO questions.**

SECTION-A

Q1. Answer briefly :

a) What is switching? Discuss its types.

b) Differentiate between infrared and light wave.

c) Give limitations of parity checking.

d) What is multiplexing? Name its types.

e) Compare EIA-449 & EIA-530 structures.

f) What are the types of errors?

g) What is the meaning of open system in the OSI model?

h) What is the need of encoding?

i) What are virtual circuits?

j) Explain the concept of DSL.

SECTION-B

Q2. Define switching. Compare circuit switching, message switching & packet switching.

Q3. Explain the difference between Analog and Digital Communication by giving suitable examples showing in which conditions Analog is better and in which condition Digital is better.

Q4. Explain the longitudinal and vertical redundancy checking techniques in detail with illustrative examples.

Q5. What is spread spectrum? What are its advantages? Explain briefly the various spread spectrum schemes.

Q6. Explain the X.21 communication standard in detail.

SECTION-C

Q7. What do you mean by transmission medium? Explain in detail the construction, characteristics and applications of various guided media.

Q8. Explain in detail TCP/IP reference model. Write its advantages and disadvantages also.

Q9. Explain in detail various error detection and correction techniques.