

Total No. of Questions : 4]

SEAT No. :

PE-558

[Total No. of Pages : 2

[6578]-31

S.E. (Information Technology) (Insem.)

BASICS OF COMPUTER NETWORK

(2019 Pattern) (Semester - III) (214445)

Time : 1 Hour]

[Max. Marks : 30

Instructions to the candidates:

- 1) *Attempt Q1 or Q2 & Q3 or Q4*
- 2) *Neat diagrams must be drawn wherever necessary.*
- 3) *Figures to the right indicate full marks.*
- 4) *Assume suitable data, if necessary.*

- Q1)** a) Draw & Explain the Components of Communication System. [5]
- b) Explain the four levels of addressing scheme in TCP/IP. [5]
- c) Compare OSI & TCP/IP Model. [5]

OR

- Q2)** a) Explain the following layers in TCP/IP Model. [5]
- i) Internet Layer
 - ii) Transport Layer
- b) List & Discuss the Data Link Layer (DLL) functionality. [5]
- c) State & Explain Shannon - Hartley theorem. [5]

P.T.O.

- Q3)** a) Define Error & Explain Different types of error during transmission. [5]
- b) Explain Checksum error detection technique with example. [5]
- c) Calculate the CRC if the data to be sent is 100100. The generator polynomial is $G(x) = x^3 + x^2 + 1$. [5]

OR

- Q4)** a) Define & Explain types of framing in Data Link Layer. [5]
- b) Explain stop-and-wait protocol. [5]
- c) Explain the terms [5]
- i) Piggybacking
 - ii) Parity check

