Total No. of Questions—**8**] [Total No. of Printed Pages—**2**

Seat No.	

[4957]-1089

S.E. (I.T.) (Second Semester) EXAMINATION, 2016

FOUNDATION OF COMPUTER NETWORKS

(2012 PATTERN)

Time : Two Hours **Maximum Marks : 50**

N.B. :— (*i*) Answer *four* questions.

(*ii*) Figures to the right indicate full marks.

(*iii*) Assume suitable data, if necessary.

1. (*a*) Explain FDM and TDM multiplication techniques. [6]

(*b*) Calculate the bandwidth of noiseless channel having maximum bit rate of 24 Kbps and 8 signal levels. [7]

Or

2. (*a*) Explain in brief Nyquist theorem for noiseless channel. Consider a noiseless channel with a bandwidth of 3000 Hz transmitting a signal with *two* signal levels. Calculate the maximum bit rate. [7]

(*b*) Explain pulse code modulation with suitable diagram. [6]

P.T.O.

3. (*a*) Elaborate the types coaxial cable. [6]

(*b*) What are the functions of transport layer ? [6]

Or

4. (*a*) Explain the propagation modes of optical fibre cable. [6]

(*b*) Write a short note on backbone network. [6]

5. (*a*) What is hamming code ? Generate code words using hamming code for following data words [7]

1011, 0101

(*b*) Explain selective repeat ARQ for noiseless channels. [6]

Or

6. (*a*) Write a short note on character oriented framing methods. [6]

(*b*) Explain *two* dimensional parity check. [7]

7. (*a*) Write a short note on CSMA/CD. [6]

(*b*) Explain types of standard Ethernet and Gigabit Ethernet. [6]

Or

8. (*a*) Compare FDMA, CDMA, TDMA. [6]

(*b*) Explain the frame format for IEEE 802.3. [6]