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Total number of printed pages – 2

B. Tech
BCSE 3306 (Old)

Sixth Semester (Back) Examination – 2013

COMPUTER NETWORK

BRANCH : CSE, IT

QUESTION CODE : B340

Full Marks – 70

Time : 3 Hours

Answer Question No. 1 which is compulsory and any **five** from the rest.
The figures in the right-hand margin indicate marks.

1. Answer the following questions : 2×10
- (a) Why are protocols needed ?
 - (b) What are the responsibilities of the transport layer in the Internet model ?
 - (c) What is peer-to-peer process ?
 - (d) What is Baseband transmission ?
 - (e) Define the term “Latency”.
 - (f) What is Data rate ?
 - (g) Define piggybacking.
 - (h) What is the purpose of cladding in an optical fiber ?
 - (i) Define blocking in a switched network.
 - (j) What is single-bit error ?
2. (a) How are OSI and ISO related to each other ? 5
- (b) What does the Nyquist theorem have to do with communications ? 5



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3. (a) What is the difference between Parallel and serial transmission ? 5
(b) Define and discuss the role of Carrier signal in analog transmission. 5
4. (a) Describe the goal of multiplexing. 5
(b) What is the difference between omnidirectional waves and unidirectional waves ? 5
5. (a) What is the role of the address field in a packet traveling through a virtual-circuit network ? 5
(b) How is the simple parity check related to the two-dimensional parity check ? 5
6. (a) Compare and contrast the Go-Back-NARQ Protocol with Selective-Repeat ARQ. 5
(b) Why collision is an issue in a random access protocol but not in controlled access or channelizing protocols ? Explain. 5
7. (a) How does the Ethernet address IA:2B:3CAD:5E:6F appear on the line in binary ? 5
(b) Discuss the different types of mobility in a wireless LAN. 5
8. (a) Compare and contrast the fields in the main headers of IPv4 and IPv6. 5
(b) What is a proxy server and how is it related to HTTP ? Explain 5

