

SEAT NO :-----

GANPAT UNIVERSITY

M. Tech. Semester II (Electronics & Communication Engg.)  
Regular Examination, MAY-JUNE 2014

DATA COMMUNICATIONS AND NETWORKS (3EC 203)

Max. Time: 3Hrs.]

[Max. Marks:70

Instructions:

1. Attempt all questions.
2. Answers to the two sections must be written in separate answer books.
3. Figures to the right indicate full marks.
4. Assume suitable data, if necessary.

SECTION I

- 1 (A) Differentiate RGB and YCM method to represent the image and explain jitter and timeliness in context of data communication. (6)  
(B) Compare datalink layer with presentation layer. (6)  
OR
- 1 (A) Compare UTP with STP. What is the use of twist in twisted pair cable? Explain it. (6)  
(B) Why switching is used? Explain virtual circuit network is cross between circuit switched network and data gram network. (6)
- 2 (A) Write short note on framing in context of data link control. (6)  
(B) Explain Go Back N Automatic Repeat Request concept as far as data link control is concern. (5)  
OR
- 2 (A) Why energy level during collision is not help full for collision detection in wireless communication? (6)  
(B) Explain CSMA as far as multiple access is concern. (5)
- 3 (A) Differentiate between 800 services and hot line. (4)  
(B) Why bandwidth for data is less than voice in dial up modems. (4)  
(C) What is importance of signaling? What is out- band signaling. (4)

**Section: II**

Q.4 (A) Explain in complete detail how to increase the bandwidth of standard Ethernet. (6)

(B) Give briefing on address space and notations of IPv4 addresses. (6)

**OR**

Q.4 (A) Give challenges faced by designer of ATM and explain any two of them. (6)

(B) Write short note on LAN emulation (LANE). (6)

Q.5 (A) Explain SONET layers compare to OSI and Internet layers. (6)

(B) What is byte interleaving in SONET/SDH concept? Explain it in complete detail. (5)

**OR**

Q.5 (A) Draw ISM band ? what is FHSS and DSSS? Explain it. (6)

(B) Explain Bluetooth and its architecture. (5)

Q.6 (A) Explain loop problem in learning bridge? How we can overcome it? (6)

(B) What characteristics can be used to group stations in VLAN ? (6)

**END OF PAPER**