



(Pages : 2)

A – 3870

Reg. No. :

Name :

**Seventh Semester B.Tech. Degree Examination, June 2016
(2008 Scheme)**

08.703 : COMPUTER NETWORKS (R)

Time : 3 Hours

Max. Marks : 100

PART – A

Answer **all** the questions.

(10×4=40 Marks)

1. How is the communication between layer n and layer n + 1 done in protocol hierarchy ?
2. Compare OSI and TCP/IP reference model.
3. What is polynomial code ?
4. What is dynamic channel allocation ?
5. Discuss DQDB.
6. Why does leaky bucket algorithm allow only one packet per tick independent of how large the packet is ?
7. What is CIDR ?
8. Discuss the limitations of IPv4.
9. Draw the diagram of TCP header format and explain each field.
10. What is the use of Reverse Name Resolution ?

PART – B

Answer **one** question from **each** Module.

(3×20=60 Marks)

Module – I

11. a) Explain with a neat diagram Go Back-n sliding window protocol. **12**
- b) What is framing ? Explain the various methods for framing. **8**

OR

12. a) Explain HDLC. **10**
- b) Describe in detail the services of each layer of the OSI reference model. **10**

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Module - II

13. a) Explain the IEEE 802.5. 10
 b) What is meant by Quality of Service ? Explain how various QOS parameters are implemented. 10

OR

14. a) Explain traffic shaping algorithms for congestion control. 10
 b) What are the major drawbacks of distance vector routing ? How are they solved ? 10

Module - III

15. a) Explain Domain Name System. 10
 b) Explain BGP. What is the role of the MARKER field and KEEPALIVE message in BGP ? 10

OR

16. a) Explain how subnetting and supernetting are done. 7
 b) Find the sub-network address for the following 3

Sl. No.	IP Address	Mask
1	141.181.14.16	255.255.224.0
2	20.34.22.156	255.255.255.240
3	125.35.12.57	255.255.0.0

- c) i) Describe Dijkstra's algorithm. 6
 ii) Find the shortest path between node A and node H for the following figure by applying Dijkstra's algorithm. Show each step output. 4

