

SIXTH SEMESTER B.Sc. DEGREE EXAMINATION, MARCH/APRIL 2015

(UG-CCSS)

Core Course

Computer Science

CS 6B 17—COMPUTER NETWORKS

(2012 Admissions)

Time : Three Hours

Maximum : 30 Weightage

I. Answer *all* questions :

- 1 Which layer of the OSI reference model is known as network dialog controller ?
- 2 In SONET network _____ multiplexing is used to multiplex and demultiplex multiple optical fiber channels.
- 3 A Bluetooth device has _____ layer which is equivalent to the physical layer of the internet model.
- 4 MIME stands for _____.
- 5 Identify the class of the address 14.23.120.8 ?
- 6 The packets in IPV4 layer is called _____.
- 7 UDP port 111 is reserved for _____ protocol.
- 8 The _____ algorithm shapes bursty traffic into fixed rate traffic by averaging the data rate.
- 9 The _____ between two words of the same size is the number of differences between the corresponding bits.
- 10 Which protocol is responsible for pushing messages in an E-Mail system from the client to the server ?
- 11 The art of transforming messages to make them secure and immune to attacks is called _____.
- 12 In a Bluetooth system an interconnected collection of piconets is called _____.

(12 × ¼ = 3 weightage)

I. Answer *all* questions :

- 13 What is mesh topology ?
- 14 What is meant by polling ?

Turn over

- 15 What is meant by data link control ?
- 16 What is the functionality of repeaters ?
- 17 What are the different categories of ICMP messages ?
- 18 What is DNS ?
- 19 What are the different types of user agents available in the E-Mail system ?
- 20 What is the functionality of network interface card ?
- 21 What is Samba server ?

(9 × 1 = 9 weightage)

III. Answer any *five* questions :

- 22 What is the difference between serial and parallel transmission ?
- 23 Explain the various categories of networks.
- 24 Distinguish between Pure Aloha and Slotted Aloha protocols.
- 25 Explain Distance Vector Routing.
- 26 Explain the Bluetooth architecture.
- 27 Explain the Diffie Hellman algorithm for asymmetric key cryptography.
- 28 Distinguish between SMTP and POP protocols.

(5 × 2 = 10 weightage)

IV. Answer any *two* questions :

- 29 Explain the functions of various layers in the OSI reference model.
- 30 What is congestion control in transport layer ? Explain the various categories of Congestion control mechanisms.
- 31 Explain the various multiplexing techniques.

(2 × 4 = 8 weightage)