

SIXTH SEMESTER B.Sc. DEGREE EXAMINATION, MARCH/APRIL 2016

(UG—CCSS)

Computer Science—Core Course

CS 6B 17—COMPUTER NETWORKS

(2012 Admission onwards)

Time : Three Hours

Maximum : 30 Weightage

I. Answer all questions :

- 1 Which layer of the OSI model is responsible for the node to node movement of frames ?
- 2 A _____ is a data communication system within a building plant or campus or between nearby buildings.
- 3 RJ45 is an example of _____ connector.
- 4 The access method used in the Distributed Coordination function of MAC sub layer of IEEE 802.11 is called _____.
- 5 The _____ is the connectionless unreliable protocol in the transport layer.
- 6 TCP Port number 80 is reserved for _____ protocol.
- 7 _____ is the variation in delay for packets belonging to the same flow.
- 8 DHCP stands for _____.
- 9 In linear block codes the _____ of any two valid code words create another valid code word.
- 10 The packet sent by a node to the source to inform it about the congestion is called _____.
- 11 TELNET uses _____ system to encode characters on the local system.
- 12 A combination of encryption and decryption algorithms in cryptography is called _____.

(12 × ¼ = 3 weightage)

II. Answer all questions :

- 13 What is the significance of the twisting in twisted-pair cable ?
- 14 What is pure Aloha protocol ?
- 15 Distinguish between a gateway and a router.
- 16 How errors are detected by using block coding ?

Turn over

- 17 Distinguish between Manchester and differential Manchester encoding.
- 18 What are the services provided by a user agent in an E-Mail system ?
- 19 What is the difference between local and remote log-in in TELNET ?
- 20 What is the functionality of Post Office Protocol ?
- 21 What is NIC ?

(9 × 1 = 9 weightage)

Answer any *five* questions :

- 22 What is topology ? Explain the various types of topologies in networks.
- 23 Explain the various protocols in network layer that can be used to map physical address to logical address.
- 24 What is meant by cyclic code ? Explain. How CRC can be used for error detection and error correction.
- 25 Explain the architecture of www.
- 26 What are the various functions of a network management system ?
- 27 Explain the RSA algorithm for asymmetric key cryptography.
- 28 Distinguish between TFTP and FTP.

(5 × 2 = 10 weightage)

Answer any *two* questions :

- 29 Explain the various multiplexing techniques in detail.
- 30 Explain the various techniques to improve Quality of service in Transport layer.
- 31 Explain the various switchings techniques.

(2 × 4 = 8 weightage)