C 30905

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Name...

Reg. No....................................

FIFTH SEMESTER B.C.A. DEGREE (SUPPLEMENTARY) EXAMINATION NOVEMBER 2017

(UG—CCSS)

CA 5B 09—COMPUTER NETWORKS

Time : Three Hours

Maximum : 30 Weightage

I. Answer all *twelve* questions :

1 ——— is the packet-switched network funded by ARPA.

2 Number of links to connect n nodes in a mesh topology is ———.

3 ——— is the difference between the highest and the lowest frequencies of a composite signal.

4 Error control is the responsibility of ——— layer.

5 The independent data unit in a packet switched network is called a ———.

6 Token bus was standardized by IEEE standard ———.

7 ——— is abbreviated as LLC.

8 10Base2 implementation of Ethernet is also called as ———.

9 ——— is a packet sent by a router to the source to inform it of congestion.

10 SMTP stands for ———.

11 A device installed between the internal network of an organization and the rest of the Internet to provide security is called ———.

12 ——— is abbreviated as MIME.

(12 × ¼ = 3 weightage)

II. Answer all *nine* questions :

13 Explain Star topology.

14 What is MAN ?

15 List the functions performed by the physical layer of 802.3 standards ?

16 What is FDDI ?

17 What is the use of bridges in networking ?

18 What is UDP ?

19 What is HTTP ?

20 What is public key and private key in network security.

21 What is DES ?

<div align="right">(9 × 1 = 9 weightage)</div>

III. Answer *five* questions from seven :

22 Write a note on session layer of OSI model.

23 Write a note on twisted pair wires.

24 Differentiate between pure-ALOHA and slotted- ALOHA.

25 Explain CSMA/CD protocol in detail.

26 Explain the shortest path routing algorithm.

27 Differentiate between TCP and UDP.

28 Explain the different security services.

<div align="right">(5 × 2 = 10 weightage)</div>

IV. Answer *two* questions from three :

29 Explain the different kinds of switching techniques.

30 Explain in detail IEEE 802.4 and IEEE 802.5.

31 Define cryptography. Explain the various ciphers used in asymmetric key cryptography.

<div align="right">(2 × 4 = 8 weightage)</div>