Register Number.....

M.E. DEGREE EXAMINATIONS: DECEMBER 2009

First Semester

APPLIED ELECTRONICS

COM521: High Performance Communication Networks

Time: Three Hours **Maximum Marks: 100**

Answer ALL Questions:-

PART A (10 x 2 = 20 Marks)

1. What is a peer-peer process?
2. How does CSMA/CD differ from CSMA/CA?
3. What are the functions of physical layer of ISDN?
4. Mention the ISDN channels and its data rate.
5. Define ATM.
6. What are the applications of AAL?
7. Compare and contrast overlay model and peer model in IP forwarding architecture.
8. Mention the components of ELAN.
9. What are the three parameters of HCI -Inquiry command?
10. Mention the types of RFCOMM devices.

PART B (5 x 16 = 80 Marks)

11. (a) (i) A FDDI ring network consists of 4 stations. Calculate arrival time, TRT, THT, synchronous data units, asynchronous data units for all station in first, second and third round of the token. Assume TTRT is 30 units. The time required for the token to go from one station to another is 1 time unit. Each station is allowed to send two synchronous data unit/ turn and has lot of asynchronous data to send. (10)

(ii) Compare three LANS specified by project 802. (6)

(OR)

(b) Explain the layered architecture of OSI model in detail.

12. (a) (i) With a neat diagram explain the ISDN protocol architecture. (8)

(ii) Write short notes about ISDN Teleservices. (8)

(OR)

(b) Describe the SS7 protocol architecture.

13. (a) (i) An application uses AAL3/4 and there are 47,787 bytes of data coming into CS sub layer, how many padding bytes are necessary? How many data units passed from the SAR to the ATM layer? How many cells are produced?

(ii) Discuss the services provided by AAL.

(OR)

(b) Discuss in detail the ATM architecture and its quality of services.

14. (a) (i) Discuss about differentiated services.

(ii) Compare integrated services IP and differentiated services IP in terms of the ability to protect themselves against theft of services.

(OR)

(b) (i) Are MPLS label switching and packet filling at firewalls compatible? Explain.

(ii) Discuss about integrated Services in the internet

15. (a) Explain the L2CAP protocol concepts in Bluetooth host.

(OR)

(b) Discuss briefly about link controller mechanism in Bluetooth.

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