



K17U 1742

Reg. No. :

Name :

V Semester B.C.A. Degree (CBCSS – Reg./Sup./Imp.)
Examination, November 2017
(2014 Admn. Onwards)
CORE COURSE
5B14 BCA : Data Communication and Networks

Time : 3 Hours

Max. Marks : 40

SECTION – A

I. 1) One word answer :

(8×0.5=4)

- a) The data link layer takes the packets from network layer and encapsulates them into _____ for transmission.
- b) CRC stands for _____
- c) In VSAT systems _____ is used to relay traffic between VSATs.
- d) An interconnected collection of piconets are called _____
- e) _____ are specialized forums in which user with a common interest can exchange messages.
- f) _____ layer in OSI model is responsible for the syntax and semantics of the information transmitted.
- g) _____ is the set of techniques that allows the simultaneous transmission of multiple signals across a single data link.
- h) If the physical links are limited to a pair of nodes it is said to be _____

SECTION – B

II. Answer any seven questions :

(7×2=14)

- 2) What are the criteria necessary for an effective and efficient network ?
- 3) What are the key design issues of a computer network ?
- 4) What are the responsibilities of data link layer ?

P.T.O.



- 5) What is Framing ?
- 6) Differentiate gateway and router.
- 7) What do you mean by character stuffing ?
- 8) What do you mean by congestion ?
- 9) Write any four applications of internet.
- 10) What is audio compression ?
- 11) What is Stop-and-Wait Protocol ?

SECTION – C

III. Answer **any four** questions :

(4×3=12)

- 12) What is Error Detection ? What are its methods ?
- 13) Discuss the architecture and services of electronic mail.
- 14) Explain about the network hardware in detail.
- 15) Compare virtual circuits and datagram subnets.
- 16) Explain the different categories of satellites.
- 17) Explain leaky bucket algorithm.

SECTION – D

IV. Answer **any two** questions :

(2×5=10)

- 18) Explain the different transmission mediums used in networks.
 - 19) Discuss open loop and closed loop congestion control.
 - 20) Explain the various random access protocols in detail.
 - 21) Explain different types of routing.
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