



M 8129

Reg. No. :

Name :

VI Semester B.Sc. Degree (CCSS-Reg./Supple./Improv.)
Examination, May 2015
CORE COURSE IN COMPUTER SCIENCE
6B14 CSC : Data Communication and Computer Network

Time: 3 Hours

Max. Weightage : 21

SECTION – A

Answer **all** questions. Weightage for a bunch of **four** questions is **1**.

1. What device separates a single network in to two segments ?
 - a) Router
 - b) Bridge
 - c) Gateway
 - d) Hub
2. Which transmission media has the highest transmission speed in a network ?
 - a) Coaxial cable
 - b) Twisted pair cable
 - c) Optical fiber
 - d) Electrical cable
3. FDM is commonly used on what type of broadcasts ?
 - a) FM radio
 - b) Satellite
 - c) AM radio
 - d) Bursty
4. The Hamming distance between 001111 and 010011 is
 - a) 2
 - b) 3
 - c) 4
 - d) 1
5. Error detection and recovery takes place at which layer ?
 - a) Presentation
 - b) Network
 - c) Transport
 - d) Application

P.T.O.



6. In cyclic redundancy checking CRC is the
- Divisor
 - Quotient
 - Dividend
 - Remainder
7. The _____ topology requires a central controller or hub.
8. The plain text after encryption is called _____ (2x1=2)

SECTION – B

Answer any five questions. Weightage 1 for each.

- Define star topology. Write down its advantages.
- What is a firewall ?
- What is piggy backing ?
- What is the need of multiplexing in transport layer ?
- What do you mean by three way hand shaking ?
- Write a short note on Data link layer design issues.
- What is Bit stuffing ?
- Discuss about flow control. (5x1=5)

SECTION – C

Answer any five questions. Weightage 2 for each.

- Explain network topologies with structures.
- Discuss about unguided transmission media.
- Explain cyclic redundancy check with suitable example.



- 20. Explain sliding window protocol.
- 21. What are the functions of Transport Layer ?
- 22. Explain shortest path routing algorithm with a suitable illustration.
- 23. Differentiate between TCP and UDP.
- 24. Discuss about traditional cryptographic methods. (5×2=10)

SECTION – D

Answer **any one** questions. Weightage **4** for **each**.

- 25. Explain in detail ISO-OSI model.
- 26. What do you mean by congestion control ?
 - 1. Explain about :
 - a) Leaky Bucket Algorithm
 - b) Token Bucket Algorithm.
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