

BCA-503(N)

B. C. A. (Fifth Semester) EXAMINATION, Dec., 2014

(New Course)

Paper Third

COMPUTER NETWORK

Time : Three Hours]

[Maximum Marks : 75

Note : Section A is compulsory. Attempt any *seven* questions from Section B and *one* question from Section C.

Section—A

Note : Attempt all questions.

1. (a) How does data represent in data communication ?
Explain each data representation in brief. 4
- (b) Explain the name of standard organization. What they do in the area of data communication : 4
 - (i) ITU-T
 - (ii) CCITT
 - (iii) EIA
 - (iv) FCC

Section—B

Note : Attempt any *seven* questions.

2. Explain the functions of each layer. 8
 - (i) Data link layer

- (ii) Transport layer
 (iii) Presentation layer
 (iv) Session layer
3. Illustrate and explain the following media used in Computer Networks : 8
- (i) UTP cable
 (ii) Co-axial cable
 (iii) Optical fiber
 (iv) Wireless media
4. Explain each *one* of the following in detail : 8
- (i) FDM
 (ii) TDM
 (iii) WDM
5. Write *one* of the following and also explain advantage and disadvantage each one of the : 8
- (i) Circuit switching
 (ii) Message switching
6. Write the data link protocol and differentiate with the transport layer protocol : 8
- (i) Flow control
 (ii) Error control
 (iii) Access control
7. Write and explain protocol differentiate *one* of each other : 8
- (i) CSMA/CD
 (ii) CSMA/CA

8. What is ISDN and how it differ from B-ISDN ? Explain in detail. 8
9. Explain the functions and draw the working producer at the level of the network layer : 8
- (i) HUB
 (ii) Switch
 (iii) Bridge
10. Write and explain with the help of example in the transport layers of error control : 8
- (i) WRC
 (ii) VRC
 (iii) CRC

Section—C

- Note : Attempt any *one* question.
11. Write short notes in terms of Routing Algorithm : 11
- (i) RIP
 (ii) BGP
12. Write short notes in the term of presentation layer : 11
- (i) Encryption
 (ii) Compression