

**97679**

**B.C.A. 5th Semester (New)  
Examination- November, 2016  
Data Communication and Networking  
Paper-BCA-303**

**Time : 3 hours**

**Max. Marks : 80**

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Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard will be entertained after the examination.

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**Note :** Attempt five questions in all, selecting one question from each unit. Q.No. 1 is compulsory. All questions carry equal marks.

1. (a) What is web based model?
- (b) What is frame relay ?
- (c) What is multiplexing ?
- (d) What is the difference between asynchronous and synchronous transmission?
- (e) What is wireless LAN ?
- (f) What is Token Ring ?
- (g) What is datagram?

## Unit-I

2. What do you mean by ISO-OSI reference model ? Explain functions, services and protocol of each layer.
3. (a) Define computer network ? What is network topology ? Explain it with their advantages and disadvantages.
- (b) Explain :
- (i) Distributed system
  - (ii) Peer-to-peer model.

## Unit-II

4. (a) What is switching ? What are different types of switching mechanisms ? Explain. <http://www.haryanapapers.com>
- (b) Explain Bid Rate, Baud Rate, Bandwidth and Channel.
5. Explain :
- (a) Modulation techniques
  - (b) Transmission Media

## Unit-III

6. (a) Explain different types of error

(b) Explain:

(i) VLAN

(ii) FDDI.

7. Describe various network hardware components.

### Unit-IV

8. What do you mean by routing ? Explain shortest path routing and distance vector routing algorithm.

9. (a) What do you mean by congestion? How do we control the congestion ? Explain.

(b) What do you mean by cryptography? Describe encryption method.

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