



RAN - 1911040102050001

**RAN-1911040102050001****MCA Semester II Examination****March / April - 2019****Paper 205 : Computer Networks****(Old & New)****Time: 3 Hours ]****[ Total Marks: 70****સૂચના : / Instructions**

નીચે દર્શાવેલ નિશાનીવાળી વિગતો ઉત્તરવહી પર અવશ્ય લખવી.  
**Fill up strictly the details of signs on your answer book**

Name of the Examination:

☛ **MCA Semester II**

Name of the Subject :

☛ **Paper 205 : Computer Networks (Old & New)**Subject Code No.: **1911040102050001**

Seat No.:

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Student's Signature

**Q.1. Do as Directed [14]**

- (A) Write a brief note on various types of network media, along with their advantages and limitations. [07]

**OR**

- (A) Briefly list and differentiate between different types of computer networks. [07]
- (B) Briefly explain the OSI reference model and compare it with TCP/IP reference model. [07]

**Q.2. Do as directed: (Any TWO) [14]**

- (A) Discuss various network topologies, their benefits and limitations.
- (B) What is framing? Describe the issues to be resolved under this service offered.
- (C) What is Multiplexing? Explain types of multiplexing.

**Q.3.** Do as directed: [14]  
(A) Explain shortest path routing algorithm. [07]

**OR**

(A) What is routing? Which devices can perform the function of routing?  
Differentiate between Static & Dynamic Routing. [07]

(B) What is congestion? Which are the congestion principles? How is it  
controlled? [07]

**OR**

(B) Write a note on IP addressing (version 4) along with its classes, and also  
explain subnetting. [07]

**Q.4.** Do as directed: (Any TWO) [14]

- (A) Discuss briefly about the services provided at the Transport layer.
- (B) List the application layer services and explain SMTP in detail.
- (C) Explain using examples, Hamming Code distance method.
- (D) List various public key security techniques and explain any one.

**Q.5.** Do as directed: [14]

(A) Answer the following in brief: (Any FIVE) [10]

1. What is the main function of presentation layer?
2. Differentiate between bridge and router.
3. List differences between Digital Signature and Digital Certificate.
4. List various transmission errors.
5. What are the differences between TCP and UDP?
6. Which parameters would a network administrator like to monitor over a network?
7. Which are the various data link layer protocols?

(B) Compare Connection oriented service with Connectionless Service. [04]

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