Printed Pages : 1 **CA-202**

(Following Paper ID and Roll No. to be filled in your Answer Books)										
PAPER ID :	**Roll No.**									

M.C.A.

Theory Examination (Semester-II) 2015-16

COMPUTER NETWORK

Time : 3 Hours ***Max. Marks : 100***

Note: Make suitable assumptions if necessary.

SECTION A

1: Answer all the parts: **(2X10=20)**

a) What do mean by Computer Network? What is the criterion of effective and efficient network?
b) Explain the terms digital data rates and communication links.
c) Differentiate between AM and FM with suitable example.
d) Write a short note on Hamming Code.
e) Explain the following: LAN and MAN.
f) What do you mean by PCM? Explain.
g) What is an IP address? What is it signify?
h) Define HTTP protocol.
i) What do you mean by broadcast? Explain with an example.
j) Explain the terms bandwidth and bit interval.

SECTION B

2: Attempt any five parts of the following: **(5X10=50)**

a) What is the function of a switch? Discuss various type of switches used in computer network?
b) What is error detection and error correction? Explain. Discuss any one method for using the error detection in detail.
c) Write a short note OSI layered architecture with proper diagram.
d) Discuss the delta modulation with suitable diagram. Also discuss its merits and demerits.
e) Describe the packet switching technique with suitable diagram.
f) Write short note on (i) Electronic mail, (ii) File transfer.
g) What do you mean by asynchronous transfer mode (ATM)? Describe the architecture of ATM in detail with suitable diagram.
h) What are the various encoding techniques for digital data? Discuss any one of the technique with example.

SECTION C

Attempt any two questions of this section. **(15X2=30)**

3. What is cryptography? Explain. Differentiate between symmetric key algorithm and public key algorithm. Describe RSA algorithm in detail.
4. What are the various protocols at the IP layer? What are the issues to be addressed at the IP layer? Discuss the TCP/IP protocol in detail.
5. Describe any three of the following with suitable example:
   a) Digital signature.
   b) Router and gateway.
   c) Firewall.
   d) Network topology.
   e) IEEE LAN standard.