Total No. of Questions—4]

[Total No. of Printed Pages—2

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M.C.A. (Commerce Faculty) (Third Semester) EXAMINATION, 2016 AC - 304: NETWORK OPERATIONS

(Credit System)

(2013 **PATTERN**)

Time: Three Hours

Maximum Marks: 50

N.B. :— All questions are compulsory.

1. (a) Solve any three:

 $[3 \times 4 = 12]$

- (i) Explain characteristics of data communication.
- (ii) Distinguish between OSI and TCP/IP model.
- (iii) Write a short note on NRZ-L.
- (iv) Explain the concept of connection oriented services and connectionless services.
- (b) Solve any one:

 $[1\times2=2]$

- (i) Define base band transmission
- (ii) What is ring topology.
- **2.** Solve any three:

 $[3 \times 4 = 12]$

- (i) Explain NRZ-I in detail.
- (ii) Write a note on packet switching.
- (iii) Write a note on multiplexing and demultiplexing.
- (iv) Explain the concept of VLAN.

P.T.O.

3. Solve any three:

 $[3 \times 4 = 12]$

- (i) Write a short note on star topology.
- (ii) Explain the terms: LAN, MAN.
- (iii) Explain logical addressing with IPV6 address structure.
- (iv) Explain twisted pair cable with its types.

4. Solve any three:

 $[3 \times 4 = 12]$

- (i) Explain CSMA/CD and CSMA/CA.
- (ii) Explain various design issues of the layers
- (iii) Write a note on ALOHA.
- (iv) Explain 1-bit sliding window protocol.