Registration No : | | | | | | | | | | |

Total Number of Pages : 02 **M.Sc.I**

FBEF611

6th Semester Regular / Back Examination 2017-18

COMPUTER NETWORK

BRANCH : M.Sc.I(MC)

Time: 3 Hours

Max Marks: 70

Q.CODE : C460

Answer Question No.1 which is compulsory and any five from the rest.

The figures in the right hand margin indicate marks.

Q1 **Answer the following questions :** **(2 x 10)**

a) What are the issues handled in the data link layer of OSI model?

b) If a periodic signal is decomposed into five sine waves with frequencies of 100, 300, 500, 700 and 900 Hz, what is the bandwidth? Draw the spectrum, assuming all components have a maximum amplitude of 10 V.

c) What is Stop-And-Wait ARQ ?.

d) Name three types of transmission impairments.

e) What are different analog-to-analog modulations?

f) What is Time Division Multiplexing? .

g) Find minimum Hamming distance of data set {100101, 100011, 110101}

h) Find the class of each address: 252.5.15.111, 134.11.78.56.

i) Mention three advantages of IPv6 in comparison with IPv4.

j) What are the measure parameters of Quality of Service?

Q2 **a)** Give TCP/IP protocol suite and explain. **(5)**

b) Express a period of 100 ms in microseconds(μs), and express the corresponding frequency in kilohertz. **(5)**

Q3 **a)** What are the different line coding schemes in digital transmission? Mention using figures. **(5)**

b) How does Error checking occur using CRC (Cyclic Redundancy Check)? Explain with an example. **(5)**

Q4 **a)** What is CSMA/CD? **(5)**

b) Give format of IPv6 datagram and explain the importance of each field in base header. **(5)**

Q5 **a)** Give the functionalities of ICMP. **(5)**

b) Differentiate TCP and UDP. **(5)**

Q6 **a)** What is DNS in Internet? **(5)**

b) How does SMTP performs emailing? **(5)**

Q7 **a)** What is congestion control? Differentiate Open-loop congestion control and Close-loop congestion control. **(6)**

b) Explain FTP. **(4)**

Q8 **Write Short notes on :**

a) Virtual Circuit switching **(5)**

b) HTTP **(5)**