(Please write your Exam Roll No.) *Exam Roll No. .....*

END TERM EXAMINATION

FOURTH SEMESTER [BCA] MAY 2018

Paper Code: BCA-210 ***Subject: Computer Network***

Time: 3 Hours ***Maximum Marks: 75***

Note: Attempt five questions in all including Q.no.1 which is compulsory. Select one question from each unit.

Q1 Answer the following: **(2.5x10=25)**

(a) Explain Shannon Capacity Theorem.
(b) What are different components of data communication?
(c) Discuss different types of transmission impairments.
(d) What is Flooding?
(e) Write a short note on DNS.
(f) Define network. Discuss various network criteria.
(g) Explain Piggybacking and its benefits.
(h) What is a datagram?
(i) Discuss Broadband–ISDN.
(j) Write a short note on cable modems.

Unit-I

Q2 (a) Write a short note on guided media. **(8.5)**
(b) Define throughput, bandwidth, response time, and frequency. **(4)**

Q3 (a) Draw a neat diagram of OSI model and explain the functioning of each layer. **(9.5)**
(b) Differentiate between simplex, half duplex and full duplex. **(3)**

Unit-II

Q4 (a) Define ISDN. What are its various services and layers? **(6)**
(b) What is multiplexing? Explain various types of multiplexing. **(6.5)**

Q5 (a) Define Flow Control. Explain any one flow control algorithm. **(6.5)**
(b) Differentiate between circuit, packet and message switching. **(6)**

Unit-III

Q6 (a) What is routing? Explain distance vector routing algorithm with an example. **(6.5)**
(b) Write a short note on following networking devices: **(6)**
(i) repeaters
(ii) bridges
(iii)gateways
(iv)routers

Q7 (a) Explain static and dynamic routing. **(5)**
(b) What is forwarding function? Explain link state routing algorithm with an example. **(7.5)**

Unit-IV

Q8 (a) Explain three-way handshaking connection management in TCP. **(7.5)**
(b) Compare TCP and UDP Protocols. **(5)**

Q9 (a) Explain TCP packet format in detail. **(8.5)**
(b) What are the functions of session and presentation layer? **(4)**

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