END TERM EXAMINATION

THIRD SEMESTER [BCA] JANUARY-FEBRUARY 2023

Paper Code: BCA201	Subject: Computer Networks

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 Write short notes of the following **(Any five)**:   (5×5=25)
- a) What is the use of topologies in networking?
- b) What do you understand by Line Configuration?
- c) Explain Attenuation and Distortion.
- d) How Synchronous TDM is different from Asynchronous TDM?
- e) Differentiate between "packet switching" & "circuit switching".
- f) How IPV4 is different from IPV6?
- g) What is the difference between single bit error & burst error?

UNIT-I

Q2 a) Describe the components of Data Communication along with diagram.   (5)
b) Explain OSI model. Write the functions and protocols of each layer.   (7.5)

Q3 a) Define networking and its goals.   (5)
b) Explain Transmission Impairment in detail.   (7.5)

UNIT-II

Q4 a) What do you understand by Multiplexing? Describe WDM & FDM. (5)
b) Explain Hamming Code with the help of an example.   (7.5)

Q5 a) Define Bit-Stuffing. How it is different from character stuffing? (5)
b) Explain any three error detection methods?   (7.5)

UNIT-III

Q6 a) What do you understand by Routing? Differentiate between adaptive and non-adaptive routing.   (5)
b) Describe repeater, router, switch, hub, bridge & gateway.   (7.5)

Q7 a) Differentiate between Distance Vector Routing & Link State Routing.   (5)
b) What is subnetting? Describe Unicast Routing Protocols.   (7.5)

UNIT-IV

Q8 a) Compare the TCP header with UDP header.   (5)
b) Explain Connection Management with the help of a diagram.   (7.5)

Q9 a) Discuss the design issue of session layer.   (5)
b) Describe any five protocols present on application layer with their functionality.   (7.5)

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