

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. <https://www.ggsipuonline.com> (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)
