

[Nov-22]

**GITAM (Deemed to be University)**

**[SDS341]**

**B.Sc. Degree Examination**

**(Math., Stat., & DS)**

**V SEMESTER**

**COMPUTER NETWORKS**

(Effective from the admitted batch 2020–21)

**Time: 3 Hours**

**Max.Marks: 60**

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**Instructions:** All parts of the unit must be answered in one place only.  
Figures in the right hand margin indicate marks allotted.

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**Section-A**

**1. Answer all Questions:** (10×2=20)

- a) What is the significance of Backbone Networks?
- b) Explain Gateways.
- c) Mention different types of Transmission Modes.
- d) List three main multiplexing techniques.
- e) Explain Network Layer.
- f) What is NAT? How can NAT help in address depletion?
- g) What is process to process delivery? Explain.
- h) Explain UDP.
- i) Explain traffic profiles.
- j) Name the policies that can prevent congestion.

**Section-B**

**Answer the following:** (5×8=40)

**UNIT-I**

**2. Explain LAN, MAN and WAN with diagram.**

**OR**

**3. What are the characteristics can be used to group stations in a VLAN?**

## **UNIT-II**

4. Explain Wavelength Division Multiplexing in detail.

**OR**

5. Explain synchronous Time Division Multiplexing.

## **UNIT-III**

6. Explain IPv4 Classful Addressing.

**OR**

7. Differentiate Internet as a datagram Network and Internet as a connectionless Network.

## **UNIT-IV**

8. What is transport layer? Explain briefly services provided by transport layer.

**OR**

9. Explain user datagram and checksum w.r.t. UDP.

## **UNIT-V**

10. Explain Traffic descriptor with traffic flow.

**OR**

11. Explain the flow characteristics of Quality of service.

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