

Reg No.: \_\_\_\_\_

Name: \_\_\_\_\_

**APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY**  
B.Tech Degree S3 (S) Examinations May 2026 (2024 Scheme)



**Course Code: PBCCT304**

**Course Name: BASIC CONCEPTS IN COMPUTER NETWORKS**

Max. Marks: 40

Duration: 2 hours 30 minutes

**PART A**

*(Answer all questions. Each question carries 2 marks)*

		CO	Marks
1	Elaborate on the significance of a layered interface in computer networks	CO1	(2)
2	What are the different forms of delay in Computer Networks?	CO1	(2)
3	What is FDM?	CO2	(2)
4	Identify the commonly utilized protocol standard for Ethernet and provide a brief description.	CO2	(2)
5	Identify and describe a networking device utilized in the network layer?	CO3	(2)
6	Can you explain why it's super important to configure a firewall correctly?	CO3	(2)
7	State any three key mechanisms for reliable data transfer?	CO4	(2)
8	Describe the concept of peer-to-peer file sharing and discuss its significance?	CO4	(2)

**PART B**

*(Answer any one full question from each module, each question carries 6 marks)*

**Module -1**

9	a) How can we categorize computer networks based on their geographic location?	CO1	4
	b) What is ARPANET?	CO1	2

- 10
- a) What are the common primitives used in computer networks? Draw its sequence diagram. CO1 4
- b) A file of size 10 Megabytes is transferred across a network. If the transfer takes 8 seconds, calculate the throughput in Mbps. CO1 2

#### Module -2

- 11
- a) Provide an in-depth review of any three of the guided transmission media. CO2 4
- b) Draw the frame format in IEEE 802.5? CO2 2
- a) Explain the selective repeat ARQ Technique? CO2 4
- 12
- b) A communication link delivers a signal with an output power of 2 mW, whereas the input power was 20 mW. Calculate the attenuation (in dB) experienced by the signal? CO2 2

#### Module -3

- 13
- a) Differentiate between Link State Routing and Distance Vector Routing? CO3 6
- 14
- a) What is Virtual Circuits and explain its use-case? CO3 4
- b) How can we interconnect two distinct networks? CO3 2

#### Module -4

- 15
- a) Differentiate between Connection oriented protocol and connectionless protocol? CO4 6
- a) Explain any three use-case of UDP? CO4 3
- 16
- Write a short note on
- b)
  - HTTP
  - S/MIME
CO4 3

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