GEETHANJALI INSTITUTE OF SCIENCE & TECHNOLOGY
(AN AUTONOMOUS INSTITUTION)
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QUESTIONBANK(DESCRIPTIVE)

Subject Name with Code: (23A0519T)
Course & Branch: B.TECHCSE, CSE(DS)&CSE(CS) **Year& Semester: II-IIRegulation: RG23**

UNIT - I

S.No.	Question	[BT Level] [CO][Marks]
2 Marks Questions (Short)		
1.	What is Broad band Network?	L1/CO1/2M
2.	What is a Home Network?	L1/CO1/2M
3.	define mobile and wireless network ?	L1/CO1/2M
4.	What is the Transit Network?	L1/CO1/2M
5.	What are the Service Primitives?	L1/CO1/2M
6.	What is meant by Internetworks?	L1/CO1/2M
7.	Describe types of wireless networks?	L2/CO1/2M
8.	Describe Content Provider Networks?	L2/CO1/2M
9.	**Explain Enterprise network?**	L1/CO1/2M
10.	Discuss Network Protocols?	L2/CO1/2M
11.	What is a computer network? Explain PAN, LAN, MAN and WAN with examples?	L2/CO1/10M
12.	a) Discuss Broadband Access Networks and their significance? b) Critique the TCP/IP Reference Model?	L2/CO1/10M
13.	a) What are Mobile and Wireless Access Networks? Provide examples? b) Describe Content Provider Networks and their role in internet architecture.?	L2/CO1/10M
14.	a) Compare Network technology from local to global levels? b) Explain the OSI Reference Model and its layers?	L2/CO1/10M
15.	a) Explain Transit Networks and their importance in internet connectivity? b) What are Network Protocols and their design goals?	L2/CO1/10M
16.	a) Analyze the structure and components of Enterprise Networks? b) Compare Network technology from local to global levels?	L4/CO1/10M
17.	a) Define and purpose of service protocols? b) Discuss connections and reliabilities?	L2/CO1/10M

UNIT - II

S.No.	Question	[BT Level] [CO][Marks]
2 Marks Questions (Short)		
1.	What is Guided Transmission Media?	L1/CO2/2M
2.	What is Persistent Storage?	L1/CO2/2M
3.	Describe Twisted Pair Cables?	L3/CO2/2M
4.	What are Fiber Optics?	L1/CO2/2M

5.	What is Error Control in the Data Link Layer?	L1/CO2/2M
6.	Define Flow Control in the Data Link Layer?	L1/CO2/2M
7.	What is a Simplex Link-Layer Protocol?	L1/C02/2M
8.	Describe the Sliding Window Protocol?	L2/CO3/2M
9.	What is the Channel Allocation Problem?	L1/CO3/2M
10.	What is CSMA/CD?	L1/CO3/2M
Descriptive Questions (Long)		
11.	Explain the differences between Guided Transmission Media types: Twisted Pairs, Coaxial Cable, and Fiber Optics.?	L1/CO2/10M
12.	Describe Data Link Layer Design Issues and Services Provided to the Network Layer?	L2/CO2/10M
13.	Compare Error-Detecting and Error-Correcting Codes?	L4/CO2/10M
14.	Explain the principles of Sliding Window Protocols and their importance.?	L2/CO2/10M
15.	Choose the Multiple Access Protocols: Aloha, Slotted Aloha, CSMA, CSMA/CD, and CSMA/CA?	L3/CO3/10M
16.	Describe the Classic Ethernet Physical Layer and its components?	L3/CO2/10M
17.	a) Compare Ethernet Performance: Classic Ethernet, Fast Ethernet, Gigabit Ethernet, and 10Gigabit Ethernet? b) Analyze the development and advantages of Switched Ethernet?	L4/CO3/10M
18.	a) Apply the Channel Allocation Problem and its solutions? b) Describe the assumptions for Dynamic Channel Allocation and their impact.?	L3/CO2/10M
19.	Explain about Various Types of wireless protocols?	L2/CO2/10M

UNIT - III

S.No.	Question	[BT Level] [CO][Marks]
2 Marks Questions (Short)		
1.	What are Network Layer Design Issues?	L1/CO4/2M
2.	Describe Store-and-Forward Packet Switching?	L3/CO4/2M
3.	What services are provided to the Transport Layer by the Network Layer?	L1/CO4/2M
4.	How is Connection-less Service implemented in the Network Layer?	L4/CO4/2M
5.	How is Connection-Oriented Service implemented in the Network Layer?	L4/CO4/2M
6.	Compare Virtual-Circuit and Datagram Networks?	L4/CO4/2M
7.	What is the Shortest Path Algorithm?	L1/CO4/2M
8.	Explain the Flooding Routing Algorithm?	L2CO4/2M
9.	What is Distance Vector Routing?	L1/CO4/2M
10.	Describe the role of IP Addresses in the Network Layer?	L4/CO4/2M
Descriptive Questions (Long)		
11.	Define switching? Explain Virtual circuit switching techniques?	L3/CO4/10M
12.	Compare Virtual-Circuit and Datagram networks?	L4/CO4/10M
13.	a) Explain briefly about the shortest path routing algorithm? b) Discuss the following: i) Broadcast Routing ii) Multicast Routing?	L2/CO4/10M
14.	Compare IPv4 and IPv6 protocols?	L4/CO4/10M
15.	a) Explain Link State Routing with an example?	L2/CO4/10M

	b) Distance Vector Routing algorithm with suitable example?	
16.	Explain routing algorithms in a single network with examples?	L2/CO4/10M
17.	a) What is the Optimality Principle in routing, and how is it applied? b) Explain the process of Packet Fragmentation and Reassembly?	L2/CO4/10M
18.	Distinguish between interior gateway routing protocol and exterior gateway protocol?	L2/CO4/10M

UNIT - IV

S.No.	Question	[BT Level] [CO][Marks]
2 Marks Questions (Short)		
1.	What is the Transport Service?	L1/CO5/2M
2.	What services are provided to the upper layers by the Transport Layer?	Distinguish between interior gateway routing protocol and exterior gateway protocol?
3.	What are the Transport Service Primitives?	L1/CO5/2M
4.	What are Berkeley Sockets?	L1/CO5/2M
5.	Give an example of socket programming?	L3/CO5/2M
6.	What are the elements of transport protocols?	L2/CO5/2M
7.	What is multiplexing in the context of transport protocols?	L3/CO5/2M
8.	What is the purpose of congestion control in the transport layer	L2/CO5/2M
9.	What is the UDP segment header?	L2/CO5/2M
10.	Describe TCP connection establishment?	L2/CO5/2M
Descriptive Questions (Long)		
11.	Discuss the transport service and its importance in networking?	L2/CO5/10M
12.	Explain the services provided by the Transport Layer to the upper layers?	L2/CO5/10M
13.	What are Transport Service Primitives? Provide examples?	L1/CO5/10M
14.	Describe Berkeley Sockets and their role in network programming?	L4/CO5/10M
15.	Provide an example of socket programming: An Internet File Server?	L4CO5/10M
16.	Explain the elements of transport protocols: Addressing, Connection Establishment, Connection Release, Error Control, and Flow Control?	L2/CO5/10M
17.	Discuss congestion control and its significance in the transport layer?	L3/CO5/10M
18.	Compare UDP and TCP protocols in the transport layer?	L4/CO5/10M
19.	a) Discuss about wireless issues? b) what is Desirable bandwidth Allocation?	L2/CO5/10M

UNIT - V

S.No.	Question	[BT Level] [CO][Marks]
2 Marks Questions (Short)		
1.	What is the role of a User Agent in electronic mail?	L2/CO6/2M
2.	Describe the standard message format for electronic mail?	L4/CO6/2M
3.	What is message transfer in electronic mail?	L1/CO6/2M
4.	Explain the concept of final delivery in electronic mail?	L2/CO6/2M
5.	What is a static web object?	L1/CO6/2M
6.	How do dynamic web pages differ from static web pages?	L4/CO6/2M
7.	What is the purpose of HTTPS in web communication	L1/CO6/2M

8.	Describe the role of Content Delivery Networks (CDNs)?	L2/CO6/2M
9.	What is a peer-to-peer (P2P) network?	L1/CO6/2M
10.	Outline the key milestones in the evolution of the internet?	L4/CO6/2M
Descriptive Questions (Long)		
11.	Describe the architecture and services of electronic mail?	L2/CO6/10M
12.	Explain the role and functions of the User Agent in electronic mail?	L1/CO6/10M
13.	Differentiate between static web objects and dynamic web pages?	L4/CO6/10M
14.	Describe the role of Content Delivery Networks (CDNs) and their benefits?	L2/CO6/10M
15.	Outline the evolution of the internet and key milestones?	L3/CO6/10M
16.	a) Explain Peer-to-Peer (P2P) Networks in detail? b) What is content delivery Networks?	L1/CO6/10M
17.	a) Discuss about HTTP and HTTPS? b) Apply the concept of Server farms and web proxies?	L2/CO6/5M L3/CO6/5M
18.	a) Discuss Static web and Objects? b) Describe dynamic web pages?	L2/CO6/10M

Signature of the Staff: A. Ramesh

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Signature of Department Academic Committee Member 2:

Signature of Department Academic Committee Member 3: