GEETHANJALI INSTITUTE OF SCIENCE & TECHNOLOGY
(AN AUTONOMOUS INSTITUTION)
(Approved by AICTE, New Delhi & Affiliated to JNTUA, Ananthapuramu)
(Accredited by NAAC with "A" Grade, NBA (EEE,ECE &ME) & ISO9001:2008CertifiedInstitution)

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 a Personal Area Network (PAN	L1/CO1/2M
2.	What is a Home Network	L1/CO1/2M
3.	What are Wide Area Networks (WANs)	L1/CO1/2M
4.	What is the OSI Reference Model	L1/CO1/2M
5.	What are Service Primitives?	L1/CO1/2M
6	What is meant by Internetworks?	L1/CO1/2M
6.	**Critique the TCP/IP Reference Model.** The TCP/IP model	L3/CO1/2M
7.	Define Local Area Network (LAN)	L1/CO1/2M
8.	**Explain Metropolitan Area Network (MAN)?**	L1/CO1/2M
9.	Discuss Network Protocols?	L2/CO1/2M
Descriptive Questions (Long)		
10.	a)What is a computer network? Explain PAN,LAN, MAN and WAN with examples?	L2/CO1/10M
11.	a)Discuss Broadband Access Networks and their significance? b)Critique the TCP/IP Reference Model?	L2/CO1/10M
12.	a)What are Mobile and Wireless Access Networks? Provide examples? b)Describe Content Provider Networks and their role in internet architecture.?	L2/CO1/10M
13.	a)Compare Network technology from local to global levels? b) Explain the OSI Reference Model and its layers?	L2/CO1/10M
14.	a)Explain Transit Networks and their importance in internet connectivity? b) What are Network Protocols and their design goals?	L2/CO1/10M
15.	a)Analyze the structure and components of Enterprise Networks? b)Compare Network technology from local to global levels?	L4/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	L2/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.	Explain 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.	L2/CO3/10M
18.	a)Apply the Channel Allocation Problem and its solutions b)Describe the assumptions for Dynamic Channel Allocation and their impact.	L4/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/CO4/12M
12.	Compare Virtual-Circuit and Datagram networks?	L4/CO4/12M
13.	a)Explain briefly about the shortest path routing algorithm? b)Discuss the following: i) Broadcast Routing ii) Multicast Routing?	L2/CO4/12M
14.	Compare IPv4 and IPv6 protocols.	L4/CO4/12M
15.	a)Explain Link State Routing with an example b) Distance Vector Routing algorithm with suitable example.	L2/CO4/12M
16.	Explain routing algorithms in a single network with examples	L2/CO4/12M
17.	a)What is the Optimality Principle in routing, and how is it applied? b) Explain the process of Packet Fragmentation and Reassembly	L2/CO4/12M

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	L1/CO5/2M
3.	What are 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.	a)Discuss the transport service and its importance in networking?	L2/CO5/12M
12.	Explain the services provided by the Transport Layer to the upper layers..	L2/CO5/12M
13.	What are Transport Service Primitives? Provide examples.	L1/CO5/12M
14.	Describe Berkeley Sockets and their role in network programming.	L4/CO5/12M
15.	Provide an example of socket programming: An Internet File Server.	L4CO5/12M
16.	Explain the elements of transport protocols: Addressing, Connection Establishment, Connection Release, Error Control, and Flow Control.	L2/CO5/12M
17.	Discuss congestion control and its significance in the transport layer.	L3/CO5/12M
18.	Compare UDP and TCP protocols in the transport laye	L4/CO5/12M

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/CO6/12M
12.	Explain the role and functions of the User Agent in electronic mail?	L1/CO6/12M
13.	Differentiate between static web objects and dynamic web pages.	L4/CO6/12M
14.	Describe the role of Content Delivery Networks (CDNs) and their benefits?	L2/CO6/12M

15.	Outline the evolution of the internet and key milestones.	L3/CO6/12M

Signature of the Staff:A.ramesh

Signature of Department Academic Committee Member 1:

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