Roll No: | | | | | | | | | | | | |

BTECH
(SEM VI) THEORY EXAMINATION 2021-22
COMPUTER NETWORKS

Time: 3 Hours   *Total Marks: 70*

Note: Attempt all Sections. If you require any missing data, then choose suitably.

SECTION A

1. **Attempt *all* questions in brief.**   2*7 = 14

Q.no	Questions	Marks	CO
(a)	Briefly define the Medium Access sub layer.	2	2
(b)	What are header and trailers and how do they get added and removed under layered model?	2	1
(c)	Discuss in brief about the Error Handling application at Data Link Layer in OSI model.	2	2
(d)	What are the applications of Computer Networks?	2	1
(e)	Discuss about the difference between network layer delivery and the transport layer delivery?	2	3
(f)	Discuss in brief about the concept of piggybacking?	2	3
(g)	Mention any two protocols working at Application Layer under OSI model.	2	5

SECTION B

2. **Attempt any *three* of the following:**   7*3 = 21

Q.no	Questions	Marks	CO
(a)	Discuss about the File Transfer, Access Management under application layer in OSI model.	7	5
(b)	Discuss about the ALOHA protocols and Fiber Distributed Data Interface (FDDI) in detail.	7	2
(c)	Write short note on any two of the following: i. Stop and Wait ARQ ii. Sliding Window Protocol iii. Go Back N-ARQ	7	3
(d)	Discuss about the Transport Layer connection management. What are session Layer-Design issues?	7	4
(e)	Define topology and explain the advantage and disadvantage of Bus, Star and Ring topologies.	7	1

SECTION C

3. **Attempt any *one* part of the following:**   7*1 = 7

Q.no	Questions	Marks	CO
(a)	Discuss in detail about the concept of Electronic mail and Virtual Terminals under the application layer in OSI model.	7	5
(b)	Discuss different carrier sense protocols. How are they different than collisions protocols?	7	2

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4. **Attempt any _one_ part of the following:** **7 *1 = 7**

Q.no	Questions	Marks	CO
(a)	What is OSI Model? Explain the functions; protocols and services of each layer?	7	1
(b)	What are the advantages of Next-generation IPV6 over IPV4?	7	3

5. **Attempt any _one_ part of the following:** **7*1 = 7**

Q.no	Questions	Marks	CO
(a)	Discuss about the Presentation Layer-Design issues and about the Data compression techniques under Transport layer in OSI model.	7	4
(b)	Write short notes on any two of the following. (i) DNS (ii) TELNET (iii) SMTP	7	5

6. **Attempt any _one_ part of the following:** **7*1 = 7**

Q.no	Questions	Marks	CO
(a)	What is Congestion? Briefly describe the techniques that prevent congestion.	7	2
(b)	Discuss in detail about Switching methods and all of its types?	7	1

7. **Attempt any _one_ part of the following:** **7*1 = 7**

Q.no	Questions	Marks	CO
(a)	What is IP addressing? How it is classified? How is subnet addressing is performed?	7	3
(b)	How the transport layer unsure that the complete message arrives at the destination and in the proper order?	7	4