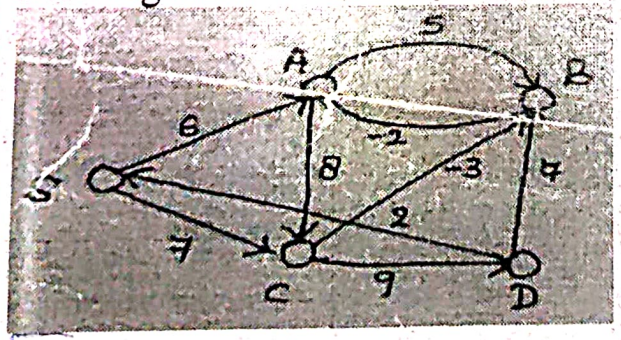
Student Name: University Roll No.:	Printed Pages: 2

School of Engineering
Second Theory Sessional Examination
Odd Semester (AS: 2024-25)

B. Tech: CSE/CSAI/IOTBC/CCML [Year: 3rd] [Semester: 5th]	
Course Title: Computer Network Course Code: BCS3553	Max Marks: 30 Time: 1hrs

Instructions: 1-Mention any assumptions made.
2-Notations have usual meaning.

SECTION 'A' Q.N.1. Attempt all parts of the following:		Course Objective	Marks
a)	State the purpose of maintaining the routing table and where it is maintained?	CO6	1
b)	State the advantages of UDP over TCP.	CO5	1
c)	List design issues of session layer.	CO4	1
d)	Define data compression.	CO7	1
e)	What is DNS and why it is required?	CO5	1
SECTION 'B' **Q.N.2. Attempt any two parts of the following:**		**Course Objective**	**Marks**
a)	Explain with the help of example which one is better selective repeat ARQ or Go-Back-N ARQ.	CO3	7.5
b)	Compute the shortest path using Bellman Ford algorithm for node S. 	CO6	7.5

c)	List different carrier sense protocol and explain them briefly. How CSMA/CD protocol is different from CSMA/CA protocol?	CO2	7.5
	SECTION 'C' **Q.N.3. Attempt any one parts of the following:**	**Course Objective**	**Marks**
a)	What is meant by congestion in network? What are the limitations of leaky bucket algorithm? How are they resolved?	CO3	10
b)	What is computer network security? Explain various functions, tools and software	CO7	10
c)	Write short notes on- i. HTTP ii. DNS iii. FTP iv. SMTP	CO5	10

Table 1: Mapping between COs and questions

COs	Questions Numbers	Total Marks
CO2	2(c)	**7.5**
CO3	2(a),3(a)	**17.5**
CO4	1(c)	**1**
CO5	1(b),1(e),3(c)	**12**
CO6	1(a),2(b)	**8.5**
CO7	1(d),3(b)	**11**