Invertis University, Bareilly

PO Attainment

Faculty Name: Dr.Gaurav Agarwal Class/Sem: M.TECH(CS)/2 Academic Year: 2022-23

Course Name: NETWORK SECURITY AND CRYPTOGRAPHY Course Code: MCS-213 Program Name: M.TECH(CS)

CO-PO MAPPING:

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	1	3			2	3	2	3			
CO2	1	1	1		3	3	1	3	3	1	2	1
CO3	1		1	1	3	2	2	3	2		1	
CO4	2	1	3	1		1	3	1			2	
CO5	3	1	2	1	2		1	1	1	2	1	2
CO6	2	3	3	3	1	2	1	1	3		3	1

CO ATTAINMENT:

Dr.Gaurav Agarwal	Att. Level
CO1	3.00
CO2	3.00
CO3	3.00
CO4	3.00
CO5	3.00
CO6	3.00

PO ATTAINMENT :

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
Overall PO Attainment	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0

Registrar
Invertis University
Bareilly

Head
Department of Computer Science & Engg.

Dean
Faculty of Engineering & Technology
Invertis University
Bareilly-243123, UP

Faculty Signature

INVERTIS UNIVERSITY BAREILLY

NAAC

Invertis University, Bareilly

CO Attainment

Faculty Name: Dr Gaurav Agarwal | Class/Sem: M.TECH(CS)/2 | Academic Year: 2022-23

Course Name: NETWORK SECURITY AND CRYPTOGRAPHY | Course Code: MCS-213 | Program Name: M.TECH(CS)

S. No.	University Reg. No.	Student Name	First Unit Test	Second Unit Test	First Class Test	Second Class Test	Best One From Unit Test	Best One From Class Test	Internal Marks Scheme: Unit Test(UT)	Internal Marks Scheme: Attendance(AT)	Internal Marks Scheme: Teacher Assessment(TA)	Total Internal Marks	End Sem Exam Marks	Total Marks
			Theory (30)	Theory (30)	Theory (10)	Theory (10)	Theory (30)	Theory (10)	12	12	5	Theory (30)	Theory (70)	Theory (100)
1	MCS2022001	AKASH VERMA	28	22	8	7	28	8	11	11	5	27	57	84
2	MCS2022003	PRAJWAL SHARMA	30	24	8	7	30	8	12	11	5	28	53	81
3	MCS2022002	SAURABH KUMAR SINGH	30	24	8	7	30	8	12	11	5	28	58	86
4	MCS2022004	NEHA SINGH	30	24	8	7	30	8	12	12	5	29	53	82
		Students appeared for the examination	4	4	4	4	4	4	4	4	4	22	4	4
		Target satisfactory mark set as benchmark	12	12	4	4	12	4	5	5	2	12	28	40
		Students scored above the target set	4	4	4	4	4	4	4	4	4	12	4	4
		% Students scored above the target set	100%	100%	100%	100%	100%	100%	100%	100%	100%	18	100%	100%
		Attainment Level	3	3	3	3	3	3	3	3	3	15	3	3

														Overall
CO1	3		3		3	3	3	3	3	15	3	3	3.00
CO2	3		3		3	3	3	3	3	15	3	3	3.00
CO3	3				3		3	3		15	3	3	3.00
CO4		3		3	3	3	3	3	3	15	3	3	3.00
CO5		3		3	3	3	3	3	3	15	3	3	3.00
CO6		3			3		3	3		15	3	3	3.00

Rubric	
% Students	Level
<50%	1
50-75%	2
>75%	3

Overall attainment	3.00

Faculty Signature

Head
Department of Computer Science & Engineering
Invertis University
Bareilly-243123, UP

Dean
Faculty of Engineering & Technology
Invertis University
Bareilly-243123, UP

Registrar
Invertis University
Bareilly

INVERTIS UNIVERSITY BAREILLY

Even Semester Examination 2022-23

M.TECH(CS)-II Semester

Course/Code: NETWORK SECURITY AND CRYPTOGRAPHY(MCS-213)

Maximum Marks :70; Duration: 3 Hours

Q.No	Questions	Marks (70)	CO	BL
	Explain the following:			
1-I	Define the term threat.	01	CO1	L2
1-II	Name any two steganography techniques.	01	CO2	L1
1-III	Explain the term intruder.	01	CO2	L2
1-IV	What is the size of matrix in playfair cipher?	01	CO2	L1
1-V	Explain the working of trojan horse briefly.	01	CO2	L1
1-VI	Differentiate between white hat and black hat hacker.	01	CO1	L1
1-VII	Find the value of $\Phi(87)$.	01	CO1	L1
	Explain the following:			
2-I	Explain the term computationally secure.	01	CO1	L1
2-II	Name the algorithm used for primality testing.	01	CO1	L1
2-III	Write the commutative law.	01	CO1	L1
2-IV	Write a special property related to size of hash code.	01	CO1	L2
2-V	Explain the term data integrity.	01	CO1	L1
2-VI	Explain the role of updating an antivirus.	01	CO1	L1
2-VII	How many S-box are there in DES?	01	CO1	L1
3-I	(a) Explain the five ingredients of network model. Or (b) Explain briefly the counter mode of operation. Also write the advantages associated with it.	7	CO2	L2
3-II	(a) Explain one time pad. Or (b) State and prove Fermat's theorem.	7	CO3	L3
4-I	(a) Explain the overall working of DES algorithm. Or (b) Find gcd(2084, 720) using Euclid's algorithm.	7	CO3	L5
4-II	(a) Explain the requirements of public key cryptography. Or (b) Explain Diffie Hellman key exchange algorithm.	7	CO4	L3
5	(a) Explain.the role of firewall in network security. Discuss the various types of firewalls in brief. Or (b) Explain Kerberos Version4 in detail.	14	CO5	L4
6	(a) Explain SHA algorithm with the help of a diagram. Or (b) Write short notes on: (i) RSA (ii) PGP (iii) Public key cryptography (iv) MD5	14	CO6	L6

Registrar
Invertis University
Bareilly

BL – Bloom's Taxonomy Levels
(1- Remembering, 2- Understanding, 3 – Applying, 4 – Analysing, 5 – Evaluating, 6 - Creating)
CO – Course Outcomes PO – Program Outcomes; PI Code – Performance Indicator Code

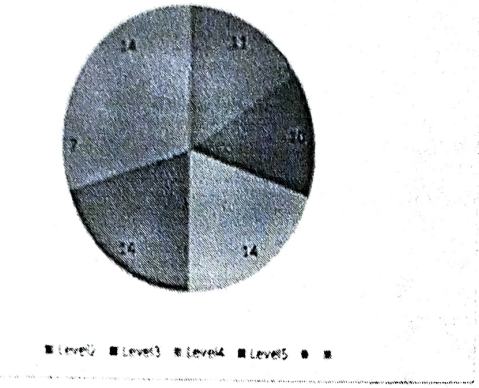
Level	Marks	CO	Marks
Level1	11	CO1	10
Level2	10	CO2	11
Level3	14	CO3	14

Head
Department of Computer Science & Engineering

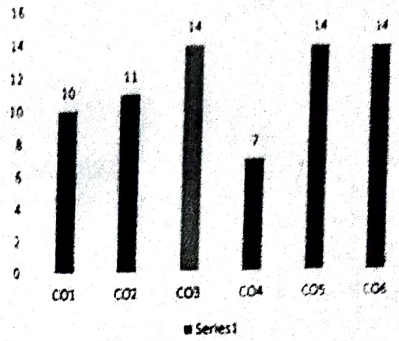
Dean
Faculty of Engineering & Technology
Invertis University
Bareilly-243123, UP

Level4	14	CO4	7
Level5	-	CO5	14
Level6	14	CO6	14
Total	70	**Total**	**70**

Bloom's Level wise Marks Distribution



Course Outcome wise Marks Distribution



Head
Department of Computer Science & Engineering
Invertis University
Bareilly-243123 UP

Dean
Faculty of Engineering & Technology
Invertis University
Bareilly-243123, UP

Registrar
Invertis University
Bareilly

INVERTIS UNIVERSITY BAREILLY

NAAC

First Unit Test 2022-23

M.TECH(CS)-II Semester

Code: NETWORK SECURITY AND CRYPTOGRAPHY(MCS-213)

Maximum Marks :30; Duration: 90 Minutes

Q.No	Questions	Marks (30)	CO	BL
	Explain the following in very short -			
1-I	What is Key Management?	01	CO1	L1
1-II	What is Data Encryption?	01	CO1	L1
1-III	Define the term threat.	01	CO2	L2
1-IV	Explain Block Cipher Design.	01	CO1	L2
1-V	Explain the working of trojan horse briefly.	01	CO1	L1
2-I	Explain the term computationally secure.	01	CO2	L2
2-II	Name any two stepanography techniques.	01	CO2	L1
2-III	Find the value of Φ(87).	01	CO2	L2
2-IV	How many S-box are there in DES?	01	CO2	L2
2-V	What is the size of matrix in playfair cipher?	01	CO2	L1
3	Explain the five ingredients of network model. Or Explain one time pad.	08	CO2	L3
4-A	Explain OSI Security Architecture. Or Write down MD5 message Digest algorithm.	06	CO3	L4
4-B	Write down Block Cipher Design Principles. Or Explain Modes of Operation Evaluation criteria for AES.	06	CO3	L4

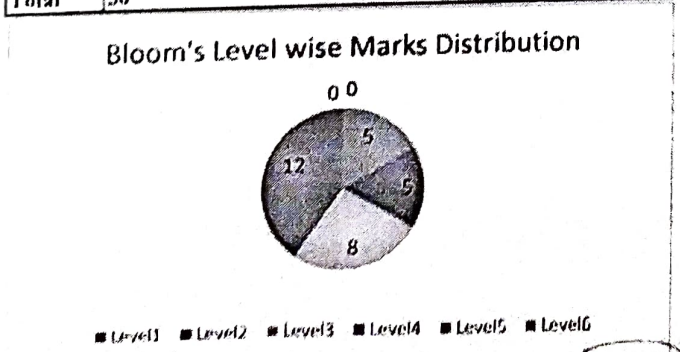
BL – Bloom's Taxonomy Levels

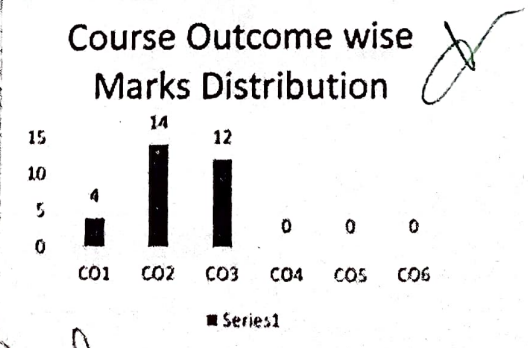
(1- Remembering, 2- Understanding, 3 – Applying, 4 – Analysing, 5 – Evaluating, 6 - Creating)

CO – Course Outcomes PO – Program Outcomes; PI Code – Performance Indicator Code

Level	Marks
Level1	5
Level2	5
Level3	8
Level4	12
Level5	0
Level6	0
Total	30

CO	Marks
CO1	4
CO2	14
CO3	12
CO4	0
CO5	0
CO6	0
Total	30





Head
Department of Computer Science & Engineering
Invertis University
Bareilly-243123, UP

Dean
Faculty of Engineering & Technology
Invertis University
Bareilly-243123, UP

INVERTIS UNIVERSITY BAREILLY

NAAC

Second Unit Test 2022-23

M.TECH(CS)-II Semester

de: NETWORK SECURITY AND CRYPTOGRAPHY(MCS-213)

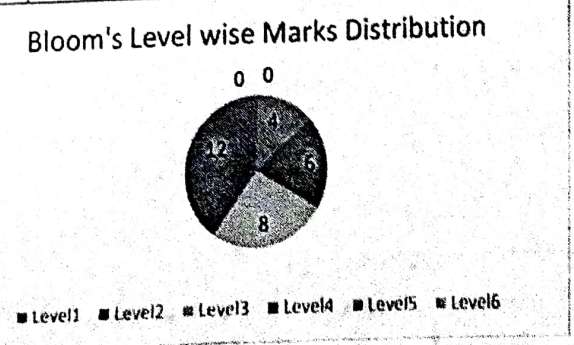
Maximum Marks :30; Duration: 90 Minutes

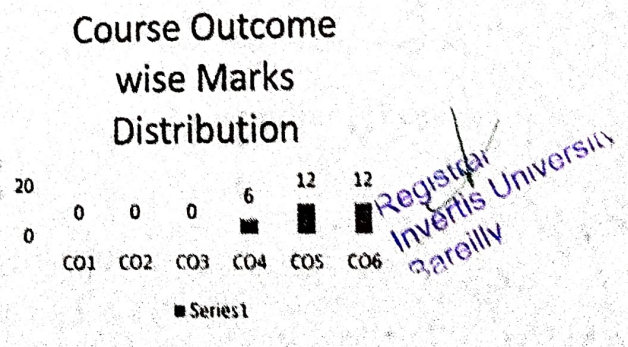
Q.No	Questions	Marks (30)	CO	BL
	Explain the following in very short -			
1-I	What is X.509 Authentication Service?	01	CO4	L1
1-II	Explain PGP.	01	CO4	L1
1-III	Explain Web Security	01	CO4	L2
1-IV	Explain Viruses and related Threats	01	CO4	L1
1-V	What are the Firewall Design Principles ?	01	CO4	L1
	Explain the following function -			
2-I	Explain Trusted Systems.	01	CO4	L2
2-II	What are the Digital Signature Standards?	01	CO5	L2
2-III	What is hash function?	01	CO5	L2
2-IV	Write something about Confidentiality using Symmetric Encryption.	01	CO5	L2
2-V	Explain the term data integrity.	01	CO5	L2
3	(a) Explain the overall working of DES algorithm. Or (b) Find gcd(2084, 720) using Euclid's algorithm.	08	CO5	L3
4-A	(a) Explain SHA algorithm with the help of a diagram. Or (b) Write short notes on: (i) RSA (ii) PGP (iii) Public key cryptography (iv) MD5	12	CO6	L4

BL – Bloom's Taxonomy Levels
(1- Remembering, 2- Understanding, 3 – Applying, 4 – Analysing, 5 – Evaluating, 6 - Creating)
CO – Course Outcomes PO – Program Outcomes; PI Code – Performance Indicator Code

Level	Marks
Level1	4
Level2	6
Level3	8
Level4	12
Level5	0
Level6	0
Total	30

CO	Marks
CO1	0
CO2	0
CO3	0
CO4	6
CO5	12
CO6	12
Total	30





Registrar
Invertis University
Bareilly

Department of ... & Engineering
Invertis University
Bareilly-243123 UP

Dean
Faculty of Engineering & Technology
Invertis University
Bareilly-243123, UP

INVERTIS UNIVERSITY BAREILLY

NAAC

First Class Test 2022-23

M.TECH(CS)-II Semester

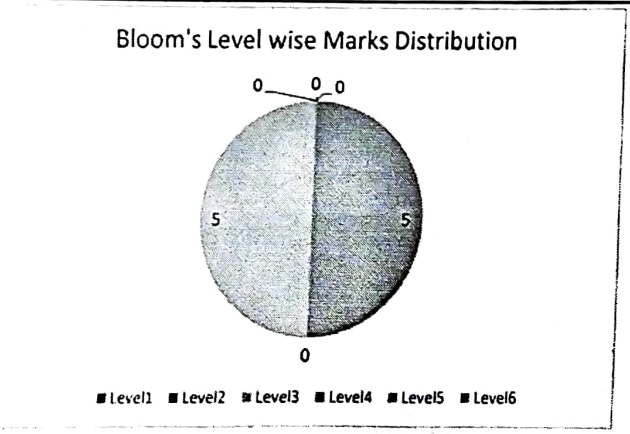
Course/Code: NETWORK SECURITY AND CRYPTOGRAPHY(MCS-213)

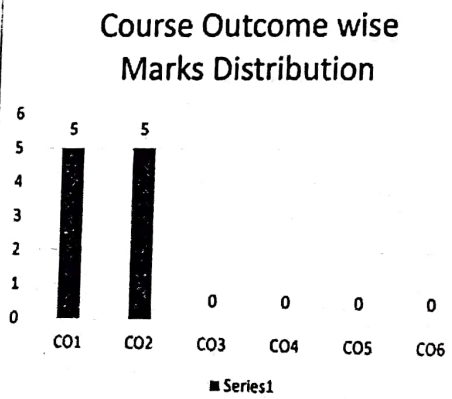
Maximum Marks :10; Duration: 30 Minutes

Q.No	Questions	Marks (10)	CO	BL
1	Explain the term data integrity.	05	CO1	L3
2	Explain the five ingredients of network model.	05	CO2	L1

BL – Bloom's Taxonomy Levels
(1- Remembering, 2- Understanding, 3 – Applying, 4 – Analysing, 5 – Evaluating, 6 - Creating)
CO – Course Outcomes PO – Program Outcomes; PI Code – Performance Indicator Code

Level	Marks	CO	Marks
Level1	5	CO1	5
Level2	0	CO2	5
Level3	5	CO3	0
Level4	0	CO4	0
Level5	0	CO5	0
Level6	0	CO6	0
Total	10	Total	10





Head
Department of Computer Science & Engineering
Invertis University
Bareilly-243123, UP

Dean
Faculty of Engineering & Technology
Invertis University
Bareilly-243123, UP

Registrar
Invertis University
Bareilly

INVERTIS UNIVERSITY BAREILLY

NAAC

Second Class Test 2022-23

M.TECH(CS)-II Semester

urse/Code: NETWORK SECURITY AND CRYPTOGRAPHY(MCS-213)

Maximum Marks :10; Duration: 30 Minutes

Q.No	Questions	Marks (10)	CO	BL
1	Explain Diffie Hellman key exchange algorithm.	05	CO4	L2
2	Explain Kerberos Version4 in detail.	05	CO5	L1

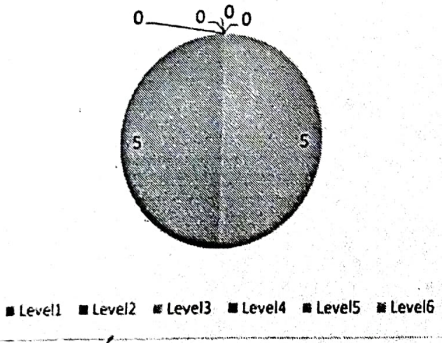
BL – Bloom's Taxonomy Levels

(1- Remembering, 2- Understanding, 3 – Applying, 4 – Analysing, 5 – Evaluating, 6 - Creating)

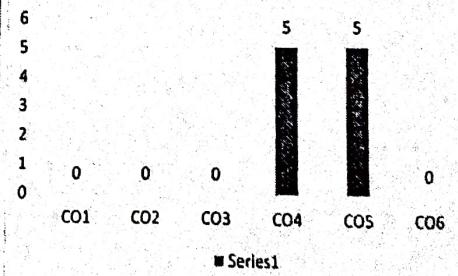
CO – Course Outcomes PO – Program Outcomes; PI Code – Performance Indicator Code

Level	Marks	CO	Marks
Level1	5	CO1	0
Level2	5	CO2	0
Level3	0	CO3	0
Level4	0	CO4	5
Level5	0	CO5	5
Level6	0	CO6	0
Total	**10**	**Total**	**10**

Bloom's Level wise Marks Distribution



Course Outcome wise Marks Distribution



Head
Department of Computer Science & Engineering
Invertis University
Bareilly-243123, UP

Dean
Faculty of Engineering & Technology
Invertis University
Bareilly-243123, UP

Registrar
Invertis University
Bareilly

Invertis University, Bareilly

PO Attainment

Faculty Name: Dr.Akash Sanghi Class/Sem: M.Tech(CS)/I Academic Year: 2022-23

Course Name: Advanced computer networks Course Code: MCS103 Program Name: M.Tech(CS)

CO-PO MAPPING:

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	1	3			2	3	2	3			
CO2	1	1	1		3	3	1	3	3	1	2	1
CO3	1		1	1	3	2	2	3	2		1	
CO4	2	1	3	1		1	3	1			2	
CO5	3	1	2	1	2		1	1	1	2	1	2
CO6	2	3	3	3	1	2	1	1	3		3	1

CO ATTAINMENT:

Dr.Akash Sanghi	Att. Level
CO1	2.67
CO2	2.67
CO3	3.00
CO4	2.56
CO5	2.56
CO6	2.83

PO ATTAINMENT :

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
Overall PO Attainment	2.7	2.7	2.7	2.8	2.8	2.8	2.7	2.8	2.8	2.6	2.7	2.7

Head
Department of Computer Science & Engineering
Invertis University
Bareilly-243123, UP

Dean
Faculty of Engineering & Technology
Invertis University
Bareilly-243123, UP

Faculty Signature

INVERTIS

Invertis University, Bareilly

CO Attainment

Faculty Name: Dr Akash Sanghi | Class/Sem: M.Tech(CS)/I | Academic Year: 2022-23

Course Name: Advanced computer networks | Course Code: MCS103 | Program Name: M.Tech(CS)

S. No.	University Reg. No.	Student Name	First Unit Test	Second Unit Test	First Class Test	Second Class Test	Best One From Unit Test	Best One From Class Test	Internal Marks Scheme: Unit Test(UT)	Internal Marks Scheme: Attendance (AT)	Internal Marks Scheme: Teacher Assignment (TA)	Total Internal Marks	End Sem Exam Marks	Total Marks
			Theory (30)	Theory (30)	Theory (10)	Theory (10)	Theory (30)	Theory (10)	12	12	4	Theory (30)	Theory (70)	Theory (100)
1	MCS2022001	AKASH VERMA	30	24	8	*	30	8	12	12	5	29	43	72
2	MCS2022003	PRATWAL SHARMA	30	24	8	*	30	8	12	11	5	28	45	73
3	MCS2022002	SAURABH KUMAR SINGH	30	24	8	*	30	8	12	11	5	28	56	84
4	MCS2022004	NITESH SINGH	13	10	3	3	13	3	5	5	2	12	51	63
		Students appeared for the examination	4	4	4	4	4	4	4	4	4	22	4	4
		Target satisfactory mark set as benchmark	12	12	4	4	12	4	5	5	2	12	28	40
		Students scored above the target set	4	3	3	3	4	3	4	4	3	12	4	4
		% Students scored above the target set	100%	75%	75%	75%	100%	75%	100%	100%	75%	18	100%	100%
		Attainment Level	3	2	2	2	3	2	3	3	2	15	3	3

													Overall
CO1	3		2		3	2	3	3	2	15	3	3	2.87
CO2	3		2		3	2	3	3	2	15	3	3	2.87
CO3	3				3		3	3		15	3	3	3.00
CO4		2		2	3	2	3	3	2	15	3	3	2.56
CO5		2		2	3	2	3	3	2	15	3	3	2.56
CO6		2			3		3	3		15	3	3	2.83

Rubric:

% Students	Level
<50%	1
50-75%	2
>75%	3

Overall attainment	2.71

Faculty Signature

Head
Department of Computer Science & Engineering
Invertis University
Bareilly-243123 UP

Dean
Faculty of Engineering & Technology
Invertis University
Bareilly-243123 (UP)

Registrar
Invertis University
Bareilly

INVERTIS UNIVERSITY BAREILLY

Odd Semester Examination 2022-23

M.TECH(CS)-I Semester

Course/Code: ADVANCED COMPUTER NETWORKS (MCS-103)

Maximum Marks :70; Duration: 3 Hours

Q.No	Questions	Marks (70)	CO	BL
	Explain the following:			
1-I	To which OSI layer doer RARP belong?	01	CO1	L2
1-II	Find the error in the following IP Address 75.45.301.14.	01	CO2	L1
1-III	Find the class of the following addresses (a) 158.223.1.108 (b) 227.13.14.88	01	CO2	L2
1-IV	What is care of address?	01	CO2	L1
1-V	Explain in brief broadcasting.	01	CO2	L1
1-VI	What do you mean by MLSR?	01	CO1	L1
1-VII	What is NAT?	01	CO1	L1
	Explain the following:			
2-I	Draw the packet format of IPv6 datagram.	01	CO1	L1
2-II	Name the features of SCTP.	01	CO1	L1
2-III	What do you mean by half duplex communication?	01	CO1	L1
2-IV	What is a home agent?	01	CO1	L2
2-V	What is an loopback address?	01	CO1	L1
2-VI	What is RPF?	01	CO1	L1
2-VII	Briefly explain CIDR.	01	CO1	L1
3-I	(a) Explain the concept of supernetting. What are the advantages of supernetting. Or (b) What is the subnetwork address if the destination address is 200.45.34.56 and the subnet mask is 255.255.240.0?	7	CO2	L2
3-II	(a) Compare UDP, TCP, and SCTP briefly. Or (b) Briefly discuss the applications of multicasting.	7	CO3	L3
4-I	(a) What is ARP? Explain the working of ARP. Or (b) Explain wireless networks in mobile computing. Differentiate between fixed and wireless networks.	7	CO3	L5
4-II	(a) Discuss the various services offered by SCTP. Or (b) Compare and contrast IPv6 and IPv4.	7	CO4	L3
5	(a) An organization is granted the block 130.34.12.64/26. The organization needs to have four subnets. What are the subnet addresses and the range of addresses for each subnet? Or (b) A company is granted the site address 201.70.64.0 (class C). The company needs six subnets. Design the subnets.	14	CO5	L4
6	(a) Write short notes on: (i) IGMP (ii) Multicast routing (iii) Mobile agent (iv) Foreign agent. Or (b) Explain Mobile TCP in detail.	14	CO6	L6

Registrar
Invertis University
Bareilly

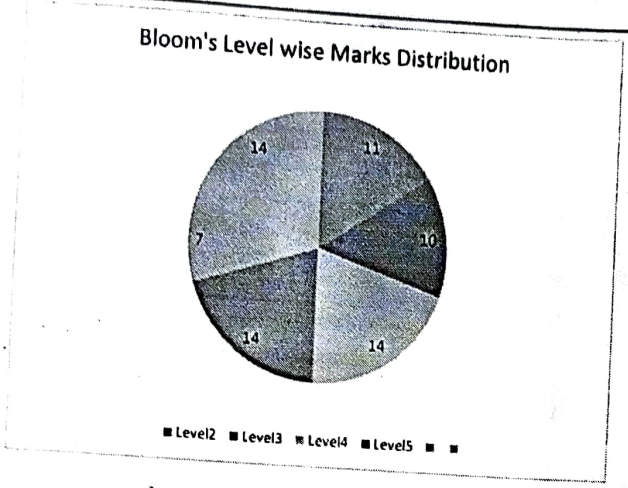
BL – Bloom's Taxonomy Levels
(1- Remembering, 2- Understanding, 3 – Applying, 4 – Analysing, 5 – Evaluating, 6 - Creating)
CO – Course Outcomes PO – Program Outcomes; PI Code – Performance Indicator Code

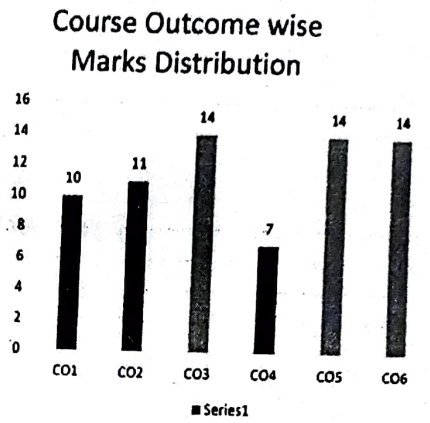
Level	Marks	CO	Marks
Level1	11	CO1	10
Level2	10	CO2	11

Dean
Faculty of Engineering & Technology
Invertis University
Bareilly-243123, UP

Department of Computer Science & Engineering
Invertis University

Level3	14		
Level4	14	CO3	14
Level5	7	CO4	7
Level6	14	CO5	14
Total	70	CO6	14
		Total	70





Head
Department of Computer Science & Engineering
Invertis University
Bareilly-243123 UP

Dean
Faculty of Engineering & Technology
Invertis University
Bareilly-243123, UP

Registrar
Invertis University
Bareilly

INVERTIS UNIVERSITY BAREILLY

NAAC

First Unit Test 2022-23

M.TECH(CS)-I Semester

se/Code: ADVANCED COMPUTER NETWORKS (MCS-103)

Maximum Marks :30; Duration: 90 Minutes

Q.No	Questions	Marks (30)	CO	BL
	Explain the following in very short -			
1-I	Draw the packet format of IPv6 datagram.	01	CO1	L1
1-II	Difference between ARP and RARP.	01	CO1	L1
1-III	To which OSI layer doer RARP belong?	01	CO2	L2
1-IV	Write dow the full form of IPv6.	01	CO1	L2
1-V	Name the features of SCTP.	01	CO1	L1
2-I	Find the class of the following addresses (a) 158.223.1.108 (b) 227.13.14.88	01	CO2	L2
2-II	Explain the concept of supernetting.	01	CO2	L1
2-III	Explain in brief broadcasting.	01	CO2	L2
2-IV	Difference between TCPand UDP	01	CO2	L2
2-V	What are the advantages of supernetting.	01	CO2	L1
3	(a) Explain the concept of supernetting. What are the advantages of supernetting. Or (b) What is the subnetwork address if the destination address is 200.45.34.56 and the subnet mask is 255.255.240.0?	08	CO2	L3
4-A	Compare UDP, TCP, and SCTP briefly. Or Explain wireless networks in mobile computing. Differentiate between fixed and wireless networks.	06	CO3	L4
4-B	What is ARP? Explain the working of ARP. Or Briefly discuss the applications of multicasting.	06	CO3	L4

BL - Bloom's Taxonomy Levels

(1- Remembering, 2- Understanding, 3 – Applying, 4 – Analysing, 5 – Evaluating, 6 - Creating)

CO – Course Outcomes PO – Program Outcomes; PI Code - Performance Indicator Code

Level	Marks	CO	Marks
Level1	5	CO1	4
Level2	5	CO2	14
Level3	8	CO3	12
Level4	12	CO4	0
Level5	0	CO5	0
Level6	0	CO6	0
Total	30	Total	30

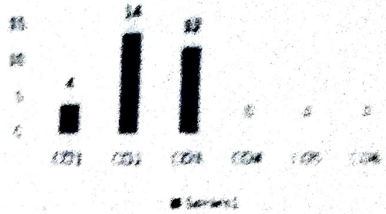
Head
Department of Computer Science & Engineering
Invertis University
Bareilly-243123, UP

Dean
Faculty of Engineering & Technology
Invertis University
Bareilly-243123, UP

Registrar
Invertis University
Bareilly

Bloom's Level wise Marks Distribution

Course Outcome wise Marks Distribution



Head
Department of Computer Science
& Engineering
Invertis University
Bareilly 243123, UP

Dean
Faculty of Engineering & Technology
Invertis University
Bareilly 243123, UP

Registrar
Invertis University
Bareilly

INVERTIS UNIVERSITY BAREILLY

NAAC

Second Unit Test 2022-23

M.TECH(CS)-I Semester

e/Code: ADVANCED COMPUTER NETWORKS (MCS-103)

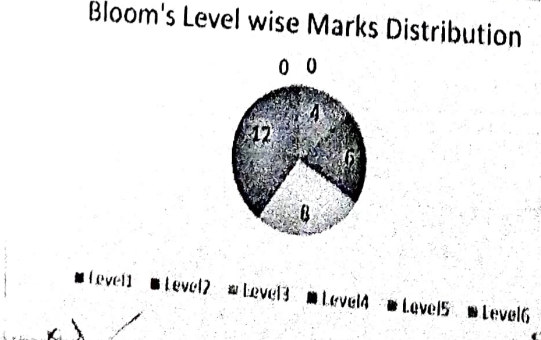
Maximum Marks :30; Duration: 90 Minutes

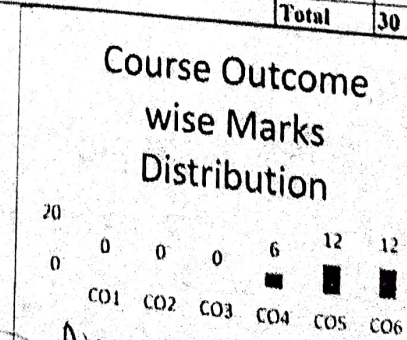
Q.No	Questions	Marks (30)	CO	BL
	Explain the following in very short -			
1-I	Write down TCP.	01	CO4	L1
1-II	What is UDP?	01	CO4	L1
1-III	Explain P2P file sharing.	01	CO4	L2
1-IV	What is VLAN?	01	CO4	L1
1-V	What do you mean by topology?	01	CO4	L1
	Explain the following function -			
2-I	What is Virtual private network?	01	CO4	L2
2-II	Write down any routing algorithm.	01	CO5	L2
2-III	What is WLAN?	01	CO5	L2
2-IV	What is mobile ip?	01	CO5	L2
2-V	What is TCP?	01	CO5	L2
3	Explain OSI model in detal. Or Explain TCP/IP Model in Detail.	08	CO5	L3
4-A	(a) Write short notes on: (i) IGMP (ii) Multicast routing (iii) Mobile agent (iv) Foreign agent. Or (b) Explain Mobile TCP in detail.	12	CO6	L4

BL – Bloom's Taxonomy Levels
(1- Remembering, 2- Understanding, 3 – Applying, 4 – Analysing, 5 – Evaluating, 6 - Creating)
CO – Course Outcomes PO – Program Outcomes; PI Code – Performance Indicator Code

Level	Marks
Level1	4
Level2	6
Level3	8
Level4	12
Level5	0
Level6	0
Total	30

CO	Marks
CO1	0
CO2	0
CO3	0
CO4	6
CO5	12
CO6	12
Total	30





Registrar
Invertis University
Bareilly

Dean
Faculty of Engineering & Technology
Invertis University
Bareilly-243123, UP

First Class Test 2022-23

M.TECH(CS)-I Semester

Course/Code: ADVANCED COMPUTER NETWORKS (MCS-103)

Maximum Marks :10; Duration: 30 Minutes

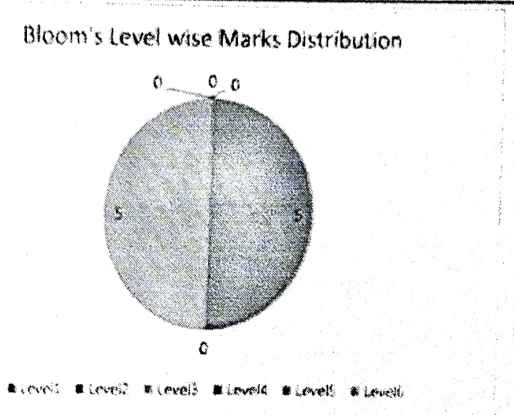
Q.No	Questions	Marks (10)	CO	BL
1	Difference between ARP and RARP	05	CO1	L3
2	To which OSI layer doer RARP belong?	05	CO2	L1

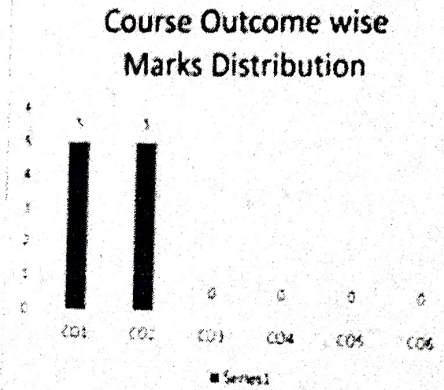
BL – Bloom's Taxonomy Levels

(1- Remembering, 2- Understanding, 3 – Applying, 4 – Analysing, 5 – Evaluating, 6 - Creating)

CO – Course Outcomes PO – Program Outcomes, PI Code – Performance Indicator Code

Level	Marks	CO	Marks
Level1	5	CO1	5
Level2	0	CO2	5
Level3	5	CO3	0
Level4	0	CO4	0
Level5	0	CO5	0
Level6	0	CO6	0
Total	10	Total	10





Head
Department of Computer Science & Engineering
Invertis University
Bareilly-243123, UP

Dean
Faculty of Engineering & Technology
Invertis University
Bareilly-243123, UP

Registrar
Invertis University
Bareilly

Second Class Test 2022-23

M.TECH(CS)-I Semester

Course/Code: ADVANCED COMPUTER NETWORKS (MCS-103)

Maximum Marks :10; Duration: 30 Minutes

Q.No	Questions	Marks (10)	CO	BL
1	Compare and contrast IPv6 and IPv4.	05	CO4	L2
2	A company is granted the site address 201.70.64.0 (class C). The company needs six subnets. Design the subnets	05	CO5	L1

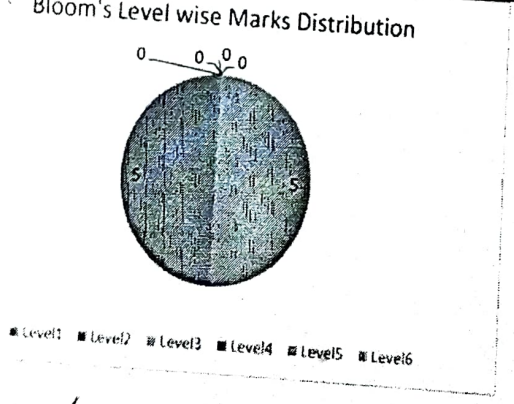
BL – Bloom's Taxonomy Levels

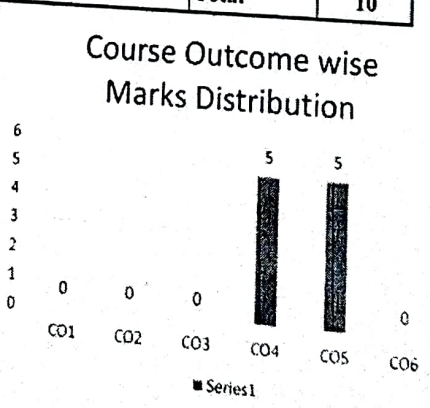
(1- Remembering, 2- Understanding, 3 – Applying, 4 – Analysing, 5 – Evaluating, 6 - Creating)

CO – Course Outcomes PO – Program Outcomes; PI Code – Performance Indicator Code

Level	Marks
Level1	5
Level2	5
Level3	0
Level4	0
Level5	0
Level6	0
Total	10

CO	Marks
CO1	0
CO2	0
CO3	0
CO4	5
CO5	5
CO6	0
Total	10





Head
Department of Computer Science & Engineering
Invertis University
Bareilly-243123, UP

Dean
Faculty of Engineering & Technology
Invertis University
Bareilly-243123, UP

Registrar
Invertis University
Bareilly