

(Approved by AICTE, New Delhi and Affiliated to Anna University, Chennai) Chathirampudukulam, Chidambaranagar - Vepemkulam Road Thatchanallur, Tirunelveli 627 358, Tamil Nadu.

## 6.5.1 Internal Quality Assurance Cell (IQAC) has contributed significantly for institutionalizing the quality assurance strategies and processes

Sl. No.	Description	Page No.
1.	Circular for conduct of IAT	2
2.	Time table of IAT	4
3.	Sample two question paper set of one subject for IAT from the concerned	9
	course instructor	
4.	Sample document for hall duty allotment	11
	for the faculty	
5.	Sample copy for Seating arrangement	15
6.	Samples for grievance redressal	18
	mechanism	
7.	Sample copy of answer key for the	19
	question paper	
8.	Sample copy of mentoring system for the	23
	slow learner student	

## EXAM CELL CIRCULAR

All II and III year students and staff members are informed that Internal Assessment Test (IAT) – 1 will be conducted on 02, 04, 05, 06, 07 and 08 February 2019. Two units will be considered for test. Time table and Hall allotment will be displayed on department notice board.

**Test Timings** 

9.05 AM to 10.35 AM

To be read in all class rooms.

Department	II year	III Year
CIVIL	Sp. privas	SHEET
CSE	Q21119	Detter
EEE	ON/actaly	W. Hotel
ECE	Series 1	122311
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Department	HOD Signature
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CSE	dhilair
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MECH	Osnila.
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THAMIRABHARANI ENGINEERING COLLEGE

Chathirampudukulam Village, Chidambaranagar - Vepemkulam Road, Thatchanallur, Tirunelveli - 627 358.

Principal

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## TEC/EXAM CELL/CIRCULAR/2018-19/16

## EXAM CELL CIRCULAR

HODs are informed to arrange the following for the conduct of IAT.

- They are informed to submit format 1, 2 and 3 (attached with this circular) to college exam cell before 10.30 pm 29.01.19.
- ➤ Requirements like graph sheets, tables, data books, drawing sheets etc.., for the subjects handled by their department staff shall be submitted in written format before 10.30 pm 29.01.19.
- > They are informed to provide two separate question paper for every subject to exam cell before 10.30 pm 29.01.19.
- ➤ HODs should make sure all their department students are present in their respective halls 5 minutes prior to the commencement of examination.
- The invigilators have to be present at exam cell to get question paper and answer sheets 10 minutes prior to the commencement of examination; also they have to be present in their allotted halls 5 minutes prior to the commencement of examination.
- ➤ HODs have to make arrangements to receive the written answer sheets from exam cell in the next session of the IAT being conducted.

Department	HOD Signature
CIVIL	Dim
CSE	any in
EEE	298/1119
ECE	AR 201119
MECH	Wallan
S&H	02/1/195

Exam Coordinator

PRINCIPAL

THAMIRABHARANI ENGINEERING COLLEGE

Chathirampudukulam Village, Chidambaranagar - Vepemkulam Road, Thatchanallur, Tirunelveli - 627 353.

TATIAUG 2018 - Time table Format - J

Department: C.W.

Date	Year	Subject Code Subject Name
		more 353- Trans being and partial Di Pfetential Banata
16/8/18	m	ce bion - Structural Analysis - 2
	IV	126701 - Shalinet Dynamics and Back grake Express
. 1	ıı	CE 8351 - Shinesing
siglar	m	CE 6504 - Highway Enstractly
	n	CE 6702- Prestrand consents
	1	CES361 - ambuetton materials
20/8/18	m	CE 6103 - Enisonmental Engineery - 2
	n	CE 8501 - Shoult Essenies and Ismbelian Expenses
	1	2 Material - 1
21/8/18		CA 6506 - commeter techniques Equipment and Dreak
	N	CE 6704 - Fishingtion and quantity Suneying
23/8/8		CE 83 92 - boffnering heology
	(m.)	le book - Derign & Re Elements
	N	(6 6006 - Traffic Ensineering and Mayssient
24/8/18.	11	ce 8302 - Aluid Mechanics
		CE 6502 - Counde him Engineering
	IV	En 6001 - anunicipal solid waste management

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Chidam aranagar - Vepemkulam Road,
Thatchanallur, Tirunelveli - 627 358.

HOD

EXAM CELL

IAT I AUG 2018 – Time table

Format - 3

Department: CSE

Date	Year	Subject Code - Subject Name
	n	MA8351 - Discrete Mathematics
16/8/18	m	MA6566 - Bistrete' Malhoratics: 150
	W	CS6701 - Cryptography and Network Security
	u	CS8351 - Digital Principles and System Design
18 8 18	m	CS 6 503 - Theory of Computation
	IV	CS6702 - Graph Theory and Applications
	11	CS8392 - Object Oriented Programming
20/8/18	in	156501: - Inhernet - Programming Me
	īv	CS6004 - Cyber Forensics
	ΙĻ	C88391 - Data Structures
21/8/18	II)	CS6504 - Computer Graphics
	IV	CS6703 - Grid and Cloud Computing
	11	
23   8   18	111	CS6502 - Object Oriented Analysis and Des
	IV	CS6704 - Resource Management Techniques
	11	
24/8/8	Ш	
	I.	176005 - Digital Image Processing.

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IAT I AUG 2018 – Time table Format – 3

Department:

F.E.E.

Date	Year	Subject Code - Subject Name
	11	MA 8353- Transform, and Partial Differential Equation
16/8/2018	m	IC 6501 - Control Systems (cs)
	īV	EE 6701 - High Voltage Engineering (HVE)
	п	BC8353-Electronic Defices and clincults (BDC)
18/8/2018	Ш	ME 6701 - Power Plant Engineering (PDE)
	iv	EE 6008 - Micro Controller Based System Design (MBSD)
	n	ME 8792 Power Plant Engineering (PPE)
20/8/2018	m	EE 6502 - Microprocessors and Microcontrollers (MP4 MI)
	IV,	EB 6702 - Protection and Switchgear (PSG)
		EB 8391 - Electromagnetic Theory (EMT)
21/8/2018	ij.	EE 6503 - Hower Electronics (PE)
	(v	EB 6703 - Special Electrical Machines (SEM)
	П	EE 8301 - Electrical Machines - 1 (Em-1)
23/8/2018	m	DEE 6501- Power System Analysis - (PSA)
	IV	Elbook - Flexible Ac Transmission System (FACTS)
	u	EE 8351 - Digital logic cincuits (DHC)
24/8/2018	9 111	
	IV	

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A. Asna muthorosu

EXAM CELL IAT I AUG 2018 – Time table Format - 3

## Department:

Date	Year	Subject Code - Subject Name
	n	MA8352. Linear Algebras Partiel Oithand
a.\8.	m	EC6502 Princips of Digital Signal Pla
1.8.8.	IV	IT6005 Digital image 88.6
	п	IT6005 Disital image PloCalling,  Fundamentals of date Structure in C
\$.8.18	m	Ec6501 Digital Communication
<u></u>	IV -	Ec6703 Embedded & Pealone Sentone
	u /	EC 8352 Sia lie o 1+-0
20.8.18	m,	ELE 6351 Envilonmental Since enement
20	IV.	Ec6701 RESMICIOCNOVERRainering.
	"	EC 8303 Electronic Circuls-II
21.8-18		EC6503 Transmission Lines & wave aux
γ.,	IV.	E6702. OPtical Communications returnes.
	п	EC8395 Digital & Getunia.
23.8.18	ш	EC6504 Micro Placedoe & Micro controller.
05	IV	Echolo OPto Electionic Devices.
.G	п	Ec8393 control System Engineering.
24.8.18		Feets
0	IV	Eclo 007 SPeich Processing.

10/8/18

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EXAM CELL IATTAUG 2018 - Time table

## Department: MECHANICAL

Format - 3

Date	Vear	Subject Code - Subject Name
	u	EE 8363 ELECTRICAL DRIVES AND CONTROL
16-8-18	m	ME 6505 - DYNAMICS OF MACHINERY
A. C.	IV	ME 6701 - POWER PLANT ENGINEERING.
	u	MA8353 - TRANSFORM AND PARTIAL
18-8-18	m	ME 6501 - COMPUTER AIDED DESIGN.
	IV	GE 6757 - TOTAL QUALITY OF MANAGEMENT
	11	CE 8394 - FLUID MECHANICS AND
20-8-15		ME 6502 - HEAT AND MASS TRANSFER.
	IV	ME 6702 - MECHATRONICS.
		ME 8351 - MANUFACTURING TECHNOLOGY_I
21-8-18	111/	NE6504 - METROLOGY AND MEASUREMENTS
	N/	NE6703 - COMPUTER INTEGRATED
		MANUFACTURING SYSTE
3-8-16	III G	166075 - PROFESSIONAL ETHICS ENGINEER
	IV M	E6005 - PROCESS PLANNING AND COST
	п	- ESTIMATION.
4-8-18	(i) M	E 6503 - DESIGN OF MACHINE ELEMENT
	(V) m	E 6012 - MAINTENANCE ENGINEERING

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## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

## **INTERNAL ASSESSMENT TEST-I**

**Date of Exam: 26.08.2019** 

Total Marks: 50 Marks

Subject Code: CS6792

Subject Name: CRYPTOGRAPHY AND NETWORK

**SECURITY** 

Dept. / Year : CSE / IV year

Prepared By: Mr. R. Raja Sekar, AP/CSE

Approved By: HOD/CSE

Q. No.	Part A	8x 2=16
1.	Define data integrity.	R, CO1
2.	"Internet security is very challenging"-justify.	U, CO1
3.	What is the need for traffic padding?	R, CO1
4.	List out the active attacks.	R, CO1
5.	What are the types of cryptanalysis?	R, CO1
6.	What are the known attacks in ciphertext?	A, CO1
7.	Differentiate block cipher and stream cipher.	R, CO2
8.	Perform polynomial multiplication $x^4 + 3x^2 + 1$ and $2x^2 + x$ over GF (2).	U, CO2
	Part B	2 x 13=26
9. A	Explain OSI Security Architecture model with neat diagram.	U, CO1
		(OR)
9. B	What is Monoalphabetic cipher? Examine how it differs from Caesar cipher.	U, CO1
10. A	How counter mode has been stronger than other modes in block cipher?	U, CO2
		(OR)
10. B	How the strength of DES algorithm has been determined?	U, CO2
	Part C	$1 \times 8 = 8$
11	Encrypt the message "this is an exercise" using Caesar cipher with key = 20. Ignore the space between words. Decrypt the message to get the original plaintext.	U, CO1

## Mapping between COs and Questions:

Question Numbers	COs	Total Marks	% Distribution of marks.
1,2,3,4,5,6,9,11	CO1: To understand the basics of network security with threats and classical encryption techniques.	33	66
7,8,10	CO2: To understand the different cryptographic operations of symmetric cryptographic algorithms.	17	34

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BXAM CELL
ANNA UNIVERSITY INTERNAL EXAMINATION - L'EB 2018
INTERNÁL INVIGILATOR ALLOCATION LIST

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			CI	Civil Engineering	ring				
F	A Rajesh	Assistant Professor /CIVIL	1				<b>H</b>	1	
R	J.S. Jebastin Daniel		2	Duty			A	III	
m	P Shanmugapriyan		7				Dutk	1	
-	L.Nithya	Assistant Professor /CIVIL	2			Durk	ā	Pr	
<u>ه</u>	P Senthilkumar	Assistant Professor /CIVIL	2	Duty		Dutz			
ø	P Dhanalakshmi	Assistant Professor /CIVIL	-				A	ä	
۴	P Kamar	Assistant Professor KTVIL	2	Puty				3	4
*	P Sindhuja	Assistant Professor /CIVIL	7		Dutk	56 - 17 - 17	+	Date	
8	V. Tamilarasi	Assistant Professor /CIVIL					Datk		
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Ē	Solai Raja V	Assistant Professor ACSE	-	Dutk					
=	Jeeva R	Assistant Professor /CSE	2	Date			Page		
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Chidambarenagar - Vepenkuit. . 114.
Thatchanallur, Tirunelveli 127 115.

## THAMIRABHARANI ENGINEERING COLLEGE THATCHANALLUR - 627 358.

DEARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING INTERNAL ASSESSMENT TEST - III SEATING ARRANGEMENT

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ASSESSMENT COORDINATOR

HOD/ÉEE

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## DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING THATCHANALLUR - 627 358.

## INTERNAL ASSESSMENT TEST - III SEATING ARRANGEMENT

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## THAMIRABHARANI ENGINEERING COLLEGE THATCHANALLUR - 627 358. AIENT OF ELECTRICAL AND ELECTRONICS ENGINEERING INTERNAL ASSESSMENT TEST - III SEATING ARRANGEMENT

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ASSESSMENT COORDINATOR

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## EXAMCELL APPLICATION FOR EXAM GRIEVANCE Internal Assessment Test – 2

Academic Year	2018-19	Year & Semester	IILCSE 4	<u> </u>	Date	26.9.18
Requirement (Wri	te Yes on the rec	quired fields):				
Revaluation		Retotaling		Qu	estion Griev	ance
Particulars:						
Name	Stiniva	sa Peruma	( . A .			
Register Number		6104035				
Date of Exam	13211	Degree & Branch				
Subject Code	CS6501	Subject Name	Internet	pro	grammi	09
Comments					-	J
(If any)						
Fill below only for	Exam Question	Grievance:				
Question Number	Grievance					
Reference Number	(To be filled by I	Department Exam coor	dinator)& Rema	rks (if ar	ny):	
		2018-19/0				
, IEC	I CSEL.	2018 1/0	UP/ CSL	002	-	
Signature of the Stu	idant		Signature	of the D	epartment Ex	am coordinator
Signature of the Stu	ident					
Action Taken:			HOD Remarks			
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INSTRUCTION TO CANDIDATES

1. Application for Revaluation/Retotaling must be submitted to the Department Exam Coordinator within 24 hours of the publication of respective subject's result.

2. Application for Exam Question Grievance must be submitted to the Department Exam Coordinator within 1 hour of the completionrespective subject's exam.

3. No application will be accepted beyond the time.

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## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

## INTERNAL ASSESSMENT TEST-I- KEY

Date of Exam: 26.08.2019

Total Marks: 50 Marks

Subject Code: CS6792

Subject Name: CRYPTOGRAPHY AND NETWORK

**SECURITY** 

Dept. / Year : CSE / IV year

Prepared By: Mr. R. Raja Sekar, AP/CSE

**Approved By:** HOD/CSE

Q. No.

Part A

8x 2=16

Compare active and passive attack.

U, CO1 Active and Passive Attacks are security attacks. In Active attack, an attacker tries to modify the content of the messages. Whereas in Passive attack, an attacker observes the messages, copy them and may use them for malicious purposes.

- 2. Encrypt the plaintext tobeornottobe using the Vigenere cipher for the key value Now. U, CO1 Ciphertext: gcxrcnacpgcxr
- Calculate the ciphertext for the following one time pad.

U, CO1

Plaintext: ROCK & Kev: BOTS

R = 17 B = 01 17 + 01 = 18 = S

 $O = 14 O = 14 14 + 14 = 28 = 26 \mod 28 = 2 = C$ 

C = 02 T = 19 02 + 19 = 21 = V

 $K = 10 S = 18 10 + 18 = 28 = 26 \mod 28 = 2 = C$ 

Specify the components of encryption algorithm.

R. CO1

Plaintext - original message

Ciphertext - coded message

Cipher - algorithm for transforming plaintext to ciphertext Key - info used in cipher known only to sender/receiver Enciphering (encryption) - converting plaintext to ciphertext

Deciphering (decryption) - recovering ciphertext from plaintext

5. Differentiate threat and attack.

U, CO1

Threat: Possible danger that might exploit a vulnerability.

Attacks: Deliberate attempt to evade security services and violate the security policy of a system.

List the techniques used in steganography.

R, CO1

Character marking

Invisible ink

Pin punctures

9. A

Typewriter correction ribbon

Perform polynomial multiplication  $x^3 + x + 1$  and  $x^2 + x + 1$  over GF (2). 7.  $x^5 + x^4 + 1$ 

U, CO2

8. Find the GCD of (2740, 1760) using Euclid's Algorithm.

U, CO2

2 x 13=26 Classify the security attacks and services in detail. THAMIRABHARANI ENGINEERING COLLERE CO1

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Attacks (OR)

Passive attacks

- Release of message contents
- Traffic analysis

Active attacks

- Masquerade
- Replay
- Modification of messages
- Denial of service

### Services

- Authentication
- Access control
- Data confidentiality
- Data integrity
- Non repudiation
- 9. B Explain the network security model and its important parameters with a neat block diagram.

A message is to be transferred from one party to another across some sort of Internet service. The two parties, who are the principals in this transaction, must cooperate for the exchange to take place.

A logical information channel is established by defining a route through the Internet from source to destination and by the cooperative use of communication protocols (e.g., TCP/IP) by the two principals.

All the techniques for providing security have two components:

- A security-related transformation on the information to be sent.
- Secret information shared by the two parties.
- 10. A Illustrate the structure of DES and describe the steps in encryption process.

U, CO2 (**OR**)

- Encryption
  - Round function
  - S-Box
- 10. B Sketch the scenario for centralized and decentralized key distribution system

U, CO2

- With arbitrary entity
- Without arbitrary entity

Part C

1 x 8=8

Encrypt the following using play fair cipher using the keyword "MONARCHY". "SWARAJ IS MY BIRTH RIGHT". Use X for blank spaces.

U, CO1

Plaintext = swaraj is my birth right

=sw ar aj xi sx my xb ir th xr ig ht

Key = MONARCHY

Ciphertext=qx rm bs as xa nc ai ka pd za ki dp

Plaintext = sw ar ai/j xi/j sx my xb i/jr th xr i/jg ht

=swarai/j is my birth right

=swaraj is my birth right

M	0	N	A	R
С	Н	Y	В	D
Е	F	G	I/J	K
L	P	Q	S	T
U	V	W	X	Z

### Mapping between COs and Questions:

Question Numbers	COs	Total Marks	% Distribution of marks.
1,2,3,4,5,6,9,11	CO1: To understand the basics of network security with threats and classical encryption techniques.	33	66
7,8,10	CO2: To understand the different cryptographic operations of symmetric cryptographic algorithms.	1/29	34



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## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

## INTERNAL ASSESSMENT TEST-I KEY

Date of Exam: 26.08.2019

Total Marks: 50 Marks

Subject Code: CS6792

Subject Name: CRYPTOGRAPHY AND NETWORK

**SECURITY** 

Dept. / Year : CSE / IV year

Prepared By: Mr. R. Raja Sekar, AP/CSE

**Approved By:** HOD/CSE

O. No.

Part A

8x 2=16

1. Define data integrity. R, CO1

When sensitive information is exchanged, the receiver must have the assurance that the message has come intact from the intended sender and is not modified inadvertently or otherwise.

"Internet security is very challenging"-justify.

U, CO1

Security weaknesses are exist in the operating systems of attached computers as well as vulnerabilities in Internet routers and other network devices. It is vulnerable to attacks like denial of service attacks; IP spoofing, in which intruders create packets with false IP addresses and exploit applications that use authentication based on IP.

What is the need for traffic padding?

R, CO1

Traffic padding may be used to hide the traffic pattern, which means to insert dummy traffic into the network and present to the intruder a different traffic pattern. The apparent traffic pattern, which is observed by intruder, is referred to as a cover mode that hides the real operation mode of the system.

List out the active attacks.

R, CO1

- Masquerade
- Replay
- Modification of messages
- Denial of service

5. What are the types of cryptanalysis? R, CO1

- Differential cryptanalysis
- Linear cryptanalysis

What are the known attacks in ciphertext?

A, CO1

- Ciphertext Only Attacks (COA)
- Brute Force Attack (BFA)
- Birthday Attack
- Man in Middle Attack (MIM)

Differentiate block cipher and stream cipher.

R, CO2

Block cipher converts the plain text into cipher text by taking plain text's block at a time. While stream cipher Converts the plain text into cipher text by taking 1 byte of plain text at a time.

Perform polynomial multiplication  $x^4 + 3x^2 + 1$  and  $2x^2 + x$  over GF (2).  $x^5 + x^4 + x^3 + x$ 

U, CO2

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9. A Explain OSI Security Architecture model with neat diagram.

U, CO1 (OR)

- Security Attacks
- Security Services
- Security Mechanisms
- 9. B What is Monoalphabetic cipher? Examine how it differs from Caesar cipher.

U. CO1

The process of mapping from plain alphabet to cipher alphabet using permutation is called Monoalphabetic cipher. A permutation of a finite set of elements S is an ordered sequence of all the elements of S, with each element appearing exactly once. Example with encryption and decryption.

10. A How counter mode has been stronger than other modes in block cipher?

U. CO2

• Electronic Codebook (ECB)

(OR)

- Cipher Block Chaining (CBC)
- Cipher Feedback (CFB)
- Output Feedback (OFB)
- Counter (CTR)
- 10. B How the strength of DES algorithm has been determined?

U, CO2

- The Use of 56-Bit Keys
- The Nature of the DES Algorithm
- A timing attack

Part C

 $1 \times 8 = 8$ 

Encrypt the message "this is an exercise" using Caesar cipher with key = 20. Ignore the U, CO1 space between words. Decrypt the message to get the original plaintext.

$$T - 20 + 20 = 40 - 26 = 14 N$$

$$\mathbf{H} - 8 + 20 = 28 - 26 = 2 \mathbf{B}$$

$$I - 9 + 20 = 29 - 26 = 3$$
 C

$$S - 19 + 20 = 39 - 26 = 13 M$$

$$I - 9 + 20 = 29 - 26 = 03$$
 C

$$S - 19 + 20 = 39 - 26 = 13 M$$

$$A - 0 + 20 = 20 U$$

$$N - 14 + 20 = 34 - 26 = 08 H$$

$$E - 5 + 20 = 25 Y$$

$$X - 24 + 20 = 44 - 26 = 18 R$$

$$\mathbf{E} - 5 + 20 = 25 \; \mathbf{Y}$$

$$\mathbf{R} - 18 + 20 = 38 - 26 = 12 \ \mathbf{L}$$

$$C - 3 + 20 = 23 W$$

$$I - 9 + 20 = 29 - 26 = 03$$
 C

$$S - 19 + 20 = 39 - 26 = 13 M$$

$$E - 5 + 20 = 25 Y$$

Therefore the encoded message is NBCM CM UH YRYLWCMY

## Mapping between COs and Questions:

Question Numbers	COs	Total Marks	% Distribution of marks.
1,2,3,4,5,6,9,11	CO1: To understand the basics of network security with threats and classical encryption techniques.	33	66
7,8,10	CO2: To understand the different cryptographic operations of symmetric cryptographic algorithms.	17	34

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## COUNSELLING INFORMATION (To be filled by the Mentor)

Name of the Student : Kasthig a Davi K.

Year / Semester

: 61.12

Academic Year

:dol8 - 19

Register Number Department

:953116104016

Batch

:2016-20

Particulars	Student's Signature
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Regarding 187 F., her performance has been improved but below the average level. Dahed to get Question bank from	le ber
Suggested her to attend backing day and write the questions & answers for Practice.	b. ber
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## Remarks:

She should attend the slow learner program. Instruct her to practice more, important quentions for be given.

PRINCIPAL

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Chidombaranagar - Vepemkulam Road. That changing, Turinelvell - 93358 ature of the HoD/ Academic Head

Signature of the Mentor

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