

## SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN

(Approved by AICTE, New Delhi and Affiliated to Anna University, Chennai) Kaikkurichi, Pudukkottai -622 303

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## **NAAC DOCUMENTS**



Quality Indicator Frame Work

# Criterion – 1

## CURRICULAR ASPECTS

Submitted by

## IQAC Internal Quality Assurance Cell

Sri Bharathi Engineering College for Women



## SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN

(Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai-25) Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India

Criterion 1 Curricular Aspects 100	Criterion 1	Curricular Aspects	100
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- **1.1 Curricular Planning and Implementation(20)**
- 1.1.1 The Institution ensures effective curriculum planning and delivery through a well-planned and documented process including Academic calendar and conduct of continuous internal Assessment

S.No	Description
1	Preface of the Course File
2	Review of Course File
3	Work Load
4	Course Plan
5	Content Beyond Syllabus
6	Rubrics Based Evaluation
7	Academic Audit Form
8	Student Feed Back on Faculty
9	Internal Assessment Schedule
10	Question Paper
11	Answer Key
12	Co Based Mark Entry
13	Internal Mark Sheet- Anna University Portal
14	Co Po Attainment

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SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN (Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai-25) Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India DEPARTMENT OFCOMPUTER SCIENCE AND ENGINEERING

PREFACE OF THE COURSE FILE

Batch

: 2017-2021

Academic Year

: 2020-2021 / ODD

Program

#### : COMPUTER SCIENCE AND ENGINEERING

Year & Semester

: 4<sup>th</sup> Year / 7<sup>th</sup> Semester

Course Code

: CS8792

NBA Course Code: C402

Name of the Course

: Cryptography and Network Security

Faculty In-charge

: G.Sugapriya, AP/CSE

Signature of the Faculty In-charge

Dr. S.THILAGAVATHI M.E., Ph.D., PRINCIPAL SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN Kaikkurchi - 622 303, Pudukkottai Dt.

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HOD / CSE SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN KAIKKURICHI, PUDUKKOTTAI - 622 303

## SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN

(Approved by AICTE, New Delhi and affiliated to Anna University, Chennai)

#### DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

#### **REVIEW OF COURSE FILE**

(To be pasted on the inner side of the file-backside).(#-State Yes/No.)

S.N	Details Date:	R-I-*	R-II-*&	R-III- *&	R-IV- *&\$	R-V- *&\$@
1.	Preface of the course file	yes				a du qui
2.	Vision, Mission, PEOs, POs, PSOs, Blooms taxonomy	yes	•			
3.	Subject handlers of yesteryears			1999		
4.	Timetable/Workload of the staff – Distribution of teaching load – Roles and Responsibilities	Yes				
5.	Syllabus signed by staff & HoD	yes				
6.	Lecture Schedule signed by staff & HoD	yes				
7.	Course Committee meeting circular and minutes	yes				
8.	Identification of Curricular gap and Content Beyond the syllabus	Yes			- )	-
9.	Self-study topics	yes				
10.	Previous AU Question papers	yes		· · ·	1	
11.	Unit wise Q&A and Objective type questions	yes				
12.	Unit wise course material	yes				
13.	Assignment question paper with sample answer sheets and mark entry	102	yes			
14.	Tutorial question paper with key and mark entry					
15.	Class test/IA test Q Paper with Key, sample answer papers and mark entry		yes		-	
16.	IA Test- result analysis-CAP-evidence-root cause analysis.		yes			
17.	Retest –Q paper-Attendance-marks		yes			
18.	AU Web portal entry sheet		yes			
19.	Very poor performance in first two tests-action takencommunication to parents-evidence		100			
20.	Absence for two tests-action taken-communication to parents-evidence.					
21.	Indiscipline of student reported, if any					
22.	Special class/coaching class/remedial class/attendance-CAP					
23.	Conduct of Seminar, Quizzes - proof		4			
24.	Content beyond the syllabus - proof			yes		
25.	Student feedback on faculty	· · · · · · · · · · · · · · · · · · ·		yes		
26.	Course end survey					
27.	Internal Assessment sheet			Yes		
28.	AU question paper with students feedback			1		
29.	Discrepancy of the question paper and correspondence, if any					
30.	AU result analysis-Details of arrear students.					
31.	AU grade sheet					Yes
32.	CO – PO & PSO attainment sheet					400
1	Signature of Course handling faculty	liti	life	lite		eni
1	Signature of HoD/CSE	~	v			~

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SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN KAIKKURICHI, PUDUKKOTTAI - 622 303

## ACADEMIC YEAR (2020-21) ODD SEMESTER

### **DEPARTMENT OF CSE & IT**

## INDIVIDUAL STAFF WORKLOAD

S. NO	STAFF NAME	SUBJECT CODE & NAME	YEAR & DEPT	NO OF HOURS	TOTAL HOURS
		CS8792- Cloud Computing	IV CSE & IT	05	
1.	1. Ms.P.Subha	EC8552- Computer Architecture and Organization	III ECE	05	13
	IVEAR 02	CS8711-Cloud Computing Laboratory	IV CSE & IT	03	•
	A 180 V	MG8591-Principles of Management	IV CSE	05	
2.	Ms.G.Bhuvaneswari	GE8151- Problem Solving and Python Programming	I YEAR	05	13
	V CSF & 03	GE8161-Problem Solving and Python Programming Laboratory	I YEAR	03	
	11 CSE 03	CS8079-Human Computer Interaction	IV CSE &IT	05	0 8
3.	Ms.S.Jayapratha	CS8501- Theory of Computation	III CSE	05	13
	ULCSE 03	CS8383- Object Oriented Programming Laboratory	II CSE	03	
0		CS8791- Cryptography and Network Security	IV CSE &IT	05	
4.	Ms.G.Sugapriya	CS8391-Data Structures	II CSE	05	13
	LECE DE	CS8381- Data Structures Laboratory	II CSE	03	

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S. NC		SCHEET CODE & NAME	YEAR & DEPT	NO OF HOURS	TOTA
		CS8392-Object Oriented Programming	II CSE	05	noon
5.	Ms.G.Sasikala	CS8392-Object Oriented Programming	III EEE	05	13
	anon T	CS8383- Object Oriented Programming Laboratory	III EEE	03	
	20 TI 23	OCS752-Introduction to C programming	IV EEE	05	
6.	Ms.K.Priyanka	GE8151- Problem Solving and Python Programming	I YEAR	05	13
E@ 11 @3		GE8161-Problem Solving and Python Programming Laboratory	I YEAR	03	15
	28 <u>0</u> 32	IT8075-Software Project Management	IV CSE & IT	05	
7	Mr.R.Vijay	CS8592- Object Oriented Analysis and Design	III CSE	05	13
	<u>50</u>	IT8761- Security Laboratory	IV CSE & IT	03	
		CS8591- Computer Networks	III CSE	05	
	Mrs.A.Nushrath Fathima	EC8702-Ad hoc and Wireless Sensor Networks	IV ECE	05	13
		CS8581- Networks Laboratory	III CSE	03	
;	Ms.K.Priya	EC8393-Fundamentals of Data Structures In C	II ECE	05	
-	ATT 05	EC8381- Fundamentals of Data Structures in C Laboratory	II ECE	03	08
		EC8551- Communication Networks	III ECE	05	
I	Mrs.V.Yogam	EC8563- Communication Networks Laboratory	III ECE	03	11
		CS8582- Object Oriented Analysis and Design Laboratory	III CSE	03	

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PRINCIPAL

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#### SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN (Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai-25) KAIKKURUCHI, PUDUKKOTTAI. DEPARTMENT OF COMPUTER SCIENCE AND ENGINEEERING

#### **COURSE PLAN**

Subject code		Branch/Year/Sem/S	ection: B.E CSE/IV/VII
Subject Nam	e: Cryptography and Network Security	Batch	: 2017-2021
Staff Name	: G.Sugapriya, AP/CSE	Academic year	: 2020-2021

#### **COURSE OBJECTIVES**

- To understand Cryptography Theories, Algorithms and Systems.
- To understand necessary Approaches and Techniques to build protectionmechanisms in order to secure computer networks.

#### **TEXTBOOKS:**

T1. William Stallings, Cryptography and Network Security: Principles and Practice, PHI3rd Edition, 2006.

#### **REFERENCES:**

- **R1.** C K Shyamala, N Harini and Dr. T R Padmanabhan: Cryptography and NetworkSecurity, Wiley India Pvt.Ltd
- R2. BehrouzA.Foruzan, Cryptography and Network Security, Tata McGraw Hill 2007.
- R3. Charlie Kaufman, Radia Perlman, and Mike Speciner, Network Security: PRIVATE

#### WEB SOURCES:

- W1. https://cns.edu
- W2. https://justcryptography.com > rsa-algorithm
- W3. https://www.softwaretestinghelp.com > aes-encryption-algorithm
- W4. www.educba.com/des-algorithm/

#### **TEACHING METHODOLOGIES:**

- BB BLACK BOARD
- PPT POWER POINT PRESENTATION
- > VIDEO

A

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SBECW/CSE/IV YEAR/COURSE PLAN/CS8792 - CNS

#### CRYPTOGRAPHY AND NETWORK SECURITY

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#### UNIT I INTRODUCTION

Security trends - Legal, Ethical and Professional Aspects of Security, Need for Security at Multiple levels, Security Policies - Model of network security – Security attacks, services and mechanisms – OSI security architecture – Classical encryption techniques: substitution techniques, transposition techniques, steganography-Foundations of modern cryptography: perfect security – information theory – product cryptosystem – cryptanalysis.

#### UNIT II SYMMETRIC KEY CRYPTOGRAPHY

Mathematics Of Symmetric Key Cryptography: Algebraic structures - Modular arithmetic-Euclid"s algorithm- Congruence and matrices - Groups, Rings, Fields-Finite fields- Symmetric Key Ciphers: SDES – Block cipher Principles of DES – Strength of DES – Differential and linear cryptanalysis - Block cipher design principles – Block cipher mode of operation – Evaluation criteria for AES – Advanced Encryption Standard - RC4 – Key distribution.

#### UNIT III PUBLIC KEY CRYPTOGRAPHY

MATHEMATICS OF ASYMMETRIC KEY CRYPTOGRAPHY: Primes – Primality Testing – Factorization – Euler's totient function, Fermat's and Euler's Theorem - Chinese Remainder Theorem – Exponentiation and logarithm -ASYMMETRIC KEY CIPHERS: RSA cryptosystem – Key distribution – Key management – Diffie Hellman key exchange - ElGamal cryptosystem – Elliptic curve arithmetic-Elliptic curve cryptography.

#### UNIT IV MESSAGE AUTHENTICATION AND INTEGRITY

Authentication requirement – Authentication function – MAC – Hash function – Security of hash function and MAC – SHA –Digital signature and authentication protocols – DSS- Entity Authentication: Biometrics, Passwords, Challenge Response protocols- Authentication applications - Kerberos, X.509

#### UNIT V SECURITY PRACTICE AND SYSTEM SECURITY Electronic Mail security – PGP, S/MIME – IP security – Web Security -SYSTEM SECURITY: Intruders – Malicious software – viruses – Firewalls. TOTAL:45 P ERIODS

Signature of the Faculty in-charge

Dr. S.THILAGAVATHI M.E., Ph.D., PUDUKKOTTAI - 6229303 2 of 6

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#### SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN KAIKKURUCHI, PUDUKKOTTAI DEPARTMENT OF INFORMATION TECHNOLOGY

• ( • I	ING OUTCOME: ad of unit, the students will be able to Concept of Number theory Fundamental ideas of symmetric key crypto Distribution of keys			. smzl(, siųs		
JNIT -	III PUBLIC KEY C	RYPTO	GRAPHY			(9)
1.	Primes – Primality Testing – Factorization	T1	236 – 238 & 243-244	BB	1	19
2.	Euler's totient function, Fermat's and Euler's Theorem	T1	239 - 242	BB	1	20
3.	Chinese Remainder Theorem — Exponentiation and logarithm	T1	245 -251	BB	1	21
4.	Principles of cryptosystem -RSA cryptosystem	T1	259 - 277	BB	1	22
5.	Key distribution	T1	211-219	BB		23
6.	Key management	T1	286-292	BB	1	24
7.	Diffie Hellman key exchange	T1	293-296	BB	1	25
8.	ElGamal cryptosystem	R2	286-289	BB	1	26
9.	Elliptic curve arithmetic- Elliptic curve cryptography.	T1	297-307	BB		27
10.	Authentication schemes to simulate Network security tool using Firewalls.	W1	ot alg -	BB	a odi , timi to oni si 1 ono to trace	28
At the e	<ul> <li>NING OUTCOME:</li> <li>end of unit, the students will be able to</li> <li>Understand the how to identify Prime</li> <li>About RSA Encryption</li> <li>In detail about key distribution, manage</li> </ul>	ement &	exchange, ECC	shippilit aroun	Four fields areas Four fields a Groups, Rung Modular arch	
JNIT –		mentic	ATION AND	INTEGRITY	(approprietation)	(9)
1.	IV         MESSAGE AUT           Authentication requirement –         Authentication function	T1	312- 323	BB	1	<b>(9)</b> 29
<u>S</u> F	Authentication requirement –		T	Guerret Safet av 1/44	1	1
1.	Authentication requirement –         Authentication function         MAC         Hash function	T1	312- 323	BB BB &	<u>odno</u>	29
1. 2.	Authentication requirement – Authentication function MAC	T1 T1	312- 323 324-326	BB BB & VIDEO	1	29 30
1. 2. 3.	Authentication requirement –         Authentication function         MAC         Hash function	T1 T1 T1	312- 323 324-326 328-334	BB BB & VIDEO BB/PPT	1	29 30 31

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#### SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN KAIKKURUCHI, PUDUKKOTTAI DEPARTMENT OF INFORMATION TECHNOLOGY

Topic No	Topic Name	Books For reference	Page No	Teaching Methodology	No of periods required	Cumulative periods
UNIT I	1	INTRODU	CTION		of Yo, e.e. beap	(9)
- 1.	Security trends	T1	39-49	BB	1	1
2.	Legal, Ethical and Professional Aspects of Security, Need for Security at Multiple levels, Security Policies	T1	33-39	BB		2
3.	Model of network security, Security attacks, services and mechanisms	T1	55-77	BB		3
4.	OSI security architecture	T1	77-83	BB	2	5
5.	Classical encryption techniques: substitution techniques, transposition techniques, steganography	T1	140-146	BB/PPT	1	6
6.	Foundations of modern cryptography: perfect security	T1	132-140	BB/PPT		7
7.	Information theory	T1	146-153	BB		8
8.	Product cryptosystem, Cryptanalysis.	T1	272-278	BB	ano lugitt	9
<ul> <li>Ba</li> <li>Co</li> </ul>	d of unit, the students will be able to asics of the information security. oncept of Information theory. lecessary of cryptanalysis.	11/2		bis achemes to hww.secinity newsils	n hormstaar 1944 - Jackstein 1955 - Jackstein Jool 1956 - Jackstein Jool	.01
UNIT I	I SYMMETRIC	C KEY CRY	PTOGRAP	РНҮ		(9)
1.	Finite fields and number theory: Groups, Ring, Fields, Finite Fields	T1	140-146	BB	Abor RS	10
2.	Modular arithmetic – Euclids algorithm	T1	132-140	BB	1	11
3.	Congruence and matrices	T1	141-147	BB& VIDEO	ana 1 ana n	12
4.	SDES	T1	92-120	BB/PPT		13
5.	Block cipher Differential and linear cryptanalysis - Block cipher design principles – Block cipher mode of operation	T1	222-238	BB/PPT	1.5	14.5
6.	Advanced Encryption Standard	T1	171-202	BB/PPT	1.5	16
7.	Triple DES	T1	217-226	BB/PPT	1	17
8.	RC4, Key distribution	R2	401-414	BB	elo1 mar	18

SECURITY	PRACTIC	CE AND SYST	TEM SECURITY		(9)
Electronic Mail security	R2	429-431	BB	14.14.950	38
PGP, S/MIME	R2	432-459	BB	2	40
IP security	R2	500-531	BB	1	41
Web security	T1	527 - 559	BB	2	43
Intruders	T1	566 - 580	BB	1	44
Viruses	T1	598 - 612	BB	1	45
Firewalls	T1	616 - 632	BB	1	46
	Electronic Mail security PGP, S/MIME IP security Web security Intruders Viruses	Electronic Mail securityR2PGP, S/MIMER2IP securityR2Web securityT1IntrudersT1VirusesT1FirewallsT1	Electronic Mail security       R2       429-431         PGP, S/MIME       R2       432-459         IP security       R2       500-531         Web security       T1       527 - 559         Intruders       T1       566 - 580         Viruses       T1       598 - 612         Firewalls       T1       598 - 612	Electronic Mail securityR2429-431BBPGP, S/MIMER2432-459BBIP securityR2500-531BBWeb securityT1527 - 559BBIntrudersT1566 - 580BBVirusesT1598 - 612BB	R2       429-431       BB       1         PGP, S/MIME       R2       432-459       BB       2         IP security       R2       500-531       BB       1         Web security       T1       527 - 559       BB       2         Intruders       T1       566 - 580       BB       1         Viruses       T1       598 - 612       BB       1

#### LEARNING OUTCOME:

At the end of unit, the students will be able to

- Understand the security about e-mail, PGP, IP, Web
- About Intruders, Viruses, Firewalls

#### **COURSE OUTCOMES:**

#### At the end of the course, the student should be able to:

- Understand the fundamentals of networks security, security architecture, threats and vulnerabilities.
- Apply the different cryptographic operations of symmetric cryptographic algorithms.
- Apply the different cryptographic operations of public key cryptography.
- Gain Knowledge about the Asymmetric Key Ciphers.
- Apply the various Authentication schemes to simulate different applications.
- Understand various Security practices and System security standards.

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#### INTERNAL ASSESSMENT DETAILS

Ι	II	III
1,2	3,4	5
	I 1,2	I         II           1,2         3,4

#### ASSIGNMENT DETAILS

ASSIGNMENT NUMBER	I	II
Date of Submission	30.08.2021	29.09.2021

ASSIGNMENT NUMBER	DESCRIPTIVE QUESTIONS/TOPIC (Minimum of 8 Pages)
I	<ol> <li>Substitution Techniques.</li> <li>Block diagram for DES, Block Cipher Mode of Operation</li> </ol>
II	<ol> <li>RSA cryptosystem and its problems</li> <li>Diffie Hellman key exchange and its problems</li> </ol>

PRÉPARED BY G.SUGAPRIYA, AP/CSE

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20 81 0 VERIFIED BY

HoD/CSE HOD / CSE SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN KAIKKURICHI, PUDUKKOTTAI - 622 303

APPROVED BY

PRINCIPAL PRINCIPAL SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN KAIKKURICHI - 622 303. PUDUKKOTTAI DISTRICT

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

## Identification of Curricular Gap & Content Beyond Syllabus(CBS)

Name of the Faculty :

Course Code & Name: CS8792 CRYPTOGRAPHY AND NETWORK SECURITY Degree & Program :B.E. /CSE Semester: VII Academic Year: 2020 -2021 /ODD

### I.Mapping of Course Outcomes with POs & PSOs.( before CBS)

Table.1 N	Tappi	ng or	CUS,	, C, P	SUS W	vitn P	US - 1	Defor	есв	ð.		Concernance in the		1.	
CO/PSO	PO	PO	PO	PO	PO	PO	PO	PO	PO	РО	PO	PO	PSO	PSO	PSO
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
C402.1	2	1	1	-	-	-	-	-	-	-	-		3	2	-
C402.2	2	1	1		1	-	-	-	-	-	-'	-	3	2	-
C402.3	3	2	2	1	1	-	-	-	-	-	-	-	2	3	-
C402.4	3	2	2	4	-	-	-	-	-	-	-		2	3	-
C402.5	3	2	2	-	3	-	-	-	· _ ·	-	-		2	2	-
C402.6	3	2	2	1	3	- -	-	-	-	-	-	-	2	2	-
CS8792	2	1	1	19734	2	-	-	-	-	-	-	-	3	2	-

#### II. Identification of content beyond syllabus. Table.2 Identification of content beyond syllabus

Details of Content Beyond Syllabus(CBS) added	POs strengthened/ vacant filled	CO/Unit
Authentication schemes to simulate Network security tool using Firewalls.	PO5(1) Vacant filled	C402.4/ IV

#### III. Mapping of Course Outcomes with POs & PSOs. (After CBS) Table.3 Mapping of COs, C, PSOs with POs- after CBS.

CO/PSO	PO	PO	PO	PO	РО	PO	PO	PO	PO	РО	PO	PO	PSO	PSO	PSO
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
C402.1	2	1	1	-	-	-	-	· -	-	-	-	-	3	2	-
C402.2	2	1	1	-	1	-	-	-	-	-	-	-	3	2	-
C402.3	3	2	2	1	1	-	-	-	-	-	-	-	2	3	-
C402.4	3	2	2	1	*1	-	-	-	-	-	-	-	2	3	-
C402.5	3	2	2	-	3	-	-	-	-				2	2	-
C402.6	3	2	2	1	3	-	-	-	-	-	-	-	2	2	-
CS8792	2	1	1	-	2	-	-	-	-	-	-		3	2	-

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### TOPICS BEYOND THE SYLLABUS

Authentication schemes to simulate Network security tool using Firewalls.

## **REASON BEYOND THE SELEECTION**

Facilitate the students to be aware of Network security simulation tool using Firewalls.

#### **REFERENCE LINK**

https://www.researchgate.net/publication/38112085 Network Security Using Firewalls/lin k/0ffc26910cf24b07a41e757b/download

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## **Assignment Answer Paper**

Name of the Student : BAVANI V

AU Register Number: 912617104003

	Assignment	- 01	Date of Issue:	27.08.2020	Marks	10
Course code CS8792 Course Title Cryptography and network security						
Year	IV	Semester	VII	Date of Submission:	29.08.	2020

Q.No	Answers	CO
1.	<ol> <li>Describe about Substitution Techniques.</li> <li>Explain in detail about DES represent in , Block Cipher Mode of Operation</li> </ol>	C402.2

#### Mark Allocation

Rubrics	Marks Allocated	Marks obtained
Content Quality	6	6
Presentation Quality	2	1
Timely submission	2	2
Total marks	10	9

SIGNATURE OF THE FACULTY IN-CHARGE

Dr. S.THILAGAVATHI M.E., Ph.D. PRINCIPAL SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN Kaikkurchi - 622 303, Pudukkottai Dt.

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	HOPE	· ·			C Acader							
			ACADI		YEAR: 202		ODI		AES7	ΓER		
Nan	ne of Departr	ment :	CSE	Year	/Sem :	IV / VI	II	No. of	Stud	ents Re	gistered :	21
Deta	ils of Exami	ination :	CT - 1 /	CT - 2	/ CT - 3 / M	odel Test						
S.No.	Course Code		List of Reg.No Verified		Course Log Book Verified (Y / N)	Course File Verified (Y / N)	No of students Attended	No of Absentees	No of Failures	Pass %		
4.	MG8591	912617104003			Yes	Yes	21	NIL	MIL	100%	-	
2.	CS8 792	912617104005		Yes	Yes	21	NiL	Ni	1001/	-		
3.	C38791	912617104011		Yes	Ves	21	ML	NTL	100%	-		
4.	DEC374	912	617104	018	Yes	Yey	21	MIL	NIL	100%		
5.	C \$ 8081	912617104303		Yes	Yes	21	NIL	NIL	100%			
6.	GE8074	9126	171040	DJ	Yes	Yes	2)	Nil	NîL	100%	F	× .
-	·		· · ·		Veri	fied by			1		0	
Ext	ernal Membe	er Name a	and Signat	ture:	J.SAT	HIYF	ARA	- Ci	5	f.(	Jui -	
	ernal Membe	er Name a	and Signat	ure:	G. 800	GAPRE	Eyr	F	J	ul	E	
	un remains.				2	,			(			
	HoDCS	E		IQ	AC Coordinat		N	h ?	5		Principat	AND
					S	<b>THILA</b> F RI BHARA COLLEC aikkurchi - 6	RINC ATHIE GE FC	CIPAL Engin Dr Wc	EERI	Ph.D., NG		1



## SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN

(Approved by AICTE, Affiliated to Anna University, Chennai, India) Kaikkurichi, Pudukkottai – 622 303 DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

#### STUDENT FEEDBACK ON FACULTY

S.NO.	DESCRIPTION	SCORED OUT OF 4	SCORED OUT OF 100
1.	Syllabus coverage as prescribed by university	3.76	94.1
2.	Technical knowledge of the teacher	3.71	92.8
3.	Teacher's communication skill	3.62	90.4
4.	Regularity in taking classes	3.57	89.2
5.	Helping the students in conducting the experiment through set of instruction and demonstrations	3.71	92.8
6.	Tendency of inviting opinion and question on subject matter from students	3.67	92.6
7.	Knowledge of the Teacher in latest development of field	3.67	92.6
8.	Perfectness of valuation	3.71	92.8
OVE	RALL SCORE	3.68	92.16

Dr. S.THILAGAVATHI M.E.Ph.D., PRINCIPAL

SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN Kaikkurchi - 622 303, Pudukkottai Dt.

## SION 3D3 1100 DM 9 REPORT SHEET

		W GWEN	0.5	0.2	02	01	Q5	Q6	Q7	Q8
S.NO	REG.NO	NAME	-		Q3 4	Q4	3	4	4	4
1.	912617104001	ADAIKKALAJAYASRI J	4	4	4					
2.	912617104002	AKILA S	4	3	4	3	4	4	3	4
	912617104003	BAVANI V	4	4	3	3	4	4	4	3
3.	912617104005	INDUMATHI S	3	3	4	4	3	4	3	4
4.					4	. 4	4	4	4	4
5.	912617104006	KARTHIKA S	4	4	4				Or it	
6.	912617104007	KAYATHRI K	4	3	4	3	3	3	3	3
<u>}</u>	912617104008	MULLAIYARASI R	3	4	4	4	4	3	4	4
7.	912617104009	NISHADEVI G	4	3	4	4	3	3	4	4
8.	7	PARAMESHWARI S	4	4	4	3	4	4	4 .	4
9.	912617104010			4	4	4	3	4	4	4
10.	912617104011	PERIYANAYAGI M	4	4	4					
11.	912617104012	PRIYADARSHINI S	3	4	4	4	4	3	3	4
12.	912617104013	PRIYADHARSHINI C	4	4	3	4	4	4	4	4
	912617104014	PRIYATHARSHINI V	4	4	3	3	3	4	4	3
13.	bl	RIZWANA PARVEEN Z	3	3	4	4	4	3	3	4
14.	912617104015			noit		4	4	4	4	4
15.	912617104017	SEETHALAKSHMI S	4	4	4	BICT	12.1	18.41	170	
16.	912617104018	VAHINI D	4	4	4	3	4	4	4	4
17.	912617104019	VINOTHA P	4	3	3	4	4	4	3	3
	912617104301	JAYA PREETHA C	4	4	4	3	4	3	3	4
18.		RAJA LAKSHMI R	4	4	3	4	4	4	4	3
19.	912617104302	- RINDIPAL	a un un	3		1	4	4	4	4
20.	912617104303	SANGEETHA S	4	4	3	4				
21.	912617104701	NAVINA N	3	4	4	3	4	3	4	3
		AVERAGE	3.76	3.71	3.62	3.57	3.71	3.67	3.67	3.71
		PERCENTAGE	94.1	92.8	90.4	89.2	92.8	91.6	91.6	92.8
		TERCENTROL					5		1.	

FACULTY INCHARGE

SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN KAIKKURICHI, PUDUKKOTTAI - 622 303 1

\*

Dr. S.THILAGAVATHI M.E., Ph.D), PRINCIPAL SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN Kaikkurchi - 622 303, Pudukkoitai Dt.

## SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN KAIKKI RICHI, PUDUKKOTTAI - 622 303.

#### Circular

Date: 17.09.2020

The second cycle test will be conducted through online from 24.09.2020 to 26.09.2020 for the HI semester(II Year) and V Semester (III year) and VII semester(IV Year) students .

The following instructions are to be followed by the faculty members.

- Total marks for which the question paper to be set will be for 60 marks.
- It is the responsibility of the question paper to be setter to crete online Google form /multiple Choice Questions (MCQ) and forward the link to the exam coordinators Mr.J.Sathyaraj, AP/EEE Mrs.G.Bhvaneswari, AP/CSE on or before 21.09.2020.
- Question Pattern-Part A-30 Single mark MCQ questions and Part B-15 two mark MCQ questions.
- All Staff members are requested to enble the shuffle question order option and limit to one response option in Google form settings.
- The exam coordinators (exam cell) are requested to make necessary arrangements for conducting the test.
- Faculty members are requested to take the report on Google forms and give the marks to the students on or before 28.09.2020.

PRINCI 1210512

Cc:

2343444

- All faculty
- Exam cell
- Office file

Dr. S.THILAGAVATHI M.E., Ph.D., PRINCIPAL SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN Kaikkurchi - 622 303, Pudukkottai Dt. SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN KAIKKURICHI, PUDUKKOTTAI - 622 303. Date: 17.09.2020

The second cycle test will be conducted through online from 24.09.2020

to 26.09.2020 for the VII semester (IV Year) students for 60 marks as per the timetable given below. Students are directed to prepare well and score good marks.

		11 20 011	02.00 pm – 03.30pm CE8702- Railways, Airports, Docks CE8702- Lour Engineering (CIVIL)
Date	10.00	0 am - 11.30 am	CE8702- Railways, Anportant and Harbour Engineering (CIVIL)
24.09.21	CE8 Valu IT8 Ma EC En EF C C C C C C C C C C C C C C C C C C	<ul> <li>am – 11.30 am</li> <li>701-Estimation,Costing and</li> <li>701-Estimation,Costing and</li> <li>701-Estimation,Costing and</li> <li>701-Estimation,Costing and</li> <li>705-Software Project</li> <li>703-Software Project</li> <li>701-Antennas and Microwave</li> <li>8701-Antennas and Microwave</li> <li>gineering (ECE)</li> <li>8702-Power System Operation and</li> <li>28703-Structural Design and</li> <li>28703-Structural Design and</li> <li>28792- Cloud Computing (CSE/IT)</li> <li>28792- Cloud Computing (CSE/IT)</li> <li>28792- Cloud Computing (CSE/IT)</li> <li>20CS752-Introduction to C</li> <li>Programming (ECE/EEE)</li> <li>EN8591-Municipal Solid Waste</li> <li>et (CIVIL)</li> </ul>	CS8791-Cryptogram Security (CSE/IT) GE8071-Disaster Management (ECE) EE8701-High Voltage Engineering(EEE) MG8591- Principles of Management (CSE/IT)
26	.09.2020	EN8591-Multicip Management (CIVIL) OCE754-Medical Electronics (CSE/IT) EC8751-Optical Communication (ECE) EE8703-Renewable Energy Systems(EEE)	EC8702-Adhoc and And Networks (ECE) EI8075-Fibre Optics and Laser Instrumentation(EEE) CS8079-Human Computer Interaction(CSE/IT)

171-51 PRINCIPAL

Dr. S.THILAGAVATHI ME, Ph.D., PRINCIPAL SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN Kaikkurchi - 622 303, Pudukkottai Dt.

All IV year B.E Classes Cc:

- All faculty
- Exam cell Notice Board
- Office file
- •



#### SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN (Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai-25) KAIKKURICHI, PUDUKKOTTAI- 622 303.

#### DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING ACADAMIC YEAR -ODD SEM (2020-2021) CS8792 CYPTOGRAPHY AND NETWORK SECURITY CYCLE TEST-II PART A(30\*1=30)

SL.NO	QUESTIONS	COURSE OUTCOME
1.	What is the general equation for elliptic curve systems?	0010000
	a) y3+b_1 xy+b_2 y=x33+a 1 x2+a 2 x+a 3	
	b) $y_3+b_1 x+b_2 y=x_2+a_1 x_2+a_2 x+a_3$	
		C402.3
	c) $y_{2+b_1} x_{y+b_2} y_{=x_3+a_1} x_{2+a_2}$	
	d) y2+b_1 xy+b_2 y=x3+a_1 x2+a_2 x+a_3	
2.	. In Singular elliptic curve, the equation x^3+ax+b=0 does roots.	
C102.	a) does not have three distinct	
	b) has three distinct	C402.3
	c) has three unique	
	d) has three distinct unique	
3.	How many real and imaginary roots does the equation $y^2=x^3-1$ have	1
	a) 2 real, 1 imaginary	
	b) all real	
1000	c) all imaginary	C402.3
	d) 2 imaginary, 1 real	
	u) 2 magmary, 1 tear	
4.	. How many real and imaginary roots does the equation $y_2=x_3-4x$ have	
	a) 2 real, 1 imaginary	
	b) all real	
	c) all imaginary	C402.3
	d) 2 imaginary, 1 real	
	a) 2 magmary, 1 iour	
5.	In the elliptic curve group defined by $y_2 = x_3 - 17x + 16$ over real numbers,	
	what is $P + Q$ if $P = (0,-4)$ and $Q = (1, 0)$ ?	
	a) (15, -56)	
	b) (-23, -43)	C402.3
	c) (69, 26)	0.010
	d) (12, -86)	
	u) (12, -00)	
6.	In the elliptic curve group defined by $y_2 = x_3 - 17x + 16$ over real numbers,	
	what is $2P$ if $P = (4, 3.464)$ ?	
	a) (12.022, -39.362)	
	b) (32.022, 42.249)	C402.3
	c) (11.694, -43.723)	
040	d) (43.022, 39.362)	
	, , _, _, _, _,	
7.	Elliptic curve cryptography follows the associative property."	1
(mais)	a) True	C402.3
	b) False	

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8.	. "In ECC, the inverse of point $P = (x1, y1)$ is $Q = (-x1, y1)$ ." a) True	C402.3
	b) False	States and P.
9.	On adding the two points P (4,2) and Q (10, 6) in the elliptic curve	
	E11(1,1) we get	
	a) (9,3)	C 402 2
	b) (6,4)	C402.3
	c) (7,5)	
10	d) (2,8) If $P = (1,4)$ in the elliptic curve E13(1, 1), then 4P is	1 SEAO I
10.		
	a) (4, 2)	
	b) (7, 0)	C402.3
	c) (5, 1)	
	d) (8, 1)	
11.	Multiply the point P=(8, 1) by a constant 3, thus find 3P, in the elliptic	<u>×</u>
	curve E13(1, 1)	
	a) (10,7)	
	b) (12,6)	C402.3
	c) (11,1)	
	d) (9,8)	
12.	Bob selects E67(2, 3) as the elliptic curve over $GF(p)$ . He selects $e_1 = (2, $	1 8
12.	22) and $d = 4$ .	
	Then he calculates $e^2 = d \times e^1$ . What is the value of $e^2?$	
	a) (23,49)	C402.3
	b) (16,55)	
	c) (12,19)	
	d) (13,45)	
13.	Bob selects E67(2, 3) as the elliptic curve over $GF(p)$ . He selects $e_1 = (2, $	8
15.		
	22) and $d = 4$ . Then he calculates $e^2 = d \times e^1$ and the publicly announces the tuple (E,	
	Then he calculates $e_2 - d \times e_1$ and the provincy announces the taple (E,	
	e1, e2). Now, Alice wants to send the plaintext $P = (24, 26)$ to Bob and	
	she selects $r = 2$ . What are C1 and C2?	C402.3
	a) $C1=(35,1)$ ; $C2=(21,44)$	
	b) C1=(44,21); C2 =(1,35)	
	c) C1=(44,21) ; C2 =(44,21)	
	d) C1=(21,44); C2 =(35,1)	
14.	$P = C1 - (d \times C2)$	
11.	Is this above stated formula true with respect to ECC?	
	a) True	C402.3
	b) False	
	(12.02239.362)	
15.	. For the point P (11, 2) defined in the curve E13(1, 1). What is –P?	
	a) (12,4)	G 100 0
	b) (10,7)	C402.3
	c) (11,11)	
	d) (11,12)	
16.	For the point P $(7, 0)$ defined in the curve E13 $(1, 1)$ . What is $-P$ ?	C402.3
	a) (7,1)	C-TU4.J

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SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN

	b) (8,12)	
	c) (8,1)	100 Percent
	d) (7,0)	141
Section .	and the commission of the second s	AN .
17.	Public key encryption/decryption is not preferred because	
	a) it is slow	K
	b) it is hardware/software intensive	C402.3
	c) it has a high computational load	<u>9 36 0</u>
	d) all of the mentioned	
18.	. Which one of the following is not a public key distribution means?	d.
	a) Public-Key Certificates	
	b) Hashing Certificates	C402.3
	c) Publicly available directories	
	d) Public-Key authority	1
19.	What is the PGP stand for?	
	a) Permuted Gap Permission	
	b) Permuted Great Privacy	C402.3
	c) Pretty Good Permission	C-102.5
	d) None of the mentioned	
20.	PGP makes use of which cryptographic algorithm?	A 08
20.	a) DES	
	b) AES	
	c) RSA	C402.3
	d) Rabin	a
	d) Rabili	3
21.	LISENET is related to which of the following Dublic Var distribution	
21.	USENET is related to which of the following Public Key distribution schemes?	
	a) Public-Key Certificates	
	b) Public announcements	C402.4
	c) Publicly available directories	
	d) Public-Key authority	
22.	Which of the following public key distribution systems is most secure?	#
22.	a) Public-Key Certificates	
C403	b) Public announcements	G 100 1
		C402.4
	c) Publicly available directories	
00	d) Public-Key authority	
23.	Which systems use a timestamp?	
	i) Public-Key Certificates	
	ii) Public announcements	
	iii) Publicly available directories	
	iv) Public-Key authority	C402.4
	a) i) and ii)	0102.1
and	b) iii) and iv)	· ·
	c) i) and iv)	
	d) iv) only	
	STREET BURNER BURNER	
24.	Which of these systems use timestamps as an expiration date?	
	a) Public-Key Certificates	
	b) Public announcements	C402.4
	c) Publicly available directories	
04.3		
C40	d) Public-Key authority	

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		(A.B. (4)	
25.	Which system uses a trusted third party interface?	(1.8)(7)	
	a) Public-Key Certificates	$(0, \mathbb{S})(\mathbb{A})$	
	b) Public announcements		C402.4
	c) Publicly available directories	Public key energy	CIUMII
	d) Public-Key authority	a) it is slow	
	security and the security of t	b) d, is hardware	· · · · · · · · · · · · · · · · · · ·
26.	Publicly Available directory is more secure than which other	system?	
	a) Public-Key Certificates	non official b	
	b) Public announcements	thich one of t	C402.4
	c) Public-Key authority	(a) Patrice Key (a)	
	d) None of the mentioned	(b) Hashing Certi	
	a la socia de l	linvs yladdud (o)	
27.	The registers 'a' and 'e' involve	in to y-bundly (p)	
	a) Permutation and substitution both	What is the PGP	
	b) Only Permutation	a) Permuted Gap	C402.4
	c) Only substitution	b Premuea Gre	
	d) Don't undergo any operations	CPPretty Good P	
28.	Among the registers 'a' to 'h' how many involve permutation	n in each	20.
	round?	a) D£8	
	a) 4	b) AES	C402.4
	b) 5	C) RSA	010211
	c) 6	d Rabin	
	d) 3		
29.	What does the figure represent?	C SRNET is relat	
	a) Compression function	subones?	~
	b) Message digest generation using SHA	a Public-Key Co	C402.4
	c) Elementary SHA operation for single round	b Public announ	
	d) Processing of a single 1024 bit block	C Publicly avail	
30.	The output of the N 1024-bit blocks from the Nth stage is	d Publickey an	
	a) 512 bits	hit hich of the foll	
	b) 1024 bits	a Publickey Ca	C402.4
	c) N x 1024bits	b Public amoun	
	d) N x 512 bits	c Publicly avail.	
	Zinodi	d illustration Key an	

#### PART B(15\*2=30)

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	a) 64 b) 128	
	c) 512	
	d) 256	
33.	In SHA-512, the registers 'a' to 'h' are obtained by taking the first 64 bits	
	of the fractional parts of the cube roots of the first 8 prime numbers.	
	a) True	C402.5
	b) False	
34.	The big-endian format is one in which	6
	a) the least significant byte is stored in the low-address byte position	
	b) the least significant byte is stored in the high-address byte position	C 402 5
	c) the most significant byte is stored in the high-address byte position	C402.5
	d) the most significant byte is stored in the low-address byte position	
	e south fine different failing of the	1 4
35.	The message in SHA-512 is padded so that it's length is	A
	a) 832 mod 1024	
	b) 768 mod 1024	C402.5
	c) 960 mod 1024	0402.3
	d) 896 mod 1024	
36.	What is the maximum length of the message (in bits) that can be taken by	18 <u> </u>
r	SHA-512?	
	a) 2128	
	b) 2256	C402.5
·	c) 264	0102.5
	d) 2192	
37.	In SHA-512, the message is divided into blocks of size bits for the	8
	hash computation.	
	a) 1024	
	b) 512	C402.5
	c) 256	
	d) 1248	
38.	What is the number of round computation steps in the SHA-256	51.
	algorithm?	
	a) 80	
	b) 76	C402.5
	c) 64	
	d) 70	
39.	SHA-1 produces a hash value of	-
1	a) 256 bits	
323	b) 160 bits	C402.5
	c) 180 bits	
201	d) 128 bits	
40.	Which attack requires the least effort/computations?	
(HHO)	a) Pre-image	
1111月1日	b) Second Pre-image	C402.5
	<ul><li>c) Collision</li><li>d) All required the same effort</li></ul>	
/	u) An required the same error	
41.	For an m bit hash value, if we pick data blocks at random we can expect	C402.5

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	to find two data blocks with the same hash value within attempts.	•
	a) 2m	
	b) 2(m-1)	
	c) 2(m/2)	
	d) (2m) – 1	
42.	For an m-bit value, the adversary would have to try values	1
	to generates a given hash value h.	
	a) 2m	C402.5
	b) 2(m-1)	
	c) 2(m/2)	
	d) (2m) – 1	6
43.	A function that is second pre-image resistant is also collision resistant.	
	a) True	C402.5
	b) False	
44.	The second pre-image resistant property is	
	a) It is computationally infeasible to find any pair $(x, y)$ such that $H(x) =$	
	H(y)	
	b) For any given block x, it is computationally infeasible to find y not	C402.5
	equal to x, with $H(y) = H(x)$	0402.5
	c) For any given hash value h it is computationally infeasible to find y	
	such that $H(y) = h$	
	d) None of the mentioned	1.01
45.	Consider the following properties	
•	Variable Input size	
	Fixed Output size	
	Efficiency	
	Pre image resistant	
	Second Pre image Resistant	
	Collision resistant	
	Pseudo randomness	C402.5
	A has function that satisfies the first properties in the above table	ß .
	is referred to as a weak hash function.	
	a) 5	
	b) 4	
	c) 3 State number of reand contracted on steps in the StAA-256	
	d) 2	

SIGNATURE OF THE FACULTY IN-CHARGE

HoDV CSE

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\*

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#### **ANSWER KEY**

SL.NO	ANSWER	SL.NO	ANSWER	SL.NO	ANSWER	SL.NO	ANSWER	SL.NO	ANSWER
1.	D	11.	A	21.	B	31.	Α	41.	B
2.	Α	12.	D	22.	A	32.	A	42.	B
3.	D	13.	А	23.	С	33.	В	43.	В
4.	B	14.	В	24.	A	34.	D	44.	A
5.	Α	15.	С	25.	A	35.	D	45.	B
6.	. <b>A</b>	16.	D	26.	В	36.	A		
7.	A	17.	D	27.	С	37.	A		
8.	A	18.	В	28.	С	38.	С		
9.	В	19.	D	29.	С	39.	В		
10.	D	20.	С	30.	A	40.	С		

Dr. S.THILAGAVATHI M.E., Ph.D., PRINCIPAL SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN Kaikkurchi - 622 303, Pudukkottai Dt.



#### SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN KAIKKURICHI, PUDUKKOTTAI – 622 303 DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING ACADEMIC YEAR 2020-2021 (ODD SEMESTER) <u>STUDENTS MARK STATEMENT- CO BASED</u>

**CYCLE TEST-II** 

SUBJECT CODE & TITLE:CS8792 CRYPTOGRAPHY AND NETWORK SECURITYYEAR/SEM: IV/VIIMONTH & YEAR: SEP 2020

S.NO	REG NO	STUDENT NAME	C402.3 (25)	C402.4 (10)	C402.5 (15)	TOTAL (50)	TOTAI (100)
1.	912617104001	ADAIKKALAJAYASRI J	21	8	14	43	85
2.	912617104002	AKILA S	25	7	14	46	89
3.	912617104003	BAVANI V	24	9	15	48	95
4.	912617104005	INDUMATHI S	25	7	13	45	89
5.	912617104006	KARTHIKA S	26	6	12	44	87
6.	912617104007	KAYATHRI K	24	8	13	45	89
7.	912617104008	MULLAIYARASI R	24	7	14	45	90
8.	912617104009	NISHADEVI G	22	7	13	42	84
9.	912617104010	PARAMESHWARI S	22	7	11	40	80
10.	912617104011	PERIYANAYAGI M	23	6	11	40	80
11.	912617104012	PRIYADARSHINI S	21	8	13	42	84
12.	912617104013	PRIYADHARSHINI C	24	8	13	45	89
13.	912617104014	PRIYATHARSHINI V	24	7	14	45	90
14.	912617104015	RIZWANA PARVEEN Z	25	7	14	46	92
15.	912617104017	SEETHALAKSHMI S	22	8	13	43	85
16.	912617104018	VAHINI D	22	8	14	44	88
17.	912617104019	VINOTHA P	24	7	14	45	89
18.	912617104301	JAYA PREETHA C	24	7	15	46	91
19.	912617104302	RAJA LAKSHMI R	24	6	13	43	85

Dr. S.THILAGAVATHI M.C., Ph.D., PRINCIPAL SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN Kaikkurchi - 622 303, Pudukkottai DL

20.	912617104303	SANGEETHA S	23	8	15	46	91
21.	912617104701	NAVINA N	23	8	15	46	91

**MARKS RANGE:** 

<20	20-30	31-40	41-50	51-60	61-70	71-80	81-90	91-100
		j (6)	(65)		The spiritual states	2	14	5
20			18	11601.00	1. 1. 1. 1. 1. 1. 1.	12 1 100	Lourses en	

Total No.of Candidates Present	21
Total No.of Candidates Absent	NIL
Total No.of Students Pass	21
Total No. of Students Fail	NIL
Percentage of Pass	100%

SIGNATURE OF THE FACULTY IN-CHARGE

P HOD / CSE PRINCIPAL CSEA

SRI BHARATHI ENGINEERING PRINCIPAL COLLEGE FOR WOMERI BHARATHI ENGINEERING KAIKKURICHI, COLLEGE FOR WOMEN PUDUKKOTTAI - 622 303 KAIKKURICHI - 622 303. PUDUKKOTTAI DISTRICT

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Dr. S.THILAGAVATHI M.E., Ph.D., PRINCIPAL SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN Kaikkurchi - 622 303, Pudukkottai Dt.

#### SD<sup>T</sup> BHARATHI ENGINEERING COLLEGE FOR WOMEN

ved by AICTE, New Delhi and affiliated to Anna University,

Chennai)

Semester No. : 07

Course Code / Name : CS8792 - CYPTOGRAPHY AND NETWORK SECURI Branch : 104 - B.F. Computer Science and Engineering

S.NO	REG NO	STUDENT NAME	GRADE
1.	912617104001	ADAIKKALAJAYASRI J	17
2.	912617104002	AKILA S	18
3.	912617104003	BAVANI V	19
4.	912617104005	INDUMATHI S	18
5.	912617104006	KARTHIKA S	18
6.	912617104007	KAYATHRI K	18
7.	912617104008	MULLAIYARASI R	18
8.	912617104009	NISHADEVI G	17
9.	912617104010	PARAMESHWARI S	16
10.	912617104011	PERIYANAYAGI M	16
11.	912617104012	PRIYADARSHINI S	17
12.	912617104013	PRIYADHARSHINI C	18
13.	912617104014	PRIYATHARSHINI V	18
14.	912617104015	RIZWANA PARVEEN Z	19
15.	912617104017	SEETHALAKSHMI S	17
16.	912617104018	VAHINI D	17
17.	912617104019	VINOTHA P	17
18.	912617104301	JAYA PREETHA C	18
19.	912617104302	RAJA LAKSHMI R	17
20.	912617104303	SANGEETHA S	19
21.	912617104701	NAVINA N	18

#### SIGNATURE OF THE FACULTY IN-CHARGE

HoD/CSE

HOD / CSE SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN KAIKKURICHI. PUDUKKOTTAI - 622 303

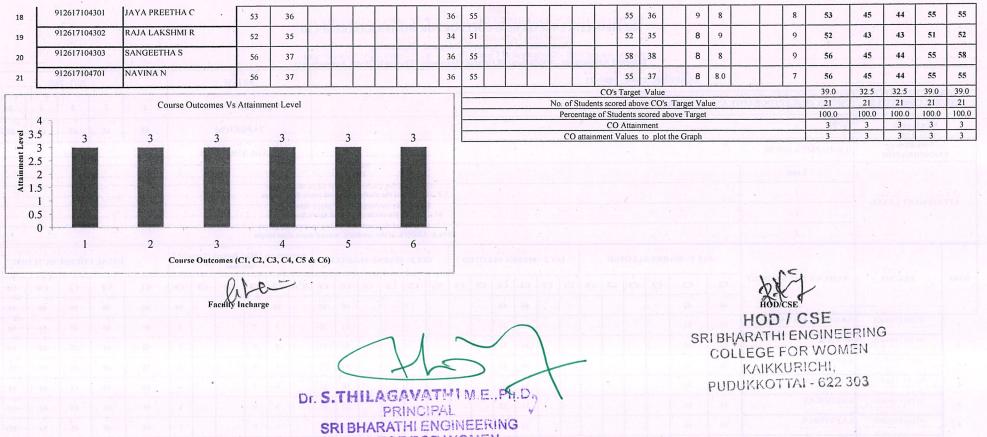
Dr. S.THILAGAVATHI M.E., Ph.D., PRINCIPAL SRI BHARATHI ENGINEER!NG COLLEGE FOR WOMEN Kaikkurchi - 622 303, Pudukko... Dt

#### SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN, KAIKKURUCHI

Department of Computer Science and Engineering

hand for						Inter	nal A	ssess	ment	-Atta	inme	nt of	Cour	se Ou	itcom	ies (T	hrou	ugh Di	rect A	ssessn	nent)			-				1.			in the		
				ACAD	EMIC	YEAF	R - 202	0 - 21		1	_ l	1.	14		<u></u>	1			1				BA	тсн			2017-2021						
COUL	RSE CODE/TITLE	CS8792(C402)/CYPTOGRAPI	HY AND	NETWO	RK SE	CURI	ТҮ									-					COURSE OUTCOME					inse' Oi	0 1	2	3	4	5		
5	YEAR/SEM	IV/VII		TORNHON COT											TARGET(%)					65	65	65	65	65									
CC	COURSE	G.SUGAPRIYA,AP/CSE													то	TAL S	TREN	бтн		1000		21											
		Level	-															.]	Range		1									1 6			
		1 .						1							UPT	O 60%	% of t			ored m	ored more than target												
ΑΤΤΑ	INMENT LEVEL	2		61 - 79% of the students scored more																													
		3			80% & ABOVE of the students scored								s scored more than target																				
			I	AT 1 - M.	ARKS	ALLO	TED		L	AT 2 -	MARI	KS AL	LOT	ED		IAT 3 -	- MA	ARKS A	LLOT	ED	Assi	gnmen		i Projec ninar	et /Tuto	orial /	TOTAL COURSE OUTCOME						
S.NO	REG NO	NAME OF THE STUDENT	C1	C2	C3	C4	C5	C6	CI	C2	C3	C4	C5	C6	CI	C2	c	C3 C4	C5	C6	CI	C2	C3	C4	C5	C6	C1	C2	C3	C4	C5		
		1. Ha	60	40							40	60	1						60	40		10	10	e the	9	10	60	50	50	60	60		
1	912617104001	ADAIKKALAJAYASRI J	51	34							34	51							52	35		9	7	2		9	51	43	41	51	52		
2	912617104002	AKILA S	52	34						/	36	53				1	17		53	35		8	9			9	52	42	45	53	53		
3	912617104003	BAVANI V	58	38						1	38	57	0	-	Z	1	L		55	37		7	8			8	58	45	46	57	55		
4	912617104005	INDUMATHI S	55	36						1	36	53							54	36		9	7			9	55	45	43	53	54		
5	912617104006	KARTHIKA S	55	36				. ,			35	52							52	35	R.J	9	9			8	55	45	44	52	52		
6	912617104007	KAYATHRI K	55	36					1		36	53	12	3241	214		71	AS	52	34		9	9		-	7	55	45	45	53	52		
7	912617104008	MULLAIYARASI R	56	38							36	54	1216	03	100	124	36	2.1.1.	50	34		9	9			9	56 '	47	45	54	50		
8	912617104009	NISHADEVI G	51	34							34	50			1	194			52	35		9	9			8	51	43	43	50	52		
9	912617104010	PARAMESHWARI S	48	32							32	48				4			52	34		9	9	1		7	48	41	41	48	52		
10	912617104011	PERIYANAYAGI M	49	32							32	48							44	29		8	9			9	49	40	41	48	44		
11	912617104012	PRIYADARSHINI S	55	36							34	50							50	34	-	8	8			9	55	44	42	50	50		
12	912617104013	PRIYADHARSHINI C	53	35							36	53					-		56	37		8	8			9	53	43	44	53	56		
13	912617104014	PRIYATHARSHINI V	49	33							36	54							56	38		9	8			9	49	42	44	54	56		
14	912617104015	RIZWANA PARVEEN Z	55	37						-	37	55					-		57	38		9	9			9	55	46	46	55	57		
15	912617104017	SEETHALAKSHMI S	53	35							34	51							53	35		9	9			9	53	44	43	51	53		
16	912617104018	VAHINI D	53	35							35	53							51	34		9	9			8	53	44	44	53	51		
17	912617104019	VINOTHA P	53	35							36	53							51	34	-	8	9			8	53	43	45	53	51		
L					L				-		Ir C			-	-		-	AA FS	-	br				-					-				

Dr. S.THILAGAVATHI M.E., Ph.D., PRINCIPAL SRIBHARATHI ENGINEERING COLLEGE FOR WOMEN Kaikkurchi - 622 303, Pudukkottai Dt.



SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN Kaikkurchi - 622 303, Pudukkottai Dt.

#### SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN DEPARTMENT OF CSE

#### COURSE OUTCOME ATTAINMENT - UNIVERSITY EXAMINATION ACADEMIC YEAR : 2020 - 2021 (ODD SEM)

YEAR/SEM: IV CSE / VII

Batch:2017-2021

SUBJECT :CS8792 (C402) / CRYPTOGRAPHY AND NETWORK SECURITYCO Attainment Level: 1 - (UPTO 60% )2- (61%-79%)3-(80% and Above)TOTAL STRENGTH :21

S.NO	Register No	NAME	Univ. Grade	
1	912617104001	ADAIKKALAJAYASRI J	U	
2	912617104002	AKILA S	U	
3	912617104003	BAVANI V	В	
4	912617104005	INDUMATHI S	U	
5	912617104006	KARTHIKA S	U	
6	912617104007	KAYATHRI K	U	
7	912617104008	MULLAIYARASI R	Ŭ	
8	912617104009	NISHADEVI G	U	
9	912617104010	PARAMESHWARI S	U	
10	912617104011	PERIYANAYAGI M	U	
11	912617104012	PRIYADARSHINI S	U	
12	912617104013	PRIYADHARSHINI C	U	
13	912617104014	PRIYATHARSHINI V	В	
14	912617104015	RIZWANA PARVEEN Z	В	
15	912617104017	SEETHALAKSHMI S	U	
16	912617104018	VAHINI D	U	
17	912617104019	VINOTHA P	U	
18	912617104301	JAYA PREETHA C	U	
19	912617104302	RAJA LAKSHMI R	U	
20	912617104303	SANGEETHA S	В	
21	912617104701	NAVINA N	U	
	No.	of O Grade	0	
	No.	of A+ Grade	0	
	No.	of A Grade	0	
	No.	of B+ Grade	0	
	No.	of B Grade	4	
		of U Grade	17	
		of UA Grade	0	
	course outcome Attai	nment	60	2
	ents above the target		4	
)-Attainr	nent University (	%)	19.05	

Faculty

Dr. S.THILAGAVATHIM.E., Ph.D.,

HOD/CSE

PRINCIPAL SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN Kaikkurchi - 622 303, Pudukkottai Dt. HOD / CSE SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN KAIKKURICHI, PUDUKKOTTAI - 622 303

со	CO-Attainment Internal (CO-INT) (Avg. Attainment of All section) (%)	CO-Attainment University (CO-UNI) (Avg. Attainment of All section) (%)	Direct CO Attainment (0.20xCO-INT + 0.80xCO-UNI) (%)	CO Attainment Level
C402.1	100.0	19.05	35.2	1
C402.2	100.0	19.05	35.2	1
C402.3	100.0	19.05	35.2	1
C402.4	100.0	19.05	35.2	1
C402.5	100.0	19.05	35.2	1
C402.6	100.0	19.05	35.2	1

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#### Closure of the Quality Loop:

-

		CO-Target for Academic Year										
со	14-	-15	15-1	6	Gap fe 16-17	Gap for (%) 16- 17	Proposed to Bridge the Gap					
C402.1	65	79.71	65	. 69	65	35.2	-	-				
C402.2	65	79.71	65	71.17	65	35.2	-	-				
C402.3	65	79.71	65	63.15	65	35.2	-	-				
C402.4	65	79.71	65	75.11	65	35.2	-	-				
C402.5	65	79.71	65	73.57	65	35.2	-	-				
C402.6	65	79.71	65	68.44	65	35.2		1				

#### Expected CO-PO Level

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Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	P09	P010	PO11	PO12	PS01	PSO2	PSO3
C402.1	2	1	· 1	1		-			-				3	2	
C402.2	2	1	1	1				-	-				3	2	/
C402.3	3	2	2	1	-		-	-		-		- 11	2	2	
C402.4	3	2	2	1	-	-		-	-				2	2	
C402.5	3	2	2	1			-	-					2	2	
C402.6	2	2	1	1		-	-	-	-	-			2	2	
C402	2.3	1.7	1.5	1		- 1							2.3	2	

				PO Attainment Level												
Course	PO1	PO2	PO3	PO4	PO5	P06	PO7	POS	P09	PO10	PO11	PO12	PSO1	PSO2	PSO3	
C402.1	0.67	0.33	0.33	0.33	-			-	-	-	-	-	1	0.67	-	
C402.2	0.67	0.33	0.33	0.33	-		· · · ·	-	-	-	-	-	1	0.67		
C402.3	1	0.67	0.67	0.33	-		-	-		-	-	·	0.67	0.67	-	
C402.4	1	0.67	0.67	0.33	-		-	1	-	-		-	0.67	0.67	-	
C402.5	1	0.67	0.67	0.33	-		-	-			-	-	0.67	0.67		
C402.6	0.67	0.67	0.33	0.33	-	-		-					0.67	0.67	-	
C402	0.84	0.56	0.5	0.33	-	-	- /	-	-		-		0.78	0.67	- · ·	

100 A 100				Attainment of POs an	d PSOs:				1.		(1)	( ·			1
Course Code	PO1	PO2	PO3	PO4	PO5	PO6	P07	PO8	PO9	PO10	P011	PO12	PSO1	PSO2	PSO3
C402	2.3	1.7	1.5	1	-	-	-	-	-			-	2.3	2	-
Attainment	0.84	0.56	0.5	0.33	-	-	-	-	-	-	-	-	<u>0.</u> 78	0.67	

Comments by Program	1.
Coordinator	2.
Remarks by HoD	

Name and Signature of the Faculty Member CI - SUN OLDR (4)

Dr. S.THILAGAVATHI M.E., Ph.D., PRINCIPAL SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN Kaikkurchi - 622 303, Pudukkottai Dt.

SRI BHARATHI ENGINEERING FOF EOD WOMEN