**ANNEXURE 2.2.2** 

# **K.S. INSTITUTE OF TECHNOLOGY**

#14, Raghuvanahalli, Kanakapura main Road, Bengaluru – 560 109



# **Department of Computer Science & Engineering**

# QUALITY OF INTERNAL QUESTION PAPERS AND ASSIGNMENTS



### K.S. INSTITUTE OF TECHNOLOGY, BANGALORE - 560109 SECOND INTERNAL TEST QUESTION PAPER 2023-24 ODD SEMESTER

USN
-----

#### SET-A

Degree	: BE
Branch	: Computer Science and Engineering
<b>Course Title</b>	: Cryptography
Duration	: 90 Minutes

Semester: VII/A/B Course Code: 18CS744 Date: 24-11-2023 Max Marks: 30

Note: Answer	ONE full	question	from each	part.
--------------	----------	----------	-----------	-------

K-Levels: K1-Remebering, K2-Understanding, K3-Applying, K4-Analyzing, K5-Evaluating, K6-Creating

Q No.	Question	Marks	CO map ping	K-Level
	PART-A			
1(a)	<b>Construct</b> elliptic curve encryption and decryption process using ECC Diffie –Hellman key exchange.	6	CO3	К3
(b)	Apply Elliptic curve arithmetic on the elliptic curve $E_{23}(1,1)$ , P=(3, 10) and Q= (9,7). Find: i) P+Q ii) 2P	6	CO3	К3
(c)	Build Pseudo random number generator using RSA.	6	CO3	K3
	OR			
2(a)	Make use of symmetric encryption and explain key distribution scenario.	6	CO3	К3
(b)	(b) Apply Elliptic curve arithmetic on the elliptic curve $E_{11}$ (1, 6) for the curve defined by $y^2=x^3+1x+6$ with modulus of $p=11$ . Determine all the points in $E_{11}(1,6)$ .			К3
(c)	<ul> <li>Make use of neat diagram and explain the following in distribution of public keys.</li> <li>i) Public Announcement</li> <li>ii) Public Key Authority.</li> </ul>	6	CO3	К3
	PART-B			
3(a)	Apply Elgamal cryptosystem algorithm for $q= 13$ , its primitive root $\alpha=10$ . A's private key is 5, B's private key is 6 and M=17. Perform encryption and decryption.	6	CO2	K3
(b)	Make use of neat daigram; explain the general format of X.509 certificate.	6	CO4	К3
	OR			
4(a)	Apply Diffie –Hellman key exchange algorithm for $q=71$ , its primitive root $\alpha=7$ . A's private key is 5, B's private key is 12. Find i) A's Public Key ii) B's Public Key iii) Shared Secret Key.		CO2	К3
(b)	Utilize an example and explain hierarchy of X.509.	6	CO4	К3

Name and Signature of **Course In charge** 

()2 ucatap 11/23 Dr. REKHA B. VENKATA write Name and Signature of **HOD CSE Module coordinator** 

Principal



### K.S. INSTITUTE OF TECHNOLOGY, BANGALORE - 560109 SECOND INTERNAL TEST QUESTION PAPER 2023-24 ODD SEMESTER



#### SET-B

Degree	: BE
Branch	: Computer Science and Engineering
<b>Course Title</b>	: Cryptography
Duration	: 90 Minutes

Semester:	VII/A/B
<b>Course Code</b>	:18CS744
Date: 24-11-2	2023
MaxMarks:	30

Note: Answer ONE full question from each part.

K-Levels: K1-Remebering, K2-Understanding, K3-Applying, K4-Analyzing, K5-Evaluating, K6-Creating

Q No.		Marks	CO map ping	K-Level
	PART-A		ſ	
1(a)	Identify the characteristics of elliptic curve over real numbers	6	CO3	K3
(b)	<b>Apply</b> Elliptic curve arithmetic on the elliptic curve $E_{13}(6, -9)$ for the curve defined by $y^2=x^3+6x-9$ with modulus of P=11. Determine all the points in $E_{13}(6, -9)$ .	6	CO3	К3
(c)	<b>Construct</b> ECC Diffie –Hellman key exchange mechanism with neat diagram.	6	CO3	К3
	OR			
2(a)	<b>Illustrate</b> the working of Micali-Schnorr pseudorandom bit generator using Elliptic Curve Cryptography.	6	CO3	К3
(b)	Apply Elliptic curve arithmetic on the elliptic curve $y^2=x^3-36x$ where $P = (-3,9)$ and $Q = (-2,8)$ . Find: i) P+Q ii) 2P	6	CO3	К3
(c)	<ul> <li>Make use of neat diagram and explain the following in distribution of public keys.</li> <li>i) Public available directory</li> <li>ii) Public Key certificates.</li> </ul>	6	CO3	К3
	PART-B			
	Apply Diffie –Hellman key exchange algorithm for prime no. $q=11$ , its primitive root $\alpha=2$ . A's private key is 9, B's private key is 3. Find i) A's Public Key ii) B's Public Key iii) Shared Secret Key.	6	CO2	К3
	<b>Make use</b> of a neat diagram, explain the fields of X.509 Certificate along with its application.	6	CO4	К3
	OR			
4(a)	<b>Apply</b> Elgamal cryptosystem algorithm for Prime No. $q= 13$ , its primitive root $\alpha=2$ . A's private key is 3, B's private key is 7 and M=4. Perform encryption and decryption.	6	CO2	К3
(b)	Utilize an example and explain hierarchy of X.509.	6	CO4	К3

Name and Signature of Course In charge

2014/23

Name and Signature of **Module coordinator** Dr. REKHA B. VENKATAPUR

HOD CSE

FUD

 $\bigcirc$ 

Principal



K S INSTITUTE OF TECHNOLOGY

Bengaluru - 560109

### **DEPARTMENT OFCOMPUTER SCIENCE & ENGINEERING**

### **CIE Question paper Scrutiny format**

C N	
Course Name	User Interface Design
Course Code	18CS734
Course Incharge	Mrs. Pallavi K N
Academic year	2023-2024 [Odd]
Semester	7
CIE #	Internal Assessment-I
Set	
S	crutiny parameters
Whether questions are according to assessment plan?	Yes □ No□ ; If No, Suggestions:
Whether questions prepared are within the covered syllabus?	Yes. ☐ No □ ; If No, Suggestions:
Whether all questions are mapped to CO/PO properly?	Yes
Whether questions framed are according to Blooms level?	Yes D No D; If No, Suggestions:
Whether marks distribution for each question are correct?	Yes  ☐ No □ ; If No, Suggestions:
Whether questions paper follows the format displayed?	Yes ☑ No □ ; If No, Suggestions:
Difficulty level	Very High 🗆 High 🗆 Moderate 🖵 Low
Percentage of Similarity questions in Set A & B	30%
Final decision	Accepted without corrections
	Accepted with minor corrections□
	Not accepted□

Signature with date of CIE Question paper setter

11.1 () ( In R I ho (m R & thow) Name and Signature with date of CIE Question paper Scrutiniser



## K S INSTITUTE OF TECHNOLOGY

Bangalore - 560109

## DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Course Name	CRYPTOGRAPHY	
Course Code	18CS744	
Course Incharge	Mrs. Pallavi R	
Academic year	2023-2024	
Semester	7 <sup>th</sup>	
CIE #	IA - 1	
Set		
S	Scrutiny parameters	
Whether questions are according to assessment plan?	Yest No□ ; If No, Suggestions:	
Whether questions prepared are within the covered syllabus?	Yes Ø No □ ; If No, Suggestions:	
Whether all questions are mapped to CO/PO properly?	Yes 🖉 No 🗆 ; If No, Suggestions:	
Whether questions framed are according to Blooms level?	Yes	
Whether marks distribution for each question are correct?	Yes Ø No□; If No, Suggestions:	
Whether questions paper follows the format displayed?	Yes ☑ No □ ; If No, Suggestions:	
Difficulty level	Very High 🗆 High 🗹 Moderate 🗆 Low	
ercentage of Similarity uestions in Set A & B	10%	
inal decision	Accepted without corrections□	
	Accepted with minor corrections□	
	Not accepted□	

### CIE Question paper Scrutiny format

Signature with date

of CIE Question paper setter

W we cut approl 22 0

Name and Signature with date of CIE Question paper Scrutiniser

Dr. REKHA B. VENKATAPUR



15

# K.S. Institute of Technology, Bangalore-560109.

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING ASSIGNMENT QUESTIONS-3

Academic Year	2022-23		
Batch	2020-24		
Year/Semester/section	III/V/A &B		
Subject Code-Title	18CS51- Management and Entrepreneurship for IT Industry		
Name of the Instructor	SUPREETHA GANESH	Dept	CSE

#### Assignment No: 3 Date of Issue:09-1-2023

### Total marks:10 Date of Submission: 17-11-2023

SI. No	Assignment Questions	K Level	CO	Marks
1.	What is ERP? Give the importance and need of ERP in the organization?	Apply (K4)	CO4	1
2.	Write a note on importance of management finance, accounting and Supply chain management in ERP software.	Apply (K4)	CO4	1
3.	Make use of project planning methodologies, briefly explain the steps involved in report writing.	Apply (K4)	CO4	1
4.	Research an ERP system or an ERP software application, and address the following: In your own words, define enterprise resource planning (ERP). Provide the name of the ERP system or the ERP software application you researched Briefly discuss the ERP system or the ERP software application and include how this resource can help an organization manage important aspects of its business. (Q & Solution – Cheggstudy)	Apply (K4)	CO4	1
5.	Write a note on i) Different types of patents. ii) MSME and its characteristics	Apply (K4)	C05	1
6	Describe the steps involved in the setting up of Small Scale industries	Apply (K4)	CO5	1
7	Making use of concepts of IPR explain the following i)Patent ii) Trade secret iii) Trademark iv) industrial Design	Apply (K4)	CO5	1
8	What is term industrial policy? How do governments create comparative advantage in different sectors of the economy?	Apply (K4)	CO5	1
9	Describe the Case study of i)Microsoft ii)Air Decaan G.R Gopinath	Apply (K4)	CO5	1
10	Write a note on KIADB, KSSIDC ,DIC and NSIC ,TEKSOK	Apply (K4)	CO5	1

531 22 Signature of Course In charge

Signature of module coordinator

Juratu ()HOD

Head of the Departme Dept. of Computer Science K.S. Institute of Testinol Bengaluru -560 109