

Student Name: University Roll No.:	School of Engineering First Theory Sessional Examination Odd Semester (AS: 2024-25) B. Tech: CSE, CSE(CCMIL) [Year:4] [Semester: VIII]	Printed Pages: 1
Course Title: Network Security and Cryptography Course Code: BCS 3702	Max Marks: 30 Time: 1hrs	

SECTION 'A'		CO	Marks
Q.N.1. Attempt all parts of the following:			
a)	What are the three aspects of security?	CO1	1
b)	What do you mean by Cryptanalysis?	CO2	1
c)	Define Security service	CO1	1
d)	What are the operations used in AES?	CO1	1
e)	What is diffusion?	CO1	1
SECTION 'B'		CO	Marks
Q.N.2. Attempt any two parts of the following:			
a)	What is the difference between a monoalphabetic cipher and polyalphabetic cipher. Explain with examples.	CO1	7.5
b)	What is the difference between public key and private key cryptosystem?	CO2	7.5
c)	Determine the GCD(24140, 16762) using the Euclidean algorithm.	CO1	7.5
SECTION 'C'		CO	Marks
Q.N.3. Attempt any one parts of the following:			
a)	Explain transposition technique. Convert plain text to Cipher text using Rail Fence technique "COMPUTER ENGINEERING".	CO1	10
b)	What is Steganography? Explain its features.	CO1	10
c)	Draw the block diagram of the DES algorithm and also explain it.	CO3	10

Table 1: Mapping between COs and questions

COs	Questions Numbers	Total Marks
CO1	1.a, 1.c, 1.d, 1.e, 2.a, 2.c, 3.a, 3.b	39
CO2	1.b, 2.b,	8.5
CO3	3.c	10

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Student Name: University Roll No.:	Printed Pages:1
School of Engineering First Theory Sessional Examination Odd Semester (AS: 2024-25)	
B. Tech: CSE	[Year: 4 <sup>th</sup> ] [Semester : 7 <sup>th</sup> ]
Course Title: ARTIFICIAL INTELLIGENCE	Max Marks: 30
Course Code: BCS 3701	Time: 1hrs-

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

SECTION 'A'		Course Objective	Marks
Q.N.1. Attempt all parts of the following:			
a)	Define Artificial Intelligence. Is it different from intelligence?	CO 1	1
b)	Differentiate between uninformed search and informed search.	CO 2	1
c)	List various applications of Artificial Intelligence	CO 1	1
d)	Difference between BFS and DFS.	CO 2	1
e)	What do you mean by Visual Perception?	CO 1	1
SECTION 'B'		Course Objective	Marks
Q.N.2. Attempt any two parts of the following:			
a)	Explain the N-queens problem with example	CO 2	7.5
b)	Describe the difference between language understanding and language generation with suitable examples	CO 1	7.5
c)	State the problems faced during hill climbing methods	CO 2	7.5
SECTION 'C'		Course Objective	Marks
Q.N.3. Attempt any one parts of the following:			
a)	Define the water jug problem in AI. Also suggest a solution of it.	CO 2	10

b)	Explain the role of Intelligent Agent in AI. Also explain all types of intelligent agents in details.	CO 1	10
c)	What is the difference between stochastic hill climbing and first choice hill climbing method?	CO 2	10

Table 1: Mapping between COs and questions

COs	Questions Numbers	Total Marks
CO1	1a, 1c, 1e, 2b, 3b	20.5
CO2	1b, 1d, 2a, 2c, 3a, 3b	37

UNIVERSITY NAME:  
University Roll No.:

Printed Pages: 01

School of Engineering  
First Theory Sessional Examination  
Odd Semester (AS: 2024-25)  
B. Tech: Computer Science and Engineering [Year: IV]  
[Semester : VIII]

Course Title: Quality Management  
Course Code: OE33501  
Max Marks: 30  
Time: 1 hrs

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

**SECTION 'A'**

Q.N.1. Attempt all parts of the following:

	Course Objective	Marks
a) What are the dimensions of quality?	CO1	1
b) Which ISO standard is specifically related to quality management systems?	CO1	1
c) Define quality planning?	CO1	1
d) What is a mission statement?	CO2	1
e) Define optimizing quality cost.	CO2	1

**SECTION 'B'**

Q.N.2. Attempt any two parts of the following:

	Course Objective	Marks
a) What do you understand by waste elimination? Explain.	CO1	7.5
b) Explain about customer satisfaction.	CO1	7.5
c) Explain the evolution of quality control from its early beginnings to the introduction of Six Sigma.	CO2	7.5

**SECTION 'C'**

Q.N.3. Attempt any one part of the following:

	Course Objective	Marks
a) Discuss how employee involvement contributes to the success of TQM.	CO1	10
b) How can organizations effectively implement quality controls to ensure a reliable supply chain?	CO1	10
c) Distinguish between quality and total quality management systems.	CO2	10

Table 1: Mapping between COs and questions

COs	Questions Numbers	Total Marks
CO1	1a, 1b, 1c, 2a, 2b, 3a and 3b	38
CO2	1d, 1e, 2c and 3c	19.5

Student Name: University Roll No.:	Printed Pages:
<b>School of Engineering</b> <b>Second Theory Sessional Examination</b> <b>Odd Semester (AS: 2024-25)</b> [Year: 4 <sup>th</sup> ] [Semester : 7 <sup>th</sup> ]	
B. Tech: CSE	Max Marks: 30
Course Title: ARTIFICIAL INTELLIGENCE	Time: 1hrs
Course Code: BCS 3701	

*Instructions if any: Read the question Carefully.*

SECTION 'A'		Course Objective	Marks
<b>Q.N.1. Attempt all parts of the following:</b>			
a)	Differentiate between uninformed search and informed search.	CO1	1
b)	Define Horn Clause.	CO 1	1
c)	What are the components of Expert System.	CO 2	1
d)	Translate the following into predicate logic :“Rohan eats Mango”.	CO 3	1
e)	Importance of LISP in AI.	CO 2	1
SECTION 'B'		Course Objective	Marks
<b>Q.N.2. Attempt any two parts of the following:</b>			
a)	Explain Hill Climbing and the problems faced during hill climbing methods.	CO 6	7.5
b)	Explain Pattern Recognition system with the help of a design.	CO 2	7.5
c)	Explain any one Expert system with a case study.	CO 4	7.5
SECTION 'C'		Course Objective	Marks
<b>Q.N.3. Attempt any one parts of the following:</b>			
a)	Differentiate forward chaining and backward chaining with examples.	CO 5	10
b)	Short notes on a) Expertise Transfer b)Self Explaining System.	CO 3	10
c)	Write a Lisp function to find the product of two numbers.	CO 6	10

**Table 1: Mapping between COs and questions**

COs	Questions Numbers	Total Marks
CO1	1a, 1b,	2
CO2	1c, 1e,, 2b,	9.5
CO3	1d, 3b	11
CO4	2c	7.5
CO5	3a	10
CO6	2a, 3c	17.5

Name: *Tej*  
 Student University Roll No.:  
 School of Engineering  
 Second Theory Sessional Examination  
 Odd Semester (AS: 2024-25)  
 B. Tech: CSE [Year: IV] [Semester: VIII]  
 Course Title: Web Technology Max Marks: 30  
 Course Code: GE33223 Time: 1hrs

Instructions if any: Read the question Carefully.

SECTION 'A'		Course Objective	Marks
<b>Q.N.1. Attempt all parts of the following:</b>			
a)	What is list in HTML?	CO1	1
b)	Write full form of BDK.	CO2	1
c)	What is debugging?	CO3	1
d)	What is JSP page?	CO4	1
e)	What do you understand by cookies?	CO2	1
SECTION 'B'		Course Objective	Marks
<b>Q.N.2. Attempt any two parts of the following:</b>			
a)	Write short note on DOM, SAX and XSTL	CO1	7.5
b)	What are cookies – Session tracking? Explain its security issues.	CO2	7.5
c)	How accessing a database from a JSP page?	CO4	7.5
SECTION 'C'		Course Objective	Marks
<b>Q.N.3. Attempt any one part of the following:</b>			
a)	What is tomcat server and implicit?	CO3	10
b)	Explain the life cycle a Servlet with diagram. How deploying JAVA Beans in a JSP page?	CO2	10
c)	Explain with an example.	CO4	10

Table 1: Mapping between COs and questions  
 (Number of COs may vary from course to course)

COs	Questions Numbers	Total Marks
CO1	1.a, 2.a	8.5
CO2	1.b, 1.e, 2.b, 3.b	19.5
CO3	1.c, 3.a	11
CO4	1.d, 2.e, 3.c	18.5

*M*  
 Coding design testing developing Analysis Requirement

Name: Student University Roll No.:		Printed Pages:1	
School of Engineering Second Theory Sessional Examination Odd Semester (AS: 2024-25) [Year : IV] [Semester : VII]			
B. Tech: CSE/CCML		Max Marks: 30	
Course Title: Network Security and Cryptography		Time: 1hrs	
Course Code: BCS3702			
Instructions if any: Read the question Carefully.			
<b>SECTION 'A'</b>			
<b>Q.N.1. Attempt all parts of the following:</b>		<b>Course Objective</b>	<b>Marks</b>
a)	What you meant by MAC?	CO2	1
b)	What are the properties of Digital Signature?	CO3	1
c)	What is discrete logarithmic problem?	CO2	1
d)	Define Kerberos.	CO3	1
e)	What do you understand by Digital Certificate?	CO3	1
<b>SECTION 'B'</b>			
<b>Q.N.2. Attempt any two parts of the following:</b>		<b>Course Objective</b>	<b>Marks</b>
a)	Perform encryption and decryption using RSA Algorithm for the following. $P=7; q=11; e=17; M=8$	CO2	7.5
b)	What do you understand by Digital Certificate? What are the services provided by PGP?	CO3	7.5
c)	What is Hash function? List the requirements of a Hash function.	CO4	7.5
<b>SECTION 'C'</b>			
<b>Q.N.3. Attempt any one part of the following:</b>		<b>Course Objective</b>	<b>Marks</b>
a)	What are the operations used in AES?	CO2	10
b)	Find gcd (24140, 16762) using Euclid's algorithm?	CO2	10
c)	Give the benefits of IP security? What are the protocols used to provide IP security?	CO4	10

Table 1: Mapping between COs and questions

COs	Questions Numbers	Total Marks
CO2	1.a,1.c,2.a,3.a,3.b	29.5
CO3	1.b,1.d,1.e,2.b	10.5
CO4	2.c,3.c	17.5

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Student Name:	University Roll No.:	Printed Pages: 0]
School of Engineering		
First Theory Sessional Examination		
Odd Semester (AS: 2024-25)		
B. Tech: CSE		
[Year: IV] [Semester: VII]		
Course Title: Cyber Law & Security		
Course Code: GE33231		
Max Marks: 30		
Time: 1hrs		
Instructions: 1-Mention any assumptions made.		
2-Notations have usual meaning.		
SECTION 'A'		
Q.N.1. Attempt all parts of the following:		
Course Marks	Objective	
1	CO1	a) What are the components of information systems?
1	CO1	b) What is the role of internet & web services?
1	CO1	c) Describe information system threats & attacks
1	CO1	d) Differentiate between active attack & passive attack.
1	CO1	e) Explain TCP/IP, IPV4, IPV6.
Course Marks	Objective	
1	CO1	Q.N.2. Attempt any two parts of the following:
7.5	CO1	a) How does information system contribute to decision making processes in modern organization?
7.5	CO1	b) What are the challenges of securing distributed information system, & how do distributors in information system manage cyber security risks?
7.5	CO1	c) How do DOS attack impact mobile & manage cyber security risks?

COs	Questions Numbers	Total Marks
CO1	1a, 1b, 1c, 1d, 1e, 2a, 2b, 2c, 3a, 3b, 3c	57.5

Table 1: Mapping between COs and questions

what are the primary cybersecurity strategies to mitigate these threats?	SECTION 'C'	Objective	Course Marks
Q.N.3. Attempt any one parts of the following:			
a) What are the primary cybersecurity challenges in mobile devices & how can organization mitigate risk associated with malware, data breaches, & unauthorized access?	CO1	10	
b) What are the most significant challenges faced by authentication services, & how can multi-factor authentication & biometric technology enhances security?	CO1	10	
c) How can laptops be secured in the context of increasing threats from the internet & the www, & what role do encryption & firewalls play in protective sensitive data?	CO1	10	

Name:		Printed Pages:1	
Student University Roll No.:		School of Engineering	
Second Theory Sessional Examination		Odd Semester (AS: 2024-25)	
B. Tech: CSE [Semester:7th]		[Year:4th]	
Course Title: Cyber Law & Security		Max Marks: 30	
Course Code: GEE33231		Time: 1hrs	
<i>Instructions if any: Read the question Carefully.</i>			
<b>SECTION 'A'</b>			
<b>Q.N.1. Attempt all parts of the following:</b>			
a)	Explain public key cryptography.	Course Objective	Marks
b)	Explain VPN.	CO1	1
c)	Define networks.	CO1	1
d)	What do you understand by ethics & investigation in cyber law?	CO2	1
e)	What is the criteria for selection of biometric?	CO2	1
<b>SECTION 'B'</b>			
<b>Q.N.2. Attempt any two parts of the following:</b>			
a)	What are some of the key legal & regulatory frameworks governing privacy, & how do they affect information security policies?	Course Objective	Marks
b)	Explain VPN, types of VPNs & their usage & security concern in VPN.	CO3	7.5
c)	What are the legal consequences of cybercrime? How do laws protect individuals from cybercrime?	CO2	7.5
<b>SECTION 'C'</b>			
<b>Q.N.3. Attempt any one part of the following:</b>			
a)	What are the essential requirements of a DSS? How do fingerprint recognition system work in terms of security, & what are their limitation? Explain following-	Course Objective	Marks
b)	a) Software Piracy b) Issues in e-business management c) Overview of Indian IT act	CO2	10
c)	Define issues in intellectual property rights, define copyright, patents.	CO2	10



Student Name:

University Roll No.:

School of Engineering  
Second Theory Sessional Examination

Odd Semester (AS: 2024-25)  
[Semester : 7<sup>th</sup>]

B.Tech: CSE, CCML, CSE(AI) [Year: 4<sup>th</sup>] Max Marks: 30

Course Title: Quality Management

Course Code: OE33501 Time: 1.0 hrs

Instructions: 1-Attempt all questions.

2-Notations have their usual meanings.

SECTION 'A'		Course Objective	Marks
<b>Q.N.1. Attempt all parts of the following:</b>			
a)	What is R-chart?	CO3	1
b)	Define Quality hierarchy	CO3	1
c)	What is Zero defect? Explain.	CO3	1
d)	What does ISO 9001:2000 signify?	CO4	1
e)	Define evolution of quality control	CO4	1
SECTION 'B'		Course Objective	Marks
<b>Q.N.2. Attempt any two parts of the following:</b>			
a)	Discuss various human factors in quality attitude of top management.	CO3	7.5
b)	What are control charts? Discuss.	CO4	7.5
c)	Explain the construction of X bar and R control charts. Where are they used?	CO3	7.5
SECTION 'C'		Course Objective	Marks
<b>Q.N.3. Attempt any one parts of the following:</b>			
a)	Why is a multi-function worker required in JIT?	CO4	10
b)	Write short note on the following: (i) MTTF, (ii) Maintainability, (iii) Quality circle.	CO4	10
c)	What is the need for separate quality accounting system? What is quality policy statement?	CO3	10

Table 1: Mapping between COs and questions

COs	Questions Numbers	Total Marks
CO3	1a,1b,1c,2a,2c, and 3c	28
CO4	1d,1e,2b,3a and 3b	29.5

Key

Student Name: \_\_\_\_\_ Printed Pages: 1  
 University Roll No.: \_\_\_\_\_

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

B. Tech: CSE  
 Year: 4<sup>th</sup>  
 Semester : 7<sup>th</sup>  
 Course Title: WEB TECHNOLOGY  
 Course Code: GE33223  
 Max Marks: 30  
 Time: 1hrs

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

SECTION 'A'		Course Objective	Marks
Q.N.1. Attempt all parts of the following:			
a)	Define image tag with an example.	CO1	1
b)	What is the scope of variables in Java Script?	CO1	1
c)	What is DATE object in Java Script.	CO1	1
d)	Define Events. How events are handled in Java Script?	CO2	1
e)	Why are attributes used in XML?	CO1	1
SECTION 'B'			
Q.N.2. Attempt any two parts of the following:			
a)	Explain about cascading style sheets with an example.	Course Objective	Marks
b)	What is the need of scripting languages in web technologies?	CO1	7.5
c)	Distinguish between HTML and XHTML.	CO2	7.5
SECTION 'C'			
Q.N.3. Attempt any one parts of the following:			
a)	Explain the structure of HTML webpage.	CO1	7.5
b)	Build a Java Script program to convert temperature from Celsius to Fahrenheit and vice versa.	Course Objective	Marks
c)	Define XML? What are the advantages of XML?	CO1	10

*Table 1: Mapping between COs and questions*

COs	Questions Numbers	Total Marks
CO1	Q.N.1.a,b,c,e, Q.N.2.a,c, Q.N.3.a,c	39
CO2	Q.N.1.d, Q.N.2.b, Q.N.3.b	18.5

## Inheritance in Java contd.

- a class which is inherited is called a parent or superclass, and the new class is called child or subclass.


### Types of Inheritance in java:

On the basis of class, there can be three types of inheritance in java:

- Single Inheritance
- Multilevel Inheritance
- Hierarchical Inheritance

**But java has support of below Inheritance through interface only**

- Multiple Inheritance: But java does not support multiple in Hybrid inheritance to reduce complexity.
- Hybrid Inheritance



**Inheritance in Java contd.**

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**Types of Inheritance in java:**

On the basis of class, there can be three types of inheritance in java:

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- Multiple Inheritance: But java does not support multiple in Hybrid inheritance to reduce complexity.
- Hybrid Inheritance

## Introduction to Internet Tools

Some internet tools are:

- E-mail: Used to send electronic message over the internet
- Telnet: Used to log on to a remote computer that is attached to internet
- Internet Relay Chat(IRC): Allows the people from all over the world to communicate in real time.
- Gopher: Used to search, retrieve, and display documents on remote sites.
- FTP: Enable the users to transfer files
- Chat software: Offers real time chat between individuals and group of people.  
Eg. Yahoo messenger, MSN messenger

