



*R20 Regulation* *Subject code: 3P4HB*  
**TKR COLLEGE OF ENGINEERING AND TECHNOLOGY**  
(Autonomous, Accredited by NAAC with 'A+' Grade)

**B.Tech IV Semester Supplementary Examinations, July 2024**

**INFORMATION SECURITY  
(CSE(DS))**

**Maximum Marks: 70**

Date:23.07.2024 Duration: 3 hours

- Note: 1.This question paper contains two parts A and B.  
2. Part A is compulsory which carries 20 marks. Answer all questions in Part A.  
3. Part B consists of 5 Units. Answer any one full question from each unit which carries 10M.  
4. Each question carries 10 marks and may have a, b, c, d as sub questions.

**Part-A**

All the following questions carry equal marks (10X2M=20 Marks)		CO	Bloom Tx
1	Define Information Security.	1	L1
2	Categorize passive attacks.	1	L1
3	Compare stream and block ciphers with examples.	2	L2
4	List out block cipher principles.	2	L1
5	List the schemes for the distribution of public keys.	3	L1
6	What is message authentication?	3	L1
7	What is security association?	4	L1
8	What is the significance of tunnel mode?	4	L1
9	Write why PGP is open source?	5	L2
10	List the operations provide by PGP.	5	L2

**Part-B**

Answer All the following questions. (5X10M=50Marks)			
11	Discuss the network security model with neat illustration and explain the components of model. [10]	1	L2
OR			
12	Discuss any two Substitution Technique and list their merits and demerits. [10]	1	L2
13	A. Compare and contrast DES and AES? [5] B. Explain the principle elements of a public key cryptography. [5]	2	L2
OR			
14	Explain various modes of operations about block ciphers. [10]	2	L2
15	Describe SHA-512 algorithm in detail. [10]	3	L2
OR			
16	Describe the different approaches to message authentication. [10]	3	L2
17	List and briefly define the SSH protocols. [10]	4	L2

	OR		
18	Illustrate S/MIME message? [10]	4	L2
19	What is IP security and explain in detail IP security architecture. [10]	5	L2
	OR		
20	Briefly discuss on a) Intruders b) Password management [5+5]	5	L3