

**ANURAG Engineering College**

(An Autonomous Institution)

III B.Tech II Semester Supplementary Examinations, Dec-2023/Jan-2024

**NETWORK SECURITY**

(COMPUTER SCIENCE AND ENGINEERING)

**Time: 3 Hours****Max.Marks:75****Section – A (Short Answer type questions)****(25 Marks)****Answer All Questions**

	<b>Course Outcome</b>	<b>B.T Level</b>	<b>Marks</b>
1. What is the need of security? Explain with example.	CO1	L1	2M
2. Explain the different types of Security Attacks.	CO1	L2	3M
3. Mention the Differences between symmetric and asymmetric key cryptography.	CO2	L2	2M
4. Explain the principles of public key cryptosystems.	CO2	L2	3M
5. What are the functions of Authentication?	CO3	L1	2M
6. Write short notes on X.509.	CO3	L1	3M
7. How to provide security to TCP/IP using IPsec.	CO4	L1	2M
8. Briefly explain the Secure Electronic Transaction (SET)	CO4	L2	3M
9. What are the advantages of firewall usage?	CO5	L1	2M
10. What are the countermeasures?	CO5	L1	3M

**Section B (Essay Questions)****Answer all questions, each question carries equal marks.****(5 X 10M = 50M)**

11. A) Classify the different types Substitution Techniques with neat sketch.	CO1	L3	10M
<b>OR</b>			
B) Classify the different types of Transposition Techniques with examples.	CO1	L3	10M
12. A) Elaborate the Block cipher modes of operation with example.	CO2	L3	10M
<b>OR</b>			
B) Identify the importance of Diffie-Hellman Key exchange in network Security.	CO2	L3	10M
13. A) Analyze the working principle of MAC, Whirlpool and HMAC algorithms.	CO3	L3	10M
<b>OR</b>			
B) Explain the working principle of Kerberos with neat sketch.	CO3	L2	10M
14. A) Illustrate the importance of the Pretty Good Privacy (PGP) with example.	CO4	L3	10M
<b>OR</b>			
B) Explain the Secure Socket Layer (SSL) with example.	CO4	L2	10M
15. A) Outline the different principles of Firewall design.	CO5	L3	10M
<b>OR</b>			
B) Analyze the intruder detection and prevention system.	CO5	L3	10M