

## **23CS32P2 – CRYPTOGRAPHY AND NETWORK SECURITY LAB**

<b>Course Category:</b>	Professional Core	<b>Credits:</b>	1.5
<b>Course Type:</b>	Practical	<b>Lecture-Tutorial-Practical:</b>	0-0-3
<b>Prerequisite:</b>	Nil	<b>Sessional Evaluation:</b> <b>Univ. Exam Evaluation:</b> <b>Total Marks:</b>	30 70 100

<b>Course Content:</b>	<p><b><u>LIST OF EXPERIMENTS (WITH BLOOM'S COGNITIVE LEVELS):</u></b></p> <ol style="list-style-type: none"><li>1. Write a C program that contains a string (char pointer) with a value 'Hello world'. The program should XOR each character in this string with 0 and displays the result.</li><li>2. Write a C program that contains a string (char pointer) with a value 'Hello world'. The program should AND or and XOR each character in this string with 127 and display the result.</li><li>3. Write a Java program to perform encryption and decryption using the following algorithms a. Ceaser cipher b. Substitution cipher c. Hill Cipher</li><li>4. Write a C/JAVA program to implement the DES algorithm logic.</li><li>5. Write a C/JAVA program to implement the Blowfish algorithm logic.</li><li>6. Write a C/JAVA program to implement the Rijndael algorithm logic.</li><li>7. Write the RC4 logic in Java Using Java cryptography; encrypt the text —Hello worldl using Blowfish. Create your own key using Java key tool.</li><li>8. Write a Java program to implement RSA algorithm.</li><li>9. Implement the Diffie-Hellman Key Exchange mechanism using HTML and JavaScript.</li><li>10. Calculate the message digest of a text using the SHA-1 algorithm in JAVA.</li><li>11. Calculate the message digest of a text using the MD5 algorithm in JAVA..</li></ol>
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