




This document is a part of Main Course File		Document No.: CFM – 8	
	SARDAR VALLABHBHAI PATEL EDUCATION SOCIETY MANAGED		
	<b>N. G. PATEL POLYTECHNIC</b> <b>Computer Engineering Department</b>		
FORMAT FOR ASSIGNMENTS			
Course Name (With Code): Basic Information Security (4360702)			
Semester / Year: 6th Semester / 3 <sup>rd</sup> year			
Assignment Number: 1			
Assignment CO Number: 4360702.A			
Sr. No.	Questions related to Course Outcomes		
Part – A	Questions carrying 2 Marks		
1	What is information Security?		
2	Explain need for security		
3	Explain masquerade attack		
Part – B	Questions carrying 3 Marks		
1	Explain types of security attacks		
2	Difference between Active attacks and Passive attack		
Part – C	Questions carrying 4 Marks		
1	Explain Denial Of Services with diagram		
2	Explain confidentiality, integrity and availability		
3	Explain security services		
4	Explain security mechanisms		
Part – D	Questions carrying 7 Marks		
1	Explain CIA TRIAD of information Security		
2	Write down brief notes on security services		
3	Write down brief notes on security mechanisms		
Prepared By: (Name of Faculty (ies)) with signature		Signature of Head of Department	

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FORMAT FOR ASSIGNMENTS			
Course Name (With Code): Basic Information Security (4360702)			
Semester / Year: 6th Semester /3rd year			
Assignment Number: 2			
Assignment CO Number: 4360702.B			
Sr. No.	Questions related to Course Outcomes		
Part – A	Questions carrying 2 Marks		
1	Define terms : 1> plain Text 2> cipher text 3> key 4> Encryption 5> Decryption		
2	Define cryptography and cryptanalysis		
3	Justify “One Time Pad is unbreakable		
4	What is steganography?		
Part – B	Questions carrying 3 Marks		
1	Write a short note on cryptanalysis		
2	Write a short note on steganography		
3	Differentiate polyalphabetic and mono alphabetic cipher		
Part – C	Questions carrying 4 Marks		
1	Write short note on OTP		
2	Differentiate : Substitution Cipher and Transposition Cipher		
3	Solve using play fair cipher key “HYPERTEXT”, plain text IT IS LIKE HEAVEN”.		
4	Convert the plain text “GUJARAT” in to cipher text using vigenere method Key is INDIA		
5	Find the cipher text for the following using Hill cipher for given plaintext is : GTU and key is 3 2 4 8 1 6 6 9 5		
Part – D	Questions carrying 7 Marks		
1	Write the definition of cipher text and write key matrix for the plaintext “BAGYA” using play fair method		
2	Explain Rail fence Method of cryptography with Example		
3	Explain play fair cipher with example		
4	Explain Caesar cipher with example		
5	Justify need of cipher text in brief convert following plain text in to the cipher text using Caesar cipher “GUJARAT TECHNOLOGICAL UNIVERSITY”		

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	<b>Computer Engineering Department</b>		
<b>FORMAT FOR ASSIGNMENTS</b>			
<b>Course Name (With Code): Basic Information Security (4360702)</b>			
<b>Semester / Year: 6th Semester /3<sup>rd</sup> year</b>			
<b>Assignment Number: 3</b>			
<b>Assignment CO Number: 4360702.C</b>			
<b>Sr. No.</b>	<b>Questions related to Course Outcomes</b>		
<b>Part – A</b>	<b>Questions carrying 2 Marks</b>		
1	What is digital signature?		
2	Define PKI?		
3	Give full name of RA and CA		
<b>Part – B</b>	<b>Questions carrying 3 Marks</b>		
1	Explain digital signature in detail with suitable diagram		
2	Explain PKI with suitable diagram		
3	List and explain step to verifying and integrity of a Digital certificate		
4	Explain CDS in brief.		
<b>Part – C</b>	<b>Questions carrying 4 Marks</b>		
1	Explain how to achieve confidentiality using Public Key Cryptosystem with suitable diagram		
2	Explain how to achieve Secrecy(Authentication) using Public Key Cryptosystem with suitable diagram		
3	List and step to obtain digital certificate		
4	List and explain step to verifying and integrity of a Digital certificate		
<b>Part – D</b>	<b>Questions carrying 7 Marks</b>		
1	Explain how to achieve Secrecy(Authentication) and confidentiality using Public Key Cryptosystem with suitable diagram		
2	Explain RSA algorithm in detail with example		
3	List and step to obtain digital certificate		
4	List and explain step to verifying and integrity of a Digital certificate		
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MANAGED

**N. G. PATEL POLYTECHNIC**

Computer Engineering Department

**FORMAT FOR ASSIGNMENTS**

**Course Name (With Code): Basic Information Security (4360702)**


**Semester / Year: 6th Semester /3<sup>rd</sup> year**

**Assignment Number: 4**

**Assignment CO Number: 4360702.D**

Sr. No.	Questions related to Course Outcomes
<b>Part – A</b>	<b>Questions carrying 2 Marks</b>
1	Difference between intranet and internet
2	List types of fire wall
3	Difference between HIDS and NIDS
4	Define IDS
<b>Part – B</b>	<b>Questions carrying 3 Marks</b>
1	Explain DMZ
2	Explain VLAN
3	Explain Tunneling
4	Explain security implication in detail
5	Explain packet filtering Fire wall in detail
6	Explain application gate way firewall with example
7	Explain HIDS
8	Explain NIDS
<b>Part – C</b>	<b>Questions carrying 4 Marks</b>
1	Write a short note on NIDS
2	Define fire wall .and explain its limitation
3	Explain fire wall with their types and components
4	Explain IDS with types
5	Write a short note on IDS
<b>Part – D</b>	<b>Questions carrying 7 Marks</b>
1	Explain IDS with types
2	Explain fire wall with their types and components
3	Explain DMZ and VLAN with diagram

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FORMAT FOR ASSIGNMENTS		
Course Name (With Code): Basic Information Security (4360702)		
Semester / Year: 6th Semester /3 <sup>nd</sup> year		
Assignment Number: 5		
Assignment CO Number: 4360702.E		
Sr. No.	Questions related to Course Outcomes	
Part – A	Questions carrying 2 Marks	
1	Define virus	
2	Define worm	
3	Define intruders	
4	Define : intruders and insider	
5	Explain Cyber space and cyber crime	
Part – B	Questions carrying 3 Marks	
1	Difference between virus and worms	
2	List types of intruders and explain it	
3	Define hacking in detail	
4	Explain Man in Middle attack	
Part – C	Questions carrying 4 Marks	
1	Explain SQL injection	
2	Define vulnerabilities and list out types of vulnerabilities	
3	List out traditional problems associated with computer crime	
4	Explain cyber space	
5	Explain Man in Middle attack	
Part – D	Questions carrying 7 Marks	
1	Various types of cyber-attack in detail	
2	Explain SQL injection in detail	

3	Explain Man in Middle attack	
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