Seat No.:	Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY

ME SEMESTER II • EXAMINATION – SUMMER 2017

	•	t Code: 3/25104 Date: 30/05/20. t Name: PKI and Biometrics	17	
Time:02:30 PM to 05:00 PM Instructions:		2:30 PM to 05:00 PM Total Marks:	Total Marks: 70	
	2.	Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks.		
Q.1	(a) (b)	What is encryption and how does it work? What are different type of attacks on cryptosystems? Explain each in brief.	07 07	
Q.2	(a) (b)	Public keys and private keys – how they work with Encryption? Explain cryptography key definitions – plaintext, cipher text, encryption, encryption algorithm, key-length, Hash, digital signature, etc OR	07 07	
	(b)	Explain Symmetric-key algorithm. What are different types of Symmetric-key algorithms? Explain them in detail.	07	
Q.3	(a) (b)	Define public key or asymmetric algorithms and explain them in detail List the commonly faced cryptographic issues and explain them in detail OR	07 07	
Q.3	(a) (b)	What are digital signatures and how do they work? What is public key infrastructure? Explain different elements of PKI and different problems with PKI.	07 07	
Q.4	(a) (b)	Define the essential elements and best practices of an effective IT security system. What is trust? Explain the relationship between trust and security and distribution of trust in network, especially in distributed and open networks. OR	07 07	
Q.4	(a) (b)	What are the advantages and challenges of Single Sign-On (SSO) solutions? How to encrypt your email and keep your conversations private – Explain.	07 07	
Q.5	(a) (b)	Explain PKI security in terms of Encryption key management & authentication Why study legal issues? Explain patents Vs copyright OR	07 07	
Q.5	(a) (b)	What is the difference between law and ethics? Why is studying this complex? How Biometrics work and are used? Explain different biometric modalities like dynamic signature, face recognition, fingerprint, hand geometry, Iris, palm print, speaker recognition, vascular, etc	07 07	
