

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VI (OLD) - EXAMINATION – SUMMER 2017

Subject Code: 160702

Date: 08/05/2017

Subject Name: Information Security

Time: 10:30 AM to 01:00 PM

Total Marks: 70

Instructions:

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) Differentiate public key cryptography and symmetric key cryptography. Explain any one substitution method for symmetric key cryptography. **07**
(b) Differentiate mono alphabetic and poly alphabetic substitution method. Vigenere cipher with example. **07**
- Q.2** (a) Write Short Note on Types of Attacks. **07**
(b) Explain Columnar Transposition cipher with example. **07**
- OR**
- (b) Explain rail fence transposition technique with example. **07**
- Q.3** (a) Explain Feistel Cipher Structure with respect to its design features. **07**
(b) Explain block cipher mode of operation. **07**
- OR**
- Q.3** (a) Explain block cipher design principles. **07**
(b) Explain simplified DES method with example. **07**
- Q.4** (a) Write Short Note: PGP **07**
(b) Explain SHA-512 algorithm. **07**
- OR**
- Q.4** (a) Write Short Note: S/MIME **07**
(b) Explain four stages of a single round in AES. **07**
- Q.5** (a) Explain RSA Algorithm. **07**
(b) Explain central authority public key distribution scenario with neat and diagram. **07**
- OR**
- Q.5** (a) Explain Diffie Hellman key exchange algorithm. **07**
(b) Explain Exchange of public key certificate scenario with neat diagram. **07**
