

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

MCA SEMESTER—III—EXAMINATION –WINTER-2016

Subject code: 3630012

Date:09/01/2017

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 Answer the Following (any 7) [14]**
- 1 A Vending machine is installed in a dangerous part of city. List five vulnerabilities of the vending machine.
 - 2 List three kinds of harm a company could experience from electronic espionage. Name one recent espionage.
 - 3 List Fundamental Security properties and for each give an example.
 - 4 Name any three non-malicious programming errors.
 - 5 Is it possible to detect or prevent Salami attack? List possible controls.
 - 6 Some Operating Systems use buffered I/O. Whereas the actual write is performed later by the OS. What is effect of buffered I/O on integrity of the OS?
 - 7 Name different Message integrity threats.
 - 8 List 3 and explain one website vulnerability.
 - 9 What is characteristic of a good security policy?
 - 10 List different computer related privacy problems.
- Q.2 (a) Describe Interception, Interruption and modification System Security threats. 07**
(b) What purpose the CIA triangle serves for System Security? Explain in detail. 07
- OR**
- (b) What is an unexpected Program behaviour? List flaws arising out of them. 07**
- Q.3 (a) What is Buffer Overflow? Explain using a small code-snippet and appropriate diagram 07**
(b) What is an incomplete mediation? Explain possible security implication of the same 07
- OR**
- Q.3 (a) What is web anonymity? Is there any Browser on such anonymity principle?. 07**
(b) What is a Trusted System? Explain key characteristics. 07
- Q.4 (a) Does Military Security Policy exist in real? If so explain different sensitive levels. 07**
(b) Compare Clark-Wilson and Chinese wall security policy. 07
- OR**
- Q.4 (a) Explain SQL injection attack with a code example. 07**
(b) Explain characteristics of a Good Security Policy. 07
- Q.5 (a) What is a Threat in Transit? Can you name any two such attacks and explain them in brief? 07**
(b) List and explain message integrity threats. 07
- OR**
- Q.5 (a) List Computer related privacy problems and explain any one. 07**
(b) Can reverse engineering uncover the patented software? How? 07
