



SB-3866

M. Sc. (IT) (Sem. VIII) (Programme) Examination

March / April – 2011

Information Security & Applications

Time : 3 Hours]

[Total Marks : 70

Instructions :

નીચે દર્શાવેલ નિશાનીવાળી વિગતો ઉત્તરવહી પર અવશ્ય લખવી. Fillup strictly the details of signs on your answer book.	Seat No. :
Name of the Examination :	<input type="text"/>
<input type="text" value="M. SC. (IT) (SEM. VIII) (PROGRAMME)"/>	<input type="text"/>
Name of the Subject :	<input type="text"/>
<input type="text" value="Information Security & Applications"/>	<input type="text"/>
Subject Code No. : <input type="text" value="3"/> <input type="text" value="8"/> <input type="text" value="6"/> <input type="text" value="6"/>	<input type="text" value="Student's Signature"/>
Section No. (1, 2,.....) : <input type="text" value="Nil"/>	

- 1 Attempt the following : (any seven) 14
- What do you mean by Birthday attack ?
 - What do you mean by secret key ? Where and how it is useful ?
 - Explain Timing Attack in DES.
 - What do you mean by brute-force cryptanalysis ?
 - Define Threat and Attack.
 - Explain Firewall briefly.
 - Explain MAC.
 - What is collision in Hashing ?
 - What is Avalanche effect ?
- 2 Answer the following : 14
- Explain monoalphabetic ciphers with appropriate example. 8
 - Differentiate between block cipher and stream cipher. 6
- OR**
- Explain Feistel Cipher Design elements. 6

- 3** Answer the following : **14**
- (i) Classify the different security attacks with example. **8**
 - (ii) Explain Caesar Cipher with appropriate example. **6**
- OR**
- (ii) Discuss digital signature with its importance in cryptography. **6**
- 4** Answer the following : **14**
- (i) Explain RSA algorithm with example. **8**
 - (ii) List the pros and cons of Biometrics. **6**
- OR**
- (ii) Explain characteristics of Biometrics. **6**
- 5** Answer the following : **14**
- (i) Explain DES encryption. **8**
 - (ii) Explain any one substitution and permutation technique. **6**
- OR**
- (ii) Explain Hashing in detail. **6**
-