



17518

16117

3 Hours / 100 Marks

Seat No.

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- Instructions :** (1) *All questions are compulsory.*
(2) *Illustrate your answers with neat sketches wherever necessary.*
(3) *Figures to the right indicate full marks.*
(4) *Assume suitable data, if necessary.*
(5) *Use of Non-programmable Electronic Pocket Calculator is permissible.*

	Marks
1. a) Attempt any three of the following :	12
i) Explain 'Data Obfuscation'.	4
ii) Explain following with reference to information security.	4
a) Security policy	
b) Standards	
c) Guidelines	
d) Procedures	
iii) Give any four applications of cryptography.	4
iv) Describe any four virus attacks.	4
b) Attempt any one of the following :	6
i) Describe three pillars of information security.	6
ii) Describe any six protection mechanisms in 'Trusted Computing Base'.	6
2. Attempt any two of the following :	16
i) Describe levels of information classification and explain any three criteria for classification of information.	8
ii) Explain 'play fair cipher' encryption process with the help of following points.	8
a) Preparing plain text	
b) Preparing a key matrix	
c) Encryption process – Operation rules – with suitable example.	
iii) List any six 'Data Recovery Tools' and explain 'Data Recovery Procedure'	8

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3. Attempt any four of the following :	16
i) Explain 'Bell-Lapadula' model of information security.	4
ii) Explain working of 'Biometric System' with neat sketch.	4
iii) Describe 'Ring of Trust' in stand-alone system.	4
iv) Explain 'Simple Row Transposition' Technique of encryption with suitable example.	4
v) Describe any four 'Cyber Crimes'.	4
4. a) Attempt any three of the following :	12
i) Describe any four strategies of "Risk Control".	4
ii) Explain 'Virtual Private Network' with neat sketch.	4
iii) Explain 'Trusted Computing Base'.	4
iv) Explain 'One Time Pad' with suitable example.	4
b) Attempt any one of the following :	6
i) Explain working of 'Digital Signature' with neat sketch.	6
ii) Describe any six 'authentication protocols'.	6
5. Attempt any two of the following :	16
i) Describe 'IT ACT – 2000'.	8
ii) Explain stepwise working of 'Kerberos' with neat sketch.	8
iii) Describe various ways to 'Physical Access Control'.	8
6. Attempt any four of the following :	16
i) Describe 'Cyber crime investigation process'.	4
ii) Describe 'Information Technology Infrastructure Library' (ITIL).	4
iii) Explain ITSEC (Information Technology Security Evaluation Criteria) with its target of evaluation levels.	4
iv) Differentiate between – 'Qualitative Risk Analysis' and 'Quantitative Risk Analysis'.	4
v) Consider plain text – "INFORMATION" and convert given plain text into cipher text using 'Caesar Cipher' with shift of position three – Write down steps in encryption.	4