# 17518

# 21718 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) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

#### Marks

 $3 \times 4 = 12$ 

 $1 \times 6 = 6$ 

### 1. (A) Attempt any THREE :

- (a) Define information. State need and importance of information.
- (b) Define information security. Explain the concept of risk management with its components.
- (c) Difference between symmetric and asymmetric cryptography.
- (d) Describe in brief Cyber Crime. List different types of Cyber Crime.

## (B) Attempt any ONE :

- (a) Explain the three pillars of information security. Describe with neat diagram.
- (b) Explain the concept of Trusted Computing Base.

### 2. Attempt any TWO :

- (a) Define security. Describe different types of securities in organization.
- (b) State the substitution cipher. List the substitution cipher techniques and explain any two.
- (c) List and explain different data Recovery tools.

#### 3. Attempt any FOUR of the following :

#### $4 \times 4 = 16$

- (a) With respect to information security define following term :
  - (i) Security policy
  - (ii) Standards
  - (iii) Guideliness
- (b) What is information ? Explain Data Obfuscation.
- (c) State the importance of information classification. State the criteria for information classification.
- (d) Consider a plain text message 'I AM A HACKER'. Encrypt it with the help of Caesar's Cipher technique with steps.
- (e) Define the following terms :
  - (1) Hacking
  - (2) Bug Exploits
  - (3) Mail Bomb
  - (4) Intellectual Property

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4.	(A)	Atte	mpt any THREE : $3 \times 4$	3 × 4 = 12
		(a)	Explain Reference model with neat diagram.	
		(b)	Describe various physical Access threats.	
		(c)	Explain TCSEC in detail.	
		(d)	Consider a plain text message "Hi How Are You". Encrypt it with the help of Rail Fence Technique.	
	<b>(B)</b>	Atte	mpt any ONE : 1 ×	6 = 6
		(a)	Describe the term Digital Signature with its working.	
		(b)	Describe play Fair Cipher with example Step by Step.	
5.	Atte	mpt a	any TWO : 2 × 8	8 = 16
	(a)	How	do you recover the data in below situations?	
		(1)	Deleted file Recovery	
		(2)	Formated partition Recovery	
	(b)	Desc	cribe COBIT framework	
	(c)	Desc chara	cribe Biometric system. Describe the classification of Biometric acteristics.	
6.	Atte	mpt a	any FOUR : 4 × 4	= 16

- (a) Describe IT Act, 2008
- (b) Explain working of SSO
- (c) Explain BIBA model for integrity.
- (d) Describe ITSEC with its classes.
- (e) Explain HILL cipber technique with example for  $2 \times 2$  matrix.

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