

17518

16172

3 Hours / 100 Marks

Seat No.

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- Instructions :**
- (1) All Questions are *compulsory*.
 - (2) Answer each next main Question on a new page.
 - (3) Illustrate your answers with neat sketches wherever necessary.
 - (4) Figures to the right indicate full marks.
 - (5) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

1. (A) Attempt any **THREE** of the following :

12

- (1) Define security. State need of security.
- (2) Draw and explain CIA Triad.
- (3) What is cryptography ? State its applications.
- (4) With respect to information security define the following :
 - (a) Security policies
 - (b) Standards
 - (c) Guidelines

(B) Attempt any **ONE** of the following :

6

- (1) What is information classification ? Explain the terms for information classification.
- (2) Define Risk Management. Explain components of risk management.

2. Attempt any TWO of the following :**16**

- (a) Explain the concept of TCB. Describe rings of trust in Standalone system.
- (b) Consider the plain text “I am Rahul” convert given plain text into Cipher text using Playfair Cipher Cryptography with key as “Playfair example”. Write step-by-step procedure.
- (c) Explain the following :
 - (1) Software piracy
 - (2) Copyright
 - (3) Patent
 - (4) Trademark

3. Attempt any FOUR of the following :**16**

- (a) Explain the following terms :
 - (1) Data obfuscation
 - (2) Event classification
- (b) Describe ITSEC.
- (c) Define Hacking. Explain different types of Hackers.
- (d) What is Biometric Access Control ? Explain with diagram.
- (e) Describe ITIL framework.

4. (A) Attempt any THREE of the following :**12**

- (1) Explain BIBA Integrity Model.
- (2) List any four authentication protocols for security and explain any one.
- (3) Explain the following with their usage :
 - (a) Single sign-on
 - (b) Kerberos
- (4) Describe COBIT framework.

(B) Attempt any ONE of the following :**6**

- (1) What is symmetric encryption ? Explain the components of symmetric encryption.
- (2) List different data recovery tools and explain any two data recovery tools.

5. Attempt any TWO of the following :**16**

- (a) Consider the plain text "COMP" and key as "Hill", convert given plain text into cipher text using Hill Cipher. Write step-by-step procedure.
- (b) Explain the following :
 - (1) Deleted file Recovery
 - (2) Formatted Partition Recovery
- (c) Explain the following w.r.t. to security :
 - (1) Identification
 - (2) Authentication
 - (3) Authorization
 - (4) Access Control

P.T.O.

6. Attempt any FOUR of the following :

16

- (a) Describe TCSEC.
 - (b) Explain Bell Model of confidentiality with diagram.
 - (c) Describe IT Act, 2008.
 - (d) Explain simple columnar transposition technique with example.
 - (e) Explain any four physical access control mechanism.
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