

AI-111
April-2015
4th Year M.Sc., (CA & IT) Sem.-VIII
(Integrated)
Information Security

Time : 3 Hours]

[Max. Marks : 100

- I. Attempt the following : **20**
- (a) What is Information Security ? List and explain the components of Information security.
 - (b) Explain the component of Distributed Computing Environment.
 - (c) List and explain the characteristics of information with example.
 - (d) Explain Viruses, Worms & Trojan Horses. Also distinguish between the three.
- II. Answer the following : (Any 4) **20**
- (a) Explain information policy. List and explain the classes of information.
 - (b) List the Security Models and explain Clark-Wilson Security Model.
 - (c) Explain Authentication and Authorization with appropriate example.
 - (d) Explain the following Security Policies :
 - (i) Computer Systems & Network
 - (ii) Personal Management
 - (iii) Physical Security
 - (e) List and explain the major components of Security Infrastructure.
- III. Answer any 4 in detail : **20**
- (a) Explain the features of an “*effective*” and “*legally enforceable*” policy.
 - (b) List the security perimeter components and explain any two in brief with diagram.
 - (c) What is an IDPS ? Comment – “Why Acquire and use IDPS ?”
 - (d) List the different types of Security Policies. Explain Issue-Specific Security Policy.
 - (e) What is NIDPS ? Explain how the NIDPS determines whether an attack has occurred or not.

IV. Do as directed :

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- (a) Explain VPN. List and explain the types of VPN in brief with diagram.
- (b) What is a Firewall ? List the types of Firewalls and explain Packet Filtering Firewall.
- (c) Explain Internet Protocol Security in brief and explain the benefits of the same. Also explain the Authentication Header.
- (d) Explain the Network Security Model.
- (e) What is Kerberos ? Explain the Kerberos Process initiation process.

V. Answer the following : (Any 4)

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- (a) Explain the significance of SET in case of E-Transaction and list the services it provides. Also explain the SET Transaction flow diagram.
 - (b) What is a Web-application ? List and explain the benefits of Web-application in brief. Also list out the-Web-application vulnerabilities.
 - (c) Explain the SSL protocol stack and SSL Record Protocol.
 - (d) Explain the concept of Boundary Validation.
 - (e) Describe the following in brief :
 - (i) SSL Connection - "IV"
 - (ii) SSL Connection - Sequence Number
 - (iii) SSL Session - Cipher Spec
 - (iv) S-HTTP
 - (v) SSL Session
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