[This question paper contains 2 printed pages.]

Sr. No. of Question Paper : 5428   D   Your Roll No................

Unique Paper Code   : 234657

Name of the Course   : **B.A. (Prog.)**

Name of the Paper   : Information Security (CA 3B)

Semester   : VI

Duration : 3 Hours   Maximum Marks : 45

Instructions for Candidates

1. Write your Roll No. on the top immediately on receipt of this question paper.

2. Part **A** is compulsory.

3. Answer any **three** questions from Part **B**.

PART A

1. (a) Define Information.   (1)

    (b) Distinguish between threats and attacks.   (2)

    (c) What is a policy ? How is it different from a law ?   (2)

    (d) What are vulnerabilities ? How do you identify them ? (2)

    (e) Describe the term e-mail spoofing.   (2)

    (f) Describe brute force and dictionary attack.   (2)

    (g) Explain residual risk.   (2)

    (h) What is a hybrid firewall ?   (1)

    (i) Describe circuit gateway.   (1)

PART B

2. (a) What is information security ? Explain the different levels of security. (3)

   (b) Why is data the most important asset an organization possesses ? What other assets in the organization require protection ? (4)

   (c) What is the difference between a skilled hacker and an unskilled hacker ? How does the protection against each differ ? (3)

3. (a) What are the various types of malware ? How do worms differ from viruses ? Do Trojan horses carry viruses or worms ? (4)

   (b) What is the difference between a denial-of-service attack and a distributed denial-of-service attack ? Which is more dangerous ? Why ? (4)

   (c) Explain any one cryptographic technique for security. (2)

4. (a) Who is responsible for risk management in an organization ? Explain. (3)

   (b) Describe the term phishing and pharming with the help of an example. (4)

   (c) What are proactive and reactive risk management techniques ? (3)

5. (a) How is an application layer firewall different from a packet-filtering firewall ? Why is an application layer firewall sometimes called a proxy server ? (4)

   (b) What is access control ? Describe all access control approaches. (4)

   (c) What is authorization ? Describe different authorization techniques used in access control. (2)

6. Write short notes on any **two** from the following :

   (a) Digital signatures

   (b) Steganography

   (c) Symmetric cryptosystem (2×5)