

**Term End Examination - December, 2016**

**Diploma in Cyber Security**

**DCS-03 INFORMATION SECURITY (2016 Syllabus)**

**Time - 3 hours**

**Full Mark - 100**

*Answer any four questions from Group - 'A', any two questions from Group - 'B' and any three questions from Group - 'C'.*

**Group 'A'**

Mark: 5 × 4 = 20

*(Answer any four questions each within 100 words)*

Q. No. 1

- a) Name and define the three goals of Information Security.
- b) Explain different categories of passive attacks.
- c) Name and explain the security attacks on confidentiality.
- d) Explain the components of a secret key cryptography.
- e) What is the difference between a worm and a virus?
- f) What is a malware? Name different types of malwares?
- g) What do you mean by hacking? How can you prevent it?

**Group 'B'**

Mark: 10 × 2 = 20

*(Answer any two questions each within 250 words)*

Q. No. 2

- a) Differentiate between threat, vulnerabilities and risks in Information Security.
- b) Differentiate between symmetric and asymmetric key Cryptography.
- c) What is a spam? Write the criteria based on which an email can be classified as a spam.
- d) Name and explain the basic elements of a public key cryptography.
- e) Name and explain different techniques used for hacking.

**Group 'C'**

Mark: 20 × 3 = 60

*(Answer any three questions each within 500 words)*

- Q.No. 3. List and briefly explain different categories of security services.
4. Discuss the key challenges of Information Security.
  5. Mention the names and explain different types of cyber-crimes.
  6. Consider a message is to be transmitted from one party to another across some sort of Internet service. Suggest a network security model for this scenario with a diagram.
  7. What is an Antivirus? Discuss the methods of identification of viruses and other Malware by Antivirus software.
  8. Discuss the detection methods and applications of Intrusion Detection Systems.