T.Y. Diploma : Sem. V

[CO/CM]

Computer Security

Time: 3 Hrs.] Prelim Question Paper **[Marks : 100**

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) Preferably, write the answers in sequential order.

1. (a) Attempt any **THREE** of the following : **[12]**
(i) Describe the basic principles of computer security.
(ii) What is shoulder surfing? How it can be prevented?
(iii) Compare symmetric and asymmetric key cryptography.
(iv) Explain the terms : Cryptography, Cryptanalysis and Cryptology.

(b) Attempt any **ONE** of the following : **[6]**
(i) Describe with the neat diagram model for security.
(ii) Explain data recovery tools and data recovery procedures.

2. Attempt any **TWO** of the following : **[16]**
(a) Explain threat to security in detail w.r.t. virus, worms, intruders, insiders.
(b) Describe Biometric security mechanism with suitable diagram.
(c) Describe DES Algorithm with suitable diagram.

3. Attempt any **FOUR** of the following : **[16]**
(a) Explain the concept of Kerberos.
(b) Describe different password selection criteria.
(c) List types of firewall. Explain packet filter with diagrams.
(d) What is IP security? Describe authentication header mode of IP security.
(e) Explain the architecture of secure socket layer.

4. (a) Attempt any **THREE** of the following : **[12]**
(i) Convert plain text into cipher text by using simple columnas technique of the following sentence :
'ALL IS WELL FOR YOUR EXAM'
(ii) Describe IPsec configuration.
(iii) Describe pornography and software piracy related to cyber crime
(iv) What is an application hardening? How it can be achieved?

(b) Attempt any **ONE** of the following : **[6]**
(i) What is Risk? How it can be analyzed? List various assets.
(ii) State the types of attacks and describe Active and Passive attack with atleast one example each.

5. Attempt any **TWO** of the following : **[16]**
(a) Explain the role of people with respect to password selection in detail.
(b) What is Security topology ? Describe Security zone in detail.
(c) What is Kerberos? Explain with diagram different servers involved in Kerberos.

6. Attempt any **FOUR** of the following : **[16]**

(a) What is piggybacking? How it can be prevented?

(b) What is One Time Pad (OPT) security mechanism?

(c) Explain e-mail security techniques (protocols).

(d) What is intrusion detection system ? Explain host based IDS.

(e) What is SSL/TLS?

❑ ❑ ❑ ❑ ❑

T Y Diploma Sem-V: Paper Discussion Schedule

Branches	Date	Day	Timing	Centres
Computer Group	8 Nov. 2018	Thursday	9 a.m. to 11 a.m.	Thane
	8 Nov. 2018	Thursday	12 noon to 2 p.m.	Kalyan
	9 Nov. 2018	Friday	9 a.m. to 11 a.m.	Dadar, Borivali