INSTITUTE OF AERONAUTICAL ENGINEERING
(Autonomous)
M.Tech II Semester End Examinations (Supplementary) - January, 2019
Regulation: IARE–R16
CYBER SECURITY

Time: 3 Hours　　　　　　　　　　**(CSE)**　　　　　　　　　　**Max Marks: 70**

Answer ONE Question from each Unit
All Questions Carry Equal Marks
All parts of the question must be answered in one place only

UNIT – I

1. (a) Define cyber crime? Explain the different types of cyber-crime.　**[7M]**

   (b) What do you mean by social engineering? How it can be used for cyber-attack?

   　[7M]

2. (a) What is cyber forensic and its application in combating cybercrime?　**[7M]**

   (b) What are n-tier web applications? Explain with suitable examples.　**[7M]**

UNIT – II

3. (a) Explain RSA algorithm. Derive RSA equation from Euler's theorem.　**[7M]**

   (b) What is payment gateway and explain how it functions with examples.　**[7M]**

4. (a) Write short notes on　**[7M]**
      i. Hacking
      ii. Cracking
      iii. Stalking

   (b) Kartik loves old movies songs and has a large collection of such songs which he wants to share with anyone who is interested. He comes up with the idea of converting the songs into MP3 format and putting up a website where he will list the titles of the songs. Each user can then request her for specific song(s) which she/he wants. Kartik can then specifically permit copying of that song to the user's hard disk. Kartik approaches Deepak who agrees to develop the website and host the list of songs to execute the idea. Is there any intellectual property issue involved in this case? Do Kartik and Deepak have any legal liability if they implement this idea? Discuss the legal liability of both Kartik and Deepak separately.

   　[7M]

UNIT – III

5. (a) What is the symmetric and asymmetric encryption? Explain with example.　**[7M]**

   (b) Explain the role of firewall and IDS? Find out difference between IDS and IPS.　**[7M]**

6. (a) Why should you do a standard risk assessment to prepare for an investigation?　**[7M]**

   (b) What is IP tracking. Explain how it is useful in cyber crime investigation.　**[7M]**

UNIT – IV

7. (a) What are the possibilities of recovering deleted files from a seized device? Explain in detail.
[7M]

   (b) What is message digest? Explain its applications and advantages in detail. **[7M]**

8. (a) What is digital signature? How it is different from digital certificate? Explain in detail. **[7M]**

   (b) What is window registry? What type of information can be retrieved from registry which can be helpful for Forensic Investigation? **[7M]**

UNIT – V

9. (a) List and explain the offences as per Indian IT Act with an example. **[7M]**

   (b) What is the IPC? What are the Laws and Ethics followed in IPC. How it is different from CrPC?
[7M]

10. (a) Discuss the admissibility of digital evidence in India. How it is useful in evidence handling procedure. **[7M]**

   (b) Describe Electronic Communication Privacy Act(ECPA). Explain how it is useful in privacy Act.
[7M]

$- \circ \circ \bigcirc \circ \circ -$