

May 2017

Total No. of Questions : 10]  
P3120

[5154]-687

SEAT No. :   
[Total No. of Pages : 2

**B.E. (Computer Engineering)**  
**CYBERSECURITY (Elective - III)**  
**(2012 Pattern)(Semester - II) (End Sem) (410451D) (Elective - III)**

Time : 2½ Hours]

[Max. Marks : 70

Instructions to the candidates:

- 1) Answer Q1 or Q2, Q3 or Q4, Q5 or Q6, Q7 or Q8 and Q9 or Q10.
- 2) Neat diagrams must be drawn wherever necessary.
- 3) Figures to the right indicate full marks.
- 4) Use of logarithmic tables, slide rule, Mollier charts, electronic pocket calculator and steam tables is allowed.
- 5) Assume suitable data, if necessary.

Q1) a) What is cryptanalysis? Explain various cryptanalysis techniques. [5]  
b) Using Playfair cipher encrypt message. "We live in a world full of beauty" use key "ANOTHER" [5]

OR

Q2) a) Draw and explain operational model of network security. [5]  
b) Explain the operation in key Expansion process in AES algorithm. [5]

Q3) a) Explain Cipher Feedback Mode(CFB) Block cipher. [5]  
b) What is weak key in DES algorithm? Explain with example. [5]

OR

Q4) a) Use RSA algorithm to encrypt the plaintext "3" use following parameters  $p = 11, q = 3, e \equiv 13$  [5]  
b) What is authentication? Explain various methods for authentication. [5]

Q5) a) Explain working of PGP algorithm in detail. [9]  
b) Explain the operation of Secure Socket Layer(SSL) protocol in detail. [8]

OR

Q6) a) Explain ISAKMP protocol of ISPEC [6]  
b) What is VPN? Explain types of VPN. [6]  
c) List and explain various participants involved in Secure Electronic Transaction(SET). [5]

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Q7) a) What are the challenges of intrusion detection. [6]

b) List and explain any two password management practices. [6]

c) What are the various characteristics of firewall. [5]

OR

Q8) a) Explain various types of firewall. [6]

b) Explain anomaly-based intrusion detection system. [6]

c) What is Trusted System. [5]

Q9) a) What is War dialing for remote connectivity? Explain software used for war dialing. [8]

b) Explain attacks and counter measures on application and data with examples. [8]

OR

Q10) a) What is VOIP hacking? What are the counter measures for it? [8]

b) Explain various hacking devices used for hacking. [8]

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