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B.E / B.Tech (Full Time) END SEMESTER EXAMINATIONS, Apr / May 2019

Computer Science and Engineering
Semester VII

CS8703 Security in Computing
(Regulation 2012)

Time: 3 Hours

Answer ALL Questions

Max. Marks 100

PART-A (10 x 2 = 20 Marks)

1. Name any two transposition ciphers.
2. How is the operation of Mix-Columns in AES performed?
3. List any two security worms.
4. How to avoid File access to subordinates in practice.
5. List the Email protocols.
6. What is VPN?
7. How inference is used as security threat?
8. What are the security requirements in database security?
9. List any two security standards.
10. Define Graham-Denning model.



Part – B (5 x 16 = 80 marks)
(Question No.11 is Compulsory)

11. i) Explain Simple DES in detail. (8)
- ii) Find $f(x) * g(x) \pmod{m(x)}$ over GF (2), given, $f(x) = X^6+X^4+X^2+X+1$, $g(x) = X^7+X+1$ and $m(x) = X^8+X^4+X^3+X+1$. (8)
12. a) i) List OWASP Top 10 Flaws. What vulnerabilities do they impose? (10)
- ii) Describe non malicious program errors and why is it a threat? (6)
- (OR)
- b) i) What are the vulnerabilities in Javascript? Using an example Javascript code, show how it is a concern for security vulnerability? (10)
- ii) Explain how SQLi is performed. (6)
13. a) i) Explain SSL and TSL in detail with clear diagrams. (8)
- ii) How does access control mechanism provide security in hierarchical ranking systems? Explain. (8)

(OR)

- b) i) Describe in detail, how honeypots help in securing systems? (8)
- ii) Write briefly on Intrusion Detection Systems. Explain its working model. (8)

14. a) i) List the security requirements in database and mention any one method that controls database operations in secure manner. (16)

(OR)

- b) Explain how monitors provide protection features in operating systems? (16)

15. a) Briefly describe i) Bell-LaPadula Confidentiality Model and (8)

- ii) Biba Integrity Model (8)

(OR)

- b) i) Describe in detail on any one Secure Frameworks. (16)

