



BRAINWARE UNIVERSITY

Library
Brainware University
308, Paschim Medinipur Road, Barasat
Kolkata, West Bengal-700125

Term End Examination 2023

Programme – B.Sc.(ANCS)-Hons-2020

Course Name – Threat Modeling, Risk Assessment and Management

Course Code - BNCSD501A

(Semester V)

Full Marks : 60

Time : 2:30 Hours

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group-A

(Multiple Choice Type Question)

1 x 15=15

1. Choose the correct alternative from the following :

- (i) This protocol or procedure that connects an ever-changing Internet Protocol (IP) address to a fixed physical machine address, also known as a media access control (MAC) address in a local-area network (LAN). Express it.
- a) MAC
b) SNMP
c) ARP
d) IPSec.
- (ii) A _____ provides a means by which remote computers communicate securely across a public WAN such as the Internet. Invent.
- a) NTLM
b) VPN
c) HTTP DIGEST
d) UDP.
- (iii) Cite the following technology provide Plain text of any length and counter party to provide Fixed length signature and a session key respectively:
- a) Symmetric cryptography.
b) Asymmetric cryptography.
c) Hash.
d) PRNG.
- (iv) Side Channel attacks are focused on extracting information from the _____ state of the computer. Identify.
- a) Physical
b) Logical
c) Solid
d) None of the above.
- (v) Cite that SPRUCE checklist does not contain:
- a) Risk.
b) Choices.
c) Evidence.
d) Program.
- (vi) Choose that FAIR has the following defined steps:
- a) Identify scenario components and Evaluate loss event frequency.
b) Estimate probable loss magnitude and Derive and articulate risk.
c) All of the above.
d) None of the above.
- (vii) Developer must implement _____ to design to minimize DoS risks for Denial of Service Threat. Interpret.

- a) Front Ends
 c) ♦ All of the above.
- b) Back Ends
 d) None of the above.
- (viii) Discover that rating ♦2 -OK♦ for Measuring Threat Models implies:
 a) DFD with ♦assets♦ (processes, data stores, data flows), users, trust boundaries.
 b) At least one threat per asset.
 c) Mitigations for threats above a certain risk level Current.
 d) ♦ All of the above.
- (ix) Distinguish the odd item pair for Threat Type and Mitigation
 a) Spoofing Authentication
 b) Information Disclosure Availability
 c) Elevation of Privilege Authorization
 d) None of the above.
- (x) Analyze that ♦Ping of Death♦ attack is actually termed as:
 a) TCP/IP DoS Attack.
 b) ICMP Attack.
 c) ♦ Both of the above.
 d) None of the above.
- (xi) When one security attack generated by a security exploit to gather information from or influence the program execution of a system by indirect effects of the system or its hardware rather than targeting the program or code directly, it is termed as _____. Recognize.
 a) Bot Attack.
 b) Repudiation Attack.
 c) ♦ Side Channel Attack.
 d) None of the above.
- (xii) The art of secret writing, invisible inks are an example of a _____ technique, as is altering the least significant bits of an image to carry a message. Predict.
 a) Sybil
 b) Steganography
 c) SSN
 d) SQL Injection
- (xiii) State the application-layer protocol for monitoring and managing network devices on a LAN or WAN.
 a) SNTP.
 b) ♦ SNMP.
 c) TCP.
 d) None of the above.
- (xiv) Decide the standard documents issued by the IETF.
 a) Root.
 b) ♦ Scamicry.
 c) RFC.
 d) SDL.
- (xv) Name the common way to represent flows between various participants of a process:
 a) Swim Lane Diagrams.
 b) UML.
 c) Both of the above.
 d) None of the above.

Group-B

(Short Answer Type Questions)

3 x 5=15

2. How one Attack Tree can be represented, please discuss. (3)
3. Write about Type Safe Language with Example. (3)
4. Interpret the Variants of Classic Brainstorming with Examples. (3)
- OR
- Report about Exchange Online Protection (EOP) Services with example. (3)
5. Explain Supply Chain Attackers. Mention the list of Supply Chain Attackers. (3)
- OR
- Illustrate about Attacker List? How OWASP addresses it? (3)
6. Justify Onion Routing. (3)
- OR
- Recognize the causes of Threat Modeling. (3)

Group-C

Library
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(Long Answer Type Questions)

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5 x 6 = 30

- 7. Suppose, one Financial Institution offers Payment Gateway for Online Banking. State the necessary DFD Diagram for an Ideal Threat Modeling Architecture. (5)
 - 8. Describe STRIDE and its usefulness. (5)
 - 9. Explain FAIR in details. (5)
 - 10. What is Trust Boundaries? Explain it with its usefulness. (5)
 - 11. Evaluate Individual Roles and Responsibilities for threat modelling to one Organization. (5)
 - 12. Explain Cloud Tenant Threats and Cloud Provider Threats with suitable examples. (5)
- OR**
- Classify different types of Cryptographic Primitives. (5)
