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Date : 15th April 2025
Batch : A1

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CCA Assignment 2

Q.1. Describe the Incidence object description format and how it helps in Incident response.

→ IODEF is an XML based standard for sharing cybersecurity incident data (eg. Attack details, impact) between organizations CERT or security team.

→ Structured elements like :

- (A) Incident ID, time, severity & Impact level
- (B) Attack methods like (malware, phishing, DDOS)
- (C) Contact info of reporting parties
- (D) Recommended actions (eg. patches & mitigations)

→ It helps in Incident response by :

- ① A Standardization : Ensure all parties report interpret data consistently (no ambiguity)
 - ② Automation : Enables tools to parse / process incidents faster
 - ③ Collaboration : Allows global teams / CERT to share threat intelligence
 - ④ Documentation : Creates a clear audit trail for compliance or post incident analysis
- Q.2 Which RFC's are published for the format
- ① RFC 7990 :
using XML as the source for multiple outputs (HTML, PDF, TXT)
 - ② RFC 7991 :
Specifies the XML v3 Vocabulary for authorizing RFCs ~~cat~~ enabling structured data.
 - ③ RFC 7992 : Outlines the HTML format for RFCs, improving web ~~see~~ readability

④ RFC 7994 :

Updates plain text RFC requirements, supporting ASCII and limited unicode

⑤ RFC 8650 :

marks the adoption of new formats (XML, HTML, PDFs) for RFCs from 2019 onwards.

Q.3 What are the advantages & disadvantages of the IODEF

→ Advantages:

① Standardization : Ensures consistent incident reporting across teams.

② Automation : speeds up data sharing via machine readable XML

③ Global collaboration : ~~Used~~ used by CERTs worldwide for threat intelligence

④ Flexibility : Supports custom extension for unique needs.

Disadvantages:

- ① Complex XML : Requires technical expertise to implement
- ② Post incident focus : Not ideal for real time threat detection.
- ③ Tool dependency : Needs compatible software for processing.
- ④ Set up overhead : Requires RTO for real time communication.