RAN-2511000903011005

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B.C.A. (NCF-NEP) (Sem.-III) Examination November - 2025

Major-1 : Network Security And Penetration Testing (TH)

[Total Marks: 25

સૂચના : / Instructions
(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book

Seat No.:

Student's Signature

Q.1. Choose the correct option (Any 4) **04**

1) Which layer of the OSI model ensures error-free delivery?
A. Data Link B. Network
C. Transport D. Session

2) Anomaly-based IDS works by
A. Comparing to known attack signatures
B. Detecting unusual patterns
C. Blocking URLs
D. Encrypting traffic

3) Wireless packets are captured in
A. Promiscuous mode B. Safe mode
C. Stealth mode D. Private mode

4) What is the final phase of a penetration test?
A. Exploitation B. Scanning
C. Reporting D. Enumeration

5) Nmap is used for
A. Password Cracking B. Network Scanning
C. Encryption D. VPN tunnelling

Q.2. Answer the following in short (Any 4) **04**

1) What is Firewall?
2) List out Common Network Threats.
3) What is Switches?
4) What is Penetration Testing?
5) What is Rogue AP Detection?

Q.3. Long Questions: **09**

(A) Explain the network Segmentation in details. **05**

OR

(A) Explain how Wireshark is used to analyse network traffic. **05**

(B) Explain WPA2 And WAP3 standards and their differences. **04**

Q.4. Long Questions: (Any Two) **08**

(A) Write a note on Hardware-Based Attacks.

(B) Write a detailed note on Manual Exploitation vs. Automated Exploitation

(C) Differentiate between IDS And IPS With examples.
