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BACHELOR OF COMPUTER APPLICATIONS (B.C.A.)
SPECIALIZATION IN CYBER SECURITY (CS)/
BACHELOR OF SCIENCE (CYBER SECURITY)
EXAMINATION : JUNE - 2025
SEMESTER - II
Sub: Cyber Security - I (BCA-245-18/BCA-CS-245-20)/
Cyber Security Level – I (BCAC23-204/BSCC24-204)

Date : 06/06/2025

Total Marks : 60

Time: 10.00 am To 12.30 pm

Instructions:

1. All questions are compulsory unless and otherwise stated.
 2. Bold figures to the right of every question are the maximum marks for that question.
 3. Candidates are advised to attempt questions in order.
 4. Answers written illegibly are likely to be marked zero.
 5. Use of scientific calculators, Log tables, Mollier Charts is allowed.
 6. Draw neat and labelled diagrams wherever necessary.
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Q.1. Fill in the blanks.

(5)

1. _____ is privately owned networks within a single building or campus of up to a few kilometers range in distance.
a) LAN
b) MAN
c) WLAN
d) WAN
2. _____ tells us which network the device is part of
a) Host ID
b) Node ID
c) Network ID
d) MAC ID
3. A _____ attached a given exe application to the Trojan executable.
a) wrapper
b) Virus
c) rootkit
d) spyware
4. An _____ attack employs spoofed SYN packets, with IP addresses forged to look like they come from within your network.
a) Teardrop
b) SYN
c) SMURF
d) LAND
5. Telnet protocol uses port number _____.
a) 23
b) 25
c) 80
d) 110

Q.2. State True/False.

(5)

1. Network bridge connects multiple network segments at the data link layer of the OSI model.
2. The Address 1270.0.0.1 is often used to refer to the local host.
3. Active reconnaissance involves probing the network to detect open ports.
4. Anti-spyware programs spy on you and sometimes even capture and transmit confidential information from your computer.
5. Integrity protects your message from being read by unauthorized recipients.

Q.3. Answer the following. (Solve any 5) (10)

1. Define the term "Computer Network".
2. Define the term "Virtual Port".
3. Define the term "White hack hacker".
4. Define the term "Exploit".
5. Explain the use of routers.
6. Define the term "Honeypot".
7. Define the term "Reverse Engineering".

Q. 4. Answer the following in detail. (Solve any 6) (30)

1. Explain in details any two types of network
2. Write a short note on IP address classes and structure.
3. Define the term "Technical Attacks". Explain any two types of technical attacks.
4. Write a short note on "TCP/IP 3 way handshake".
5. Write a short node on "Social Engineering".
6. Write a short note on "Reverse Engineering".
7. Write a short note on 1) Symmetric key cryptography b) Asymmetric key cryptography

Q. 5. Answer the following in detail. (Solve any 1) (10)

1. Explain in detail OSI 7 layer model
 2. Explain in detail any five types of topologies used in networking.
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