

Sub: Cyber Security - I (BCA – 245-18/BCA-CS-245-20/BCAC23-204)

Time: 10.00 am To 12.30 pm

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.

1. DNS protocol used port number _____.
a) 51
b) 25
c) 80
d) 110
2. Individuals who work both offensively and defensively at various times as per their benefits are known as _____ Hackers.
a) Black Hat
b) White Hat
c) Gray Hat
d) Blue Hat
3. _____ networks have a single communication channel that is shared by all the machines on the network.
a) Point-to-Point
b) Mobile
c) Broadcast
d) Wireless
4. _____ works by exploiting a feature of the Internet Protocol called TTL, or Time to Live.
a) Nslookup
b) Traceroute
c) telnet
d) Ping
5. Human-based _____ refers to person to person interaction to retrieve the desired information
a) Inference
b) Shoulder surfing
c) Social Engineering
d) Dictionary Attack

1. Shoulder Surfing involves the collecting of information by eavesdropping.
2. SMTP protocol used port number 25 to send email.
3. Ping sends out an ICMP Echo Request packet and awaits an ICMP Echo Reply message from an active machine.
4. Telnet command displays information that can be used to diagnose Domain Name System (DNS) infrastructure.
5. Punishment for the Tampering with Computer source documents is given under section 67 of IT Act 2000

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

1. Differentiate between “White hat hacker” and “Black hat hacker”.
2. What is smart mutation?
3. Define the term “Polymorphism”.
4. Define the term “Shoulder Surfing”.
5. Define the term "Inference".
6. Give the functionality of a Bridge in the Network.
7. Define the term Virtual Port with an example.

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

1. Define the term “Cryptography”. Explain in detail the process of “Steganography”.
2. Write a short note on ‘Social Engineering Techniques’
3. Define the term “Network”. Explain the following types of Networks; a) MAN b) WAN
4. Define the term “Malware”. Explain in detail any 2 types of malware.
5. Write a short note on “Honeypot”.
6. Explain the PING command in detail with options.
7. Explain the DoS and DDoS attacks.

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

1. Explain in detail TCP/IP 5 layer Model
 2. 1. Explain the following types of Malwares;
 - a) Virus
 - b) Worm
 - c) Trojan
 - d) Spyware
 - e) adware
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