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EXAMINATION : MAY- 2024 SEMESTER - II

Sub: Cyber Security - I (BCA – 245-18/BCAC23-204/BCA-CS-245-20) Date: 27/05/2024 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. **(5)** Q.1. Fill in the blanks. _, spans a large geographical area often a country or a continent. 1. a) WAN b) MAN c) LAN d) VAN 2. Individuals who work both offensively and defensively at various times as per their benefits are known as _____ Hackers. a) White Hat b) Black Hat c) Gray Hat d) Suicide 3. All the passwords of windows operating system are stored in _____ file a) Passwd b) system c) SAM d) kernal 4. attack, server is bombarded with IP fragments that have overlapping offset fields. a) Ping of Death b) Teardrop c) SYN d) LAND 5. is an action or event that might prejudice security. A threat is a potential violation of security a) threat b) Vulnerability d) eploit c) attack Q.2. State True/False. **(5)** MX record reveals the IP of the mail server 1 Nslookup is a program to query Internet domain name servers. 2. SIV monitor system files to find when an intruder changes. 3. Private key can be derived from Public key in A-symmetric key cryptography. 4. 5. COM1 & COM2 are the types of virtual ports. Q.3. Answer the following. (Solve any 5) (10)Define the term "Gray Hat Hacker".

- 2. Define the term "Exploit".
- 3. Define the term "Reverse Social Engineering".
- 4. Define the term "Dumpster Diving".
- 5. Define the term "DDoS attack".
- 6. Give the functionality of a Router in the Network.
- 7. What is use of Star topology?

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

(30)

- 1. What is subnetting? Explain with an example.
- 2. Explain the working of The "Three Way Handshake".
- 3. Define the term "Network". Explain the following types of Networks; a) LAN b) WAN.
- 4. Explain the following DoS Attacks; a) Ping of Death and b) Tear Drop Attack.
- 5. How is Malware propagated to other machines?
- 6. Write a short note on IP address classes and structures.
- 7. Explain the stages involved in the reverse engineering process.

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

(10)

- 1. Explain in detail working of 7 layer OSI model.
- 2. Explain in detail working of any 5 networking hardware components.

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