**POORNIMA UNIVERSITY, JAIPUR**

**END SEMESTER EXAMINATION, APRIL 2023**

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|  | **1BC2116** | Roll No. | Total Printed Pages: 1 |
| **1BC2116** |  |
| BCA I Year II Semester (Main/Back) End Semester Examination, April 2023  **(Cyber Security)** | |
| **BCYCCA2105 : Network Defence for Cyber Security** | | | |

# Time: **3** Hours. Total Marks: **60**

Min. Passing Marks: **21**

Attempt **five** questions selecting one question from each Unit. There is internal choice from Unit I to Unit V. Marks of each question or its parts are indicated against each question / parts. Draw neat sketches wherever necessary to illustrate the answer. Assume missing data suitably (if any) and clearly indicate the same in the answer.

Use of following supporting material is permitted during examination for this subject.

# **1.--------------------------Nil--------------------** **2.------------------Nil-----------------------**

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|  |  | **UNIT-I (CO1)** | **Marks** | **Bloom Level** |
| **Q.1** | **(a)** | State the reasons why coaxial cable is providing better performance than twisted pair cable. Also describe the characteristics for both types of cables. | **(6)** | Explain |
|  |  |  |  |  |
|  | **(b)** | For n devices in a network, what is the number of cable links required for a mesh topology? Assume 6 devices are arranged in a mesh topology. How many cables are needed? | **(6)** | Apply |
|  |  | **OR** |  |  |
| **Q.2** | **(a)** | Describe advantages and disadvantages of using optical fiber. | **(6)** | Remember |
|  |  |  |  |  |
|  | **(b)** | Explain the bus type topology and ring type topology networks. Compare their performance. | **(6)** | Understand |
|  |  | **UNIT-II (CO2)** |  |  |
| **Q.3** | **(a)** | Describe System based cyber-attacks by taking suitable examples. | **(6)** | Remember |
|  |  |  |  |  |
|  | **(b)** | Briefly Explain how data link layer provides error control and flow control. | **(6)** | Apply |
|  |  | **OR** |  |  |
| **Q.4** | **(a)** | Differentiate between IPv6and IPv4 Addresses. | **(6)** | Remember |
|  |  |  |  |  |
|  | **(b)** | Describe web based cyber-attacks by taking suitable examples. | **(6)** | Remember |
|  |  | **UNIT-III (CO3)** |  |  |
| **Q.5** | **(a)** | Briefly explain the components and process used in End Point Security establishment. | **(6)** | Explain |
|  |  |  |  |  |
|  | **(b)** | Enlist various functions provided by Network Access Control system. | **(6)** | Understand |
|  |  | **OR** |  |  |
| **Q.6** | **(a)** | Explain Host based Intrusion Detection system | **(6)** | Explain |
|  |  |  |  |  |
|  | **(b)** | Describe real time applications of using firewall. | **(6)** | Understand |
|  |  | **UNIT-IV (CO4)** |  |  |
| **Q.7** | **(a)** | Enlist the steps of capturing Http password using wireshark. | **(6)** | Apply |
|  |  |  |  |  |
|  | **(b)** | Write tcpdump command to Capture packets for host 192.168.1.100 and port 80 and write the captured packets details in a separate file. | **(6)** | Apply |
|  |  | **OR** |  |  |
| **Q.8** | **(a)** | Describe various cyber security techniques which can be used for to monitor security in wireless networks. | **(6)** | Explain |
|  |  |  |  |  |
|  | **(b)** | Enlist various utilities used for finding vulnerabilities for network, websites etc. | **(6)** | Explain |
|  |  | **UNIT V (CO5)** |  |  |
| **Q.9** | **(a)** | Explain desired characteristics and Benefits of Using a Unified Threat Management System. | **(6)** | Explain |
|  |  |  |  |  |
|  | **(b)** | Briefly state the significance of using Software Defined Networking. Also specify the SDN architecture. | **(6)** | Explain |
|  |  | **OR** |  |  |
| **Q.10** | **(a)** | Why is SIEM important? How does SIEM work? | **(6)** | Apply |
|  |  |  |  |  |
|  | **(b)** | Describe working of TLS and TLS Handshake in action by taking suitable example. | **(6)** | Apply |