**POORNIMA UNIVERSITY, JAIPUR**

**END SEMESTER EXAMINATION, April 2023**

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|  | **1BC2136** | Roll No. | Total Printed Pages: 1 |
| **1BC2136** |  |
| BCA I Year II-Semester (Back) End Semester Examination, April 2023  **(All Spl.)** | |
| **BCSCCA2104: Introduction to Cyber Security** | | | |

# Max. Time: **3** Hours. Max. 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. ----------------------------------------------** **2. -----------------------------------------**

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|  |  | **UNIT-I (CO1)** | **Marks** |
| **Q.1** | **(a)** | A new private university is setting up its internet and intranet network and as a cyber-security expert you have been asked to give a brief on the 7 layers in network, their threats associated and their respective preventive measures. | **(6)** |
|  |  |  |  |
|  | **(b)** | Write a note on the following terms:  a) Copyrighting Issues b) Trade Secrets c) Exploits | **(6)** |
|  |  | **OR** |  |
| **Q.2** | **(a)** | Define the following terms:  a) Switches b) Circuit switching c) Packet switching | **(6)** |
|  |  |  |  |
|  | **(b)** | Describe the 2 network architecture and give a brief on network topology. | **(6)** |
|  |  | **UNIT-II (CO2)** |  |
| **Q.3** | **(a)** | A wholesale retailer shifted his business online and he uses mails for all his communication to his clients and dealers. He accidently opens a spurious mail and his computer is locked out. Examine the type of attack used by the hacker and what should he have done to prevent it? | **(6)** |
|  |  |  |  |
|  | **(b)** | Elucidate the different malware attacks | **(6)** |
|  |  | **OR** |  |
| **Q.4** | **(a)** | Explain active and passive sniffing attacks in detail, | **(6)** |
|  |  |  |  |
|  | **(b)** | Distinguish between internal and external threats. | **(6)** |
|  |  | **UNIT-III (CO3)** |  |
| **Q.5** | **(a)** | What do you mean by Cryptography? Explain the types of encryption Algorithms | **(6)** |
|  |  |  |  |
|  | **(b)** | Describe Identification, Authentication, and Authorization | **(6)** |
|  |  | **OR** |  |
| **Q.6** | **(a)** | Critically analyze Network Intrusion Detection System (NIDS) in detail | **(6)** |
|  |  |  |  |
|  | **(b)** | Write a short note on the harms of data loss for business and individual. | **(6)** |
|  |  | **UNIT-IV (CO4)** |  |
| **Q.7** | **(a)** | Draw the application security testing tool pyramid and describe 1) Dynamic automated testing 2) Static manual testing. | **(6)** |
|  |  |  |  |
|  | **(b)** | What are the common types of attacks on web applications | **(6)** |
|  |  | **OR** |  |
| **Q.8** | **(a)** | Explain any 4 protocols to secure the virtual private network | **(6)** |
|  |  |  |  |
|  | **(b)** | Explain in detail wireless DoS attack | **(6)** |
|  |  | **UNIT V (CO5)** |  |
| **Q.9** | **(a)** | Explain how does TLS work? | **(6)** |
|  |  |  |  |
|  | **(b)** | Enlist the Sequence of events for transactions using SET. | **(6)** |
|  |  | **OR** |  |
| **Q.10** | **(a)** | Write a note on types of Virus and explain virus phases. | **(6)** |
|  |  |  |  |
|  | **(b)** | What do you mean by trusted systems? Explain in detail. | **(6)** |