


| Name: | |  | |
|---|---|--|-----|
| Enrolment No: | | | |
| UNIVERSITY OF PETROLEUM AND ENERGY STUDIES End Semester Examination, December 2022 | | | |
| Course: B.Tech (CSE+CSF) | | Semester: III | |
| Program: Information Security Fundamentals | | Time: 03 hrs. | |
| Course Code: CSSF2001 | | Max. Marks: 100 | |
| Instructions: | | | |
| SECTION A (5Qx4M=20Marks) | | | |
| S. No. | | Marks | CO |
| Q 1 | What does Information security protect? | 4 | CO1 |
| Q 2 | Define deming cycle? | 4 | CO1 |
| Q 3 | What does CIA stand for? | 4 | CO1 |
| Q 4 | Analyze Risk Mitigation? | 4 | CO1 |
| Q 5 | Define cost vs benefits analysis? | 4 | CO1 |
| SECTION B (4Qx10M= 40 Marks) | | | |
| Q 6 | Define types of Cryptography in detail. | 10 | CO2 |
| Q 7 | What are the objectives of cryptographic controls? Define in detail. | 10 | CO2 |
| Q 8 | Distinguish among authentication, non-repudiation, and access control through cryptography. | 10 | CO3 |
| Q 9 | Define application security and its techniques. OR Differentiate between symmetric algorithms and asymmetric types of algorithms. | 10 | CO3 |
| SECTION-C (2Qx20M=40 Marks) | | | |
| Q 10 | Define operating system and its type. Construct protection against types of malwares to operating system. | 20 | CO4 |
| Q 11 | What is Web application and Mobile application Security? Identify Vulnerabilities in Web application systems and present the Security techniques. | 20 | CO4 |

| | | | |
|--|---|-----------|------------|
| | Or | | |
| | Justify GRC, GRC pillars, value of GRC to business, benefits of GRC, tools for GRC, and its implementation in real world. | 20 | CO5 |