

Roll No: -----

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, Dec. 2017



Program Name: M. Tech. CS
Course Name : CYBER SECURITY AND ETHICS
Course Code : CSCS 7002
No. of page/s: 2

Semester – I
Max. Marks : 100
Duration: 3 Hrs.

Notes and Instructions:

- 1. Section A - 20 marks (Attempt All 4 Questions). (5 marks each)**
- 2. Section B - 40 marks (Attempt All 4 Questions). (10 marks each)**
- 3. Section C - 40 marks (Attempt All 2 questions). (20 marks each)**

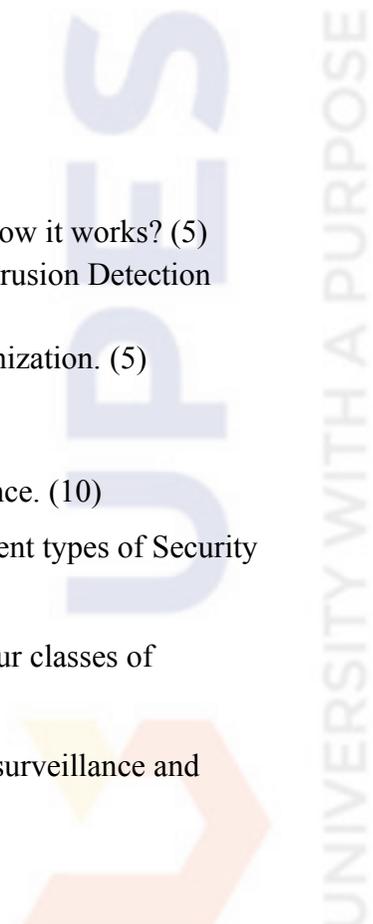
Section A - 20 marks (Attempt All 4 Questions in this Section). (5 marks each)

1. List various security oriented characteristics of data. (5)
2. Explain the significance Digital Signature in privacy preservation? How it works? (5)
3. How Physical security of IT assets is ensured by using CCTV and intrusion Detection Systems? (5).
4. Why Policy on WWW is necessary in achieving the goals of an organization. (5)

Section B - 40 marks (Attempt All 4 questions). (10 marks each)

5. Explain the importance and implementation of Information Governance. (10)
6. Why security policy is mandatory in today's scenario? Specify different types of Security Policy. (10)
7. Distinguish between Vulnerabilities, Threats and Attacks. Discuss four classes of Attacks. (10)
8. Explain Cyber ethics and its different aspects. Discuss how advance surveillance and customer profiling is breaching privacy in cyber space. (10)

Section C - 40 marks (Attempt All 2 questions). (20 marks each)



9. Why we need Secure Information System? What necessary changes should be made in development of Secure Information Systems? (5+15)

Or

Specify types of Enterprise information systems. Can you augment Software Development Life Cycle to accommodate ERP development? (5+15)

10. Enumerate and describe various Risk Analysis Methods? Explain in Detail. Describe various risk mitigation approaches with reference to Risk Management. (10+10)



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Section A - 20 marks (Attempt All 4 Questions). (5 marks each)

1. Explain key concepts behind cipher text. How Public Key cryptography helps in achieving the confidentiality characteristics of data? (5)
2. Describe the term Backup Security Measures and justify its necessity (5)
3. Describe the similarity and Difference in Trojan-Horse and Worms. (5)
4. Why an organization needs a security policy? Why it is required to publish and notify Security Policy? (5)

Section B - 40 marks (Attempt All 4 Questions). (10 marks each)

5. How CIA is related to Information assurance? Explain with reference to a production industry. (10)
6. How Copyright law and Intellectual Property Law are helpful in protecting original work of authors? Explain by using key features of Copyright and IP laws. (10)
7. Distinguish between Vulnerabilities, Threats and Attacks. Discuss variety of Threats. (10)
8. What makes up a cyber-crime? How cyber-crime is a challenge to Intellectual Property rights and copy rights?



Section C - 40 marks (Attempt All 2 questions). (20 marks each)

9. Attempt Following:

- a. Cyberspace is affecting community in profound manners. Explain (10)
- b. Explain Digital Rights Management components and Architecture. (10)

Or

Enumerate and describe various Risk Analysis Methods? Explain in Detail. Describe various risk mitigation approaches with reference to Risk Management. (10+10)

10. Outline threats to Electronic Payment System, e-Cash, Credit/Debit Cards. How will you ensure Physical Security of IT Assets? (10+10)

