

Name:	
Enrolment No:	

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, May 2022

Course: IT Security Evaluation Criteria
Program: B. Tech (IT Infrastructure)
Course Code: CSSF4003

Semester: VI
Time : 03 hrs.
Max. Marks: 100

Instructions:

- **Section A** has 5 Questions of 4 marks each.
- **Section B** has 4 Questions for a total of 10 marks each, write brief notes, examples with diagrams.
- **Section C** has choice of 2 Questions for a total of 20 marks, mention answers, examples with diagrams.
- Use white A4 with black gel-pen; write clearly with diagrams to illustrate your answers.
- If the answer is more than one page long, mention the section & answer number on each page.

SECTION A
(5Qx4M=20Marks)

S. No.		Marks	CO
Q 1	Describe the overview and evaluation of Common Criteria (CC). What is the full name of ISO/IEC on which Common Criteria is based?	4	CO1
Q 2	Mention at least four classes of security functional requirements.	4	CO1
Q 3	What do you understand by Security Assessment Requirements? Mention at least four classes.	4	CO1
Q 4	Give at least eight types of common threats to IT products.	4	C02
Q 5	Define the terms with an example each: a. Availability b. Identification c. Authentication d. Authorization	4	C04

SECTION B
(4Qx10M= 40 Marks)

Q 6	a. Illustrate the differences between Vulnerability Assessment & Penetration Testing. Give examples with diagrams. b. Describe the Business processes in Penetration Testing? Describe the types of Penetration Test engagements.	10	CO1
-----	--	-----------	------------

Q 7	<p>a. Describe what you understand by ToE Architecture.</p> <p>b. What do you understand by Target of Evaluation, its functionality?</p>	10	CO3
Q 8	Describe the need for IT Security Evaluation Criteria with key controls.	10	CO2
Q 9	<p>Describe the following terms with at least one real-world example:</p> <p>i. Asset</p> <p>ii. Vulnerability</p> <p>iii. Threat</p> <p>iv. Risk</p> <p>v. Protection Profile</p> <p style="text-align: center;">OR</p> <p>Provide an overview and understanding of Common Criteria and why should we evaluate products?</p>	10	CO2
<p>SECTION-C (2Qx20M=40 Marks)</p>			
Q 10	<p>Define and analyze in details Assurance Evaluation, Assurance Effectiveness and Assurance Correctness with examples?</p> <p style="text-align: center;">OR</p> <p>a. Illustrate and apply your understanding of Cybersecurity Regularity Compliance with examples?</p> <p>b. Describe the steps followed in the Compliance program?</p> <p>c. Describe GRC and explain at least two standards and their functions.</p>	20	CO3
Q 11	<p>a. Describe Protection Profiles and Process of Evaluation with examples.</p> <p>b. Illustrate and describe the Common Criteria Evaluation & the Validation Scheme security framework?</p> <p>c. Explain the phases of Attack Methodology during Pen Testing.</p>	20	CO4