

Name:

Enrolment No:



UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, December 2018

Course: Information Security Fundamentals

Programme: B.Tech CSE-CSF

Time: 03 hrs.

Instructions: All Questions are Compulsory.

Semester: III

CSSF2001

Max. Marks: 100

SECTION A

S. No.		Marks	CO
Q 1	Illustrate Authentication and Authorization Information Security Elements with examples.	4	CO2
Q 2	Explain different type of assets, which are identified in process of Operations Security.	4	CO2
Q 3	Explain different Secure Network Administration Principles and Tools.	4	CO1
Q 4	Explain the following terms- a) Cross Site Request Forgery b) LDAP	4	CO2
Q 5	What do you understand by log? List types of sources of logs.	4	CO4

SECTION B

Q 6	Explain different types of data classification with different algorithm and techniques used in each.	10	CO3
Q 7	“Organization implemented the network security but still physical security is major concern.” Comment on the statement and explain various technical control methods for physical security.	10	CO4
Q 8	Illustrate the various types of operating system.	10	CO2
Q 9	Explain Log Management under following heads: (i) Meaning of Logs (ii) Log Sources and types. OR Explain different types of Auditing Standards.	10	CO4

SECTION-C

Q 10	"Over the last decade, the capabilities of a database have increased exponentially and it has become more complex as well. This growth has created many problems For both the users and architects of these products" Comment on the statement and explain different types of vulnerabilities in Database and how Database can be secured along with the techniques for securing it.	20	CO2
Q 11	"Information Security audit is a continual process. An Organization's information can be secured well, if and only if the process of security Audit is repeated periodically" Explain the Information Security Audit along with different Audit Drivers. Also different types of Audit along with Information Security Audit	20	CO4

process.

OR

Explain Log Management under following heads:

- (i) Logs
- (ii) Log Sources and types.
- (iii) Functions of Log Management
- (iv) Log Storage
- (v) Challenges in Logging

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Name of the School <small>(Please tick, symbol is given)</small>	:	SOE		SOCS	<input type="checkbox"/>	SOP	
Programme	:	B.Tech CSE-CSF					
Semester	:	III					
Name of the Course	:	Information Security Fundamentals					
Course Code	:	CSSF 2001					
Name of Question Paper Setter	:	Nitika Goenka					
Employee Code	:	40001793					
Mobile & Extension	:	+91-8076104732					
<p>Note: Please mention additional Stationery to be provided, during examination such as Table/Graph Sheet etc. else mention "NOT APPLICABLE":</p>							
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Date of Examination	:						
Time of Examination	:						
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Note: - Pl. start your question paper from next page

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SECTION A

S. No.	Question	Marks	CO
Q 1	Illustrate Accountability and Auditing Information Security Elements with examples.	4	CO2
Q 2	A friend sends an electronic Hallmark greeting card (e-card) to your work email. You need to click on the attachment to see the card. What should you do?	4	CO3
Q 3	Explain and Differentiate between Vulnerability Scanning and Penetration Testing.	4	CO1
Q 4	Explain the following terms- a) SQL Injection b) Hopscotch	4	CO2
Q 5	Comment your understanding about following sample logs: (1) 2006-09-19 03:04:29 OPEN TCP 192.168.72.12 10.20.72.204 3599 445 (2) 2006-09-20 10:38:21 DROP TCP 192.168.72.196 10.20.72.12 445 2459 48	4	CO4

SECTION B

Q 6	Explain different types of Cryptography in detail.	10	CO3
Q 7	Explain the requirements and phases during Cost Benefit Analysis.	10	CO2
Q 8	“The causes of physical security can be either natural or man-made.” Discuss the different security issues associated with physical security.	10	CO4
Q 9	What is Application Security? Explain various tools and techniques used for Application Security. OR “SDLC is a process used by software industry to release high quality software in the market”. Give a brief description of secure software development.	10	CO2

SECTION-C

Q 10	Differentiate between Web Application Security and Mobile Application Security. Explain about various vulnerabilities and risks involved in both.	20	CO2
Q 11	"GRC is an integrated approach for improving governance through more effective compliance and a better understanding of the impact of risk on Business performance. It is used by corporations to act in risk." What are various GRC Pillars? Explain the benefits of GRC along with tools for GRC.	20	CO4

OR

"Information Security audit is a continual process. An Organization's information can be secured well, if and only if the process of security Audit is repeated periodically" Explain Audit Drivers and Information Security Audit process. Write down various security audit standards.