


Name:			
Enrolment No:			
UNIVERSITY OF PETROLEUM AND ENERGY STUDIES End Semester Examination, December 2022			
Course: IT System Security and Physical Security		Time : 03 hrs.	
Semester: III		Max. Marks: 100	
Program: B.Tech. CSE-CSF			
Course Code: CSSF 2009			
Instructions: <ul style="list-style-type: none"> This examination paper contains ELEVEN (11) Questions. You must answer ALL THE QUESTIONS. Please read all questions carefully and make sure you understand the question before you begin answering. 			
SECTION A (5Qx4M=20Marks)			
S. No.		Marks	CO
Q 1	Define physical security.	4	CO1
Q 2	Cyber security and physical security go hand in hand. Justify.	4	CO1
Q 3	Classify types of fire extinguishers.	4	CO4
Q 4	Recognize the utility of firewalls in IT system security.	4	CO5
Q 5	Define the terms root kits, port scanning and denial of service attack.	4	CO5
SECTION B (4Qx10M= 40 Marks)			
Q 6	List various threats posed under Physical security.	10	CO2
Q 7	Define hash functions and list properties.	10	CO4
Q 8	Defend the statement “CIA is one of the most important models in Network Security”.	10	CO3
Q 9	List and explain two major encryption techniques with an example. Or Define and contrast digital certificates and digital signatures.	10	CO5
SECTION-C (2Qx20M=40 Marks)			
Q 10	Explain RSA. Perform encryption and decryption using RSA algorithm for the following $P = 11; q = 13; e = 11; M = 7.$	20	CO5

Q 11	<p>Recognize that some countermeasures are ideals and may not be feasible if, for example, your organization is housed in an old building. Suggest recommendations considering the Physical and IT system security in mind.</p> <p style="text-align: center;">Or</p> <p>Explain multi-factor authentication. List various levels of Physical Security and relate them to real life scenarios.</p>	20	CO3