


<b>Name:</b>	
<b>Enrolment No:</b>	

**UNIVERSITY OF PETROLEUM AND ENERGY STUDIES**  
**Supplementary Examination, Dec 2023**

<b>Program Name : M.Tech CSE</b>	<b>Semester : 1<sup>st</sup></b>
<b>Course Name : Data Security</b>	<b>Time : 3 hrs</b>
<b>Course Code : CSCS 7001</b>	<b>Max. Marks : 100</b>
<b>Nos. of page(s) : 2</b>	

**Instructions: Read and follow the instructions written on the answer sheet front page**

**SECTION A**  
**(5Qx4M=20Marks)**

S. No.		Marks	CO
Q 1	Summarize the important characteristics of a Malware.	4	CO3
Q 2	Explain the various types of Bluetooth attacks.	4	CO2
Q 3	Strategize at least four ways to minimize privacy and security concerns.	4	CO1
Q 4	Differentiate between stateless and stateful packet filtering firewall.	4	CO5
Q 5	Differentiate between Virus, Worm and Trojan horse.	4	CO1

**SECTION B**  
**(4Qx10M= 40 Marks)**

Q 6	Explain data security and its importance. Also discuss data security lifecycle.	10	CO3
Q 7	Discuss the following: a) Exploit and payload b) Threat intelligence lifecycle	10	CO5
Q 8	Differentiate between IDS and IPS. Mention various advantages and disadvantages of honeypot.	10	CO4
Q 9	Define cryptographic attacks. Discuss any eight types of cryptographic attacks.  <p style="text-align: center;">OR</p> Discuss the important database security threats and vulnerabilities along with their countermeasures.	10	CO2

**SECTION-C**  
**(2Qx20M=40 Marks)**

Q 10	Explain the following in detail: a) Spoofing b) Impersonation c) Message confidentiality threats	20	CO2
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	<p>d) Message integrity threats</p> <p style="text-align: center;">OR</p> <p>a) Website attacks  b) DMZ  c) Log management  d) Phishing attack</p>		
Q 11	Describe the methodology and defense mechanism of a Rainbow attack. How does it differ from a Dictionary attack? Also discuss the various types of Brute force attacks.	[8+4+8]	CO3