

Name:

Enrolment No:



UNIVERSITY OF PETROLEUM AND ENERGY STUDIES  
End Semester Examination, December 2020

Course: IT Business Continuity & Disaster Recovery Planning  
Program: B. Tech CSE+CSF  
Course Code: CSSF 4002P

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

SECTION A

1. Each Question will carry 5 Marks

2. Instruction: Complete the statement / Select the correct answer(s)

S. No.			CO				
Q 1	<p>John is the security administrator for company X. He has been asked to oversee the installation of a fire suppression sprinkler system, as recent unusually dry weather has increased the likelihood of fire. Fire could potentially cause a great amount of damage to the organization's assets. The sprinkler system is designed to reduce the impact of fire on the company.</p> <p>In this scenario, the sprinkler system is considered as _____?</p> <p>A fiber-optic cable running between two buildings being cut by a maintenance worker affects only the cable and the productivity for its cut, which might be only 40% of the organization's infrastructure. Calculate EF for the given asset.</p> <p>a. Recovery action, 0.20% b. Risk assessment, 0.30% c. Countermeasures, 0.40% d. Risk analysis, 0.50%</p>		CO1, CO2				
Q 2	<p>Consider a scenario that threat possible in a fiber-optic cable asset that is running between two buildings is being cut by a maintenance worker affects only the cable and the productivity for its cut, which might be only 20% of the organization's infrastructure. The asset value is \$15,000. Calculate Single Loss Expectancy (SLE).</p> <p>a. \$5000 b. \$1500 c. \$3000 d. \$2500</p>		CO3				
Q 3	<p>Match the following terms:</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Column A</th> <th>Column B</th> </tr> </thead> <tbody> <tr> <td>1. Reciprocal site</td> <td>A. They are usually partially owned premises that can be used for less critical processes during normal business operations. The warm sites have</td> </tr> </tbody> </table>	Column A	Column B	1. Reciprocal site	A. They are usually partially owned premises that can be used for less critical processes during normal business operations. The warm sites have		CO2
Column A	Column B						
1. Reciprocal site	A. They are usually partially owned premises that can be used for less critical processes during normal business operations. The warm sites have						

			everything required to sustain the business. This site will be utilized to run critical business operations during any disruptive event.			
		2. Warm site	B. It is an agreement with an internal or external site. If the site is in the same geographical area, then there is a possibility of disruption to the reciprocal site also if any disaster strikes. Whereas it is located at some other place then the reciprocal site could be a help in such cases of disruption.			
		3. Cold site	C. They are usually transported to another location in case of emergency. The unit will be transported by truck to a mobile location. This could be an alternate working site.			
		4. Hot site	D. The site starts up after the disruptive event. This site is the least expensive in the category. The BCM & DR plan should have the details of a cold site and how and where the cold site should be established.			
		5. Mobile site	E. This is sometimes a less expensive approach than that of the mirrored site. It is a leased site that can be helpful during emergency situations and will provide the same facilities and support as that of the company to continue services in emergency cases.			
		a. 1-B, 2-A, 3-D, 4-E, 5-C. b. 1-A, 2-C, 3- E, 4-B, 5-D c. 1-C, 2-B, 3-A, 4- D, 5-E d. 1-E, 2-D, 3-C, 4-A, 5-B e. 1-D, 2-E, 3-B, 4-C, 5-A				
Q 4	Business enablers are _____, _____ & _____. To protect against a disaster or other site-specific problem, many people choose this method to back-up their media. The location can be as simple as the System Administrator’s home office or as sophisticated as a disaster hardened, temperature controlled, high security bunker that has facilities for backup media storage. This type of backup system is known as _____, _____. The final approval of the business continuity plan is given by _____.				CO4	

Q 5	<p>Consider a scenario that threat possible in a fiber-optic cable asset that is running between two buildings is being cut by a maintenance worker affects only the cable and the productivity for its cut, which might be only 20% of the organization's infrastructure. This threat generally occurs in every 4 year. The asset value is \$25,000. Calculate Annualized Loss Expectancy (ALE).</p> <p>a. \$1200 b. \$1250 c. \$1500 d. \$1150</p>		CO3
Q 6	<p>The terms RPO, NAS, WRT, RFP, RFQ are expanded as _____, _____, _____, _____, _____ respectively.</p>		CO2, CO4
<b>SECTION B</b>			
<p><b>1. Each question will carry 10 marks</b> <b>2. Instruction: Write short / brief notes</b></p>			
Q 7	Elaborate the different data backup types and data backup methods.		CO4
Q 8	<p>Explain business continuity planning lifecycle with the help of diagram.</p> <p style="text-align: center;">OR</p> <p>Explain all the five phases of Business Continuity Management and Disaster Recovery.</p>		CO1
Q 9	Explain the difference between Risk Assessment and Business Impact Analysis. What are the benefits of BIA?		CO2, CO3
Q 10	What factors/practices helped the investment company to recover from the incident. Explain your answer.		CO4
Q 11	Explain business requirements, functional requirements, and technical requirements in project definition.		CO3
<b>SECTION C</b>			
<p><b>1. Each Question carries 20 Marks.</b> <b>2. Instruction: Write long answer.</b></p>			
Q 12	<p>Explain the different phases of disaster with the help of examples. What do you understand by Business Continuity &amp; Disaster Recovery? Explain different types of disaster.</p> <p style="text-align: center;">OR</p> <p>In below table, different assets like network operations center, web servers, web data and customer data are given with their value, Exposure factor (EF) and Annualized Rate of Occurrence (ARO). Calculate Single-Loss Expectancy (SLE) and Annualized Loss Expectancy (ALE) of all the given assets.</p>		CO1, CO3

Asset	Threat	Asset Value	EF	SLE	ARO	ALE
Network Operations Center	Fire	\$500,000	0.45		0.2	
Web Servers	Power Failure	\$25,000	0.25		0.5	
Web Data	Virus	\$150,000	0.33		1	
Customer Data	Disclosure	\$250,000	0.75		0.66	