UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, Dec 2021

Course: Statistics for Data Science   **Semester: V**
Program: B. Tech-DOPS_CSDV2005   **Time: 03 hrs.**
Course Code: CSDV2005   **Max. Marks: 100**

Instructions:

SECTION A

1. Each Question will carry 4 Marks
2. Instruction: Write short answers for the following questions. (60-70 words)

S. No.		Marks	CO
Q1	Bring out the importance of Soft Skills in Agile.	4	CO1
Q2	Describe the benefits of using Scrum.	4	CO3
Q3	Bring out the importance of: Sprint Planning, Daily Scrum, Sprint Review, Sprint Retrospective.	1 1 1 1	CO5
Q4	Describe different Scrum Roles.	4	CO4
Q5	List the problems with traditional development and operations.	4	CO2

SECTION B

1. Each question will carry 10 marks
2. Instruction: Write short / brief notes (100 -150 words)
3. For question 9 choose between part a and b.
4. Attempt any one question for question 9.
5. There is no such option for other questions in this section.

Q6	Explain in your own words what is extreme programming? Provide suitable examples.	7 3	CO1
Q7	Explain the principles of DevOps? Explain how it is connected to Agile?	5 5	CO3
Q8	Elaborate the core principles of pair programming? Provide suitable examples.	6 4	CO2
Q9	Explain what is CI and CD (Continuous Integration and Continuous Delivery)? Also provide a rationale for the correlation between CI and CD?	5 5	CO4/CO5

Please Turn Over

	OR Explain what is the DSDM and its lifecycle? Analyze and explain all the elements of MOSCOW?	**5** **5**	

SECTION-C

1. **Each Question carries 20 Marks.**
2. **Instruction: Write long answer. (Up to 350 words while explaining)**
3. **For question 11 choose between part a and b**
4. **Attempt any one question for question 11.**
5. **There is no such option for other question 10.**

Q10.	Given a list in python ['abcd', 786, 2.23, 'John', 70.2]
	   a. What is the output of print list [1:3]?
	   b. What is the output of print list1 + list2, if list1 = ['abcd', 786 , 2.23, 'john', 70.2] and list2 = [123, 'john']?
	   c. What is the output of print list1[3:] + list2[2:]
	   d. Discuss methods to add new elements to a list in Python. Provide examples?
		5
		5
		5
		5
			CO3, CO4, CO5

Q11.	Elaborate is the difference between tuples and lists in Python? Explain the meaning of mutable and immutable data structures in Python? Discuss the mutability/immutability of lists and tuples in Python? **OR** What are Python's dictionaries? How can you create a Dictionary in Python - give example?	**6** **7** **7** **10** **10**	**CO3, CO4, CO5**

Please Turn Over