UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, April/May 2018

Course: Spatial Data Modeling and Analysis   **Semester: VIII**
Program: B.Tech CSE OGI
Time: 03 hrs.   **Max. Marks: 100**

Instructions: All Question are compulsory and attempt all question in the same order of question paper

S. No.	SECTION A	Marks	CO
Q 1	State Tobler's first law of Geography? Define the concept of spatial auto-correlation?	4	CO1
Q 2	What do you understand by MAUP?	4	CO3
Q 3	What do you understand by spatial diffusion?	4	CO3
Q 4	What do you understand by Kriging? What is the difference between Kriging and IDW?	4	CO2
Q 5	What are the difference between scaling and sampling	4	CO2
	SECTION B		
Q 6	Explain Raster Data Model? With appropriate example, explain routing and allocation?	10	CO4
Q 7	What are the different geo regression analysis model used in spatial analysis?	10	CO3
Q 8	What are the various issued faced by analysist while performing spatial analysis?	10	CO3
Q 9	Derive the formula to calculate correlation coefficient r? **or** Design the following Coverage model for UPES Campus	10	CO5,CO1
	SECTION-C		
Q 10	What do you understand by Spatial Regression? Design different steps required in determining the extent of spatial autocorrelation in once data and performing spatial regression on it?	20	CO5

Q 11	Explain the following concepts:
	   a) Digital elevation Model
	   b) Clip Intersect, Union and Difference
	   c) Proximity Analysis
	      or
	   d) Overlay Analysis
		6,6,8	CO1,CO2,CO3