Name: **Enrolment No:**	UPES UNIVERSITY WITH A PURPOSE

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, December 2019

Course: GIS & Satellite Navigation System **Semester: V**
Program: B. Tech. GSE **Time 03 hrs.**
Course Code: PEGI 3002 **Max. Marks: 100**

Instructions:

S. No.		Marks	CO
	SECTION A		
Q 1	Write short notes on GIS vs. Information System.	**4**	**CO1**
Q 2	List advantages of quad-tree GIS data model.	**4**	**CO3**
Q 3	With examples explain automatic classification - spatial analysis of raster data.	**4**	**CO3**
Q 4	List functions of DBMS.	**4**	**CO4**
Q 5	What are the sources of GPS errors.	**4**	**CO5**
	SECTION B		
Q 6	With illustrations and examples, discuss GIS object data model and structure.	**10**	**CO3**
Q 7	Write short notes on UTM map projection. Briefly discuss three and seven parameters methods of datum transformation.	**5 + 5**	**CO2**
Q 8	Discuss with illustrations, various methods of vector overlay spatial analysis.	**10**	**CO3**
Q 9	Describe with example, relational database model.	**10**	**CO4**
	OR		
	Explain with diagram and empirical relationships the principle of calculating the position with Satellite Navigation System.		**CO5**
	SECTION-C		
Q 10	Discuss with example and empirical relationships, raster based terrain curvature spatial analysis method. Give an detail account of secondary topographic attributes / indices derived from DEM	**10 + 10**	**CO3**
Q 11	Discuss in details with a case example and empirical relationships, Evidential Belief GIS based integrated spatial modeling approach for hydrocarbon exploration.	**20**	**CO3**
	OR		
	With a case example and empirical relationships explain in details the use of Weight of Evidence (Wof) GIS based integrated spatial modeling approach for landslide hazard zonation	**20**	**CO3**