Name:	
Enrolment No:	**UPES**

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

Programme Name: B.Tech (GIE/GSE) Semester : VII
Course Name : Geophysical data acquisition processing & interpretation Time : 03:00 hrs
Course Code : PEGS 4001 Max. Marks: 100
Nos. of page(s) : 1

SECTION-A (6 x 5=30)
Attempt all questions

Sl. No.	Answer in one or two lines	Marks	CO
Q1	What is SP Logging and what is its importance in formation evaluation?	5	CO1
Q2	What is the definition of signal and noise in digital data acquisition system?	5	CO6
Q3	What is 4D seismic survey?	5	CO5
Q4	In reflection seismic survey how you change velocity profile to depth profile?	5	CO5
Q5	In what type of bore hole environment induction logging is appropriate?	5	CO3
Q6	In magnetic geophysical survey why we use two magnetometers simultaneously?	5	CO4

SECTION-B (5 x 10=50)
Attempt all questions.

	Answer in few lines		
Q7	What are Low Pass, High Pass and Band Reject filters in digital signal processing?	10	CO6
Q8	What is the importance of viscosity to determine fluid property in Nuclear Magnetic Resonance Logging?	10	CO1
Q9	What are the advantages and disadvantages of Magnetotelluric geophysical survey?	10	CO3
Q10	What is the difference between regional and residual gravity anomaly in gravity geophysical survey?	10	CO2
Q11	Describe the working principal of dip meter logging tool.	10	CO1

SECTION-C (20 x 1=20)
Attempt all

	Answer comprehensively		
Q12	a. What is normal move out and what is its importance in seismic geophysical survey? b. What is the importance of cross over distance in seismic geophysical survey?	10 + 10 = 20	CO6