

Name:

Enrolment No:



UNIVERSITY OF PETROLEUM AND ENERGY STUDIES

Online End Semester Examination, May 2021

Programme Name: B.Tech (GIE)

Course Name : Exploration Geophysics

Course Code : PEGS 2007

Nos. of page(s) : 1

Semester : IV

Time : 03:00 hrs

Max. Marks: 100

SECTION-A (6 x 5=30)

Attempt all questions

Sl. No.	Answer in one or two lines	Marks	CO
Q1	What is blind layer in seismic geophysical survey?	5	CO6
Q2	What is the difference between axial modulus and Poisson's ratio?	5	CO1
Q3	What is dynamic range in signal processing?	5	CO1
Q4	What are different temporal variations in magnetic geophysical survey?	5	CO4
Q5	What are the sources of Magnetotelluric signal?	5	CO3
Q6	What is divergence and curl of a vector?	5	CO1

SECTION-B (5 x 10=50)

Attempt all questions

Answer in few lines

Q7	Describe the significance of gravity derivative map for gravity geophysical survey.	10	CO2
Q8	Considering P-wave velocity of 8.1 km/sec and S-wave velocity of 3 km/sec determine the Poisson's ratio of that rock.	10	CO5
Q9	What is synthetic seismogram and what is its importance in seismic survey?	10	CO6
Q10	What is satellite geodesy and what is its application?	10	CO2
Q11	In Magnetotelluric geophysical survey what is time domain and frequency domain in signal acquisition process?	10	CO3

SECTION-C (20 x 1=20)

Attempt all

Answer comprehensively

Q12	a. Describe Maxwell's Equations in the context of Magnetotelluric geophysical survey? b. What are the basic assumptions of Magnetotelluric geophysical survey?	10+ 10= 20	CO3
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