

Name:

Enrolment No:



UNIVERSITY OF PETROLEUM AND ENERGY STUDIES

Online End Semester Examination, May 2021

Programme Name: B.Tech (GSE)

Course Name : Seismic Data Presentation and Interpretation

Course Code : PEGS 3022

Nos. of page(s) : 1

Semester : VI

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 seismic facies in seismic stratigraphy?	5	CO5
Q2	What is dynamic range of a seismic signal?	5	CO2
Q3	What is the role of seismic transducers in seismic survey?	5	CO1
Q4	What is turning point in seismic survey?	5	CO5
Q5	What is static correction in seismic survey?	5	CO6
Q6	For a given rock of density 2.7 gm/cc and P-wave velocity of 7.8 km/sec. Calculate the acoustic impedance of the rock.	5	CO1

SECTION-B (5 x 10=50)

Attempt all questions

Answer in few lines

Q7	For a given rock P-wave velocity is 8.5 km/sec. Specific gravity of the rock is 2.7 gm/cc. Determine the elastic modulus of the rock.	10	CO1
Q8	What is the significance of cross over distance in designing a seismic survey?	10	CO2
Q9	What is deconvolution in seismic signal processing and what is its importance?	10	CO2
Q10	What is the significance of display of refraction seismogram with reduced time?	10	CO6
Q11	What is plus-minus interpretation method of interpretation in refraction seismic survey?	10	CO3

SECTION-C (20 x 1=20)

Attempt all

Answer comprehensively

Q12	a. Considering a two layer horizontal earth model P-wave velocity is 6.9 km/sec at the top layer and 7.8 km/sec for bottom layer. Considering delay time of 5 millisecond determine the depth of the reflector? b. In a seismic survey how velocity profile is converted to depth profile?	10 + 10 = 20	CO4
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