

Quiz 1: GPD 510 (Reservoir Geophysics and Deepwater Imaging)

Total points 16/20

Answer all questions

The respondent's email (prasenjit.20mc0063@agp.iitism.ac.in) was recorded on submission of this form.

- ✓ Calculate the porosity of the sample described below: Dry sample mass 104.1 g; Mass of the water-saturated sample 120.2 g Density of water 1.001 g/cm³; Mass of saturated sample immersed in water 64.7 g. a. Is this the effective or the total porosity of the sample? b. What is the most probably the lithology of the sample? Explain why *

Porosity 29%. Effective porosity because fluid forced into pores. lithology is sandstone because matrix density 2.644 gm/cc³ ✗

- ✓ What will be major components of "EDA"? * 2/2

Spatial Modelling, Data quality control, Data analysis ✗

Correct answer

Spatial Modelling, Data analysis, Data quality control

- ✓ Which type of core is used for measuring the laboratory based secondary porosity in most carbonate sample? * 1/1

Whole core ✓

Partial core

¾th of whole core

½ of the whole core



✗ Identify the type of borehole based on the following conditions. • 0/4
According to Casing operation • According to conductivity of the borehole *

side wall core ,conventional core ✗

✓ For clean sandstone and carbonate what will be the relation between 2/2
effective and total porosity? *

for clean sandstone effective porosity = total porosity, For Carbonate effective porosity < total porosity ✗

✓ Volumetric measurement for porosity required following step/steps. * 1/1

- Coat with paraffin
- Pre-saturate sample with test liquid
- Use mercury as test liquid
- Above all ✓

✓ Define secondary porosity. * 2/2

Secondary porosity develops after deposition of the rock. vugular spaces in carbonate rocks created by the chemical process of leaching. fracture spaces formed due to stress distortion in reservoir rocks.

✓ What type of features are identified in Reservoir Geophysics study 2/2
during extrapolation of well data? *

Faults, Sequence boundaries, pressure compartment ✗

✓ "If the reservoir has been under production" analysis is a part of Reservoir Geophysics study. * 1/1

True



False

✓ Identify the parameters of the petroleum system modelling. * 1/1

Migration



Cap



Entrapment



Above all



Correct answer

Above all

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