

Name:

Enrolment No:



UNIVERSITY OF PETROLEUM AND ENERGY STUDIES

End Semester Examination, December 2021

Program: M.Sc. (Petroleum Geosciences)

Course: Igneous & Metamorphic Processes

Course Code: PEGS-7022

Number of pages 2

Semester: I

Time: 3 hrs

Max. Marks:100

Instruction: Your answer script should contain your Name, Roll Number & SAP ID.

SECTION-A (5Q x 4M=20)

Attempt all questions

Draw sketches if necessary

Sl. No.	Answer in one or two lines (Scan & upload)	Marks	CO
Q1	Define eutectic and peritectic point in a crystallizing melt.	4	CO4
Q2	Classify igneous rocks in terms of its texture.	4	CO2
Q3	Differentiate the following igneous structures a. Vesicular structure b. Amygdaloidal structure	4	CO2
Q4	Explain in what type of tectonic setting we get island arc volcanism?	4	CO5
Q5	Describe crystal fractionation and its importance in magma differentiation.	4	CO4

SECTION-B (4Q x 10 =40)

Attempt all questions

Draw sketches if necessary

	Answer in few lines (Scan & upload)		
Q6	Differentiate between modal and normative minerals in igneous petrology.	5+5= 10	CO3
Q7	Classify Peridotite in terms of its mineralogical constituents.	10	CO3
Q8	Describe ideal ophiolite complex and its tectonic settings.	10	CO5
Q9	Compare Equilibrium partial melting and Fractional partial melting in presence and absence of volatile phase.	10	CO4

SECTION-C (2Q x 20M =40)

Attempt all questions

Draw sketches if necessary

(Scan & upload)

Q10	a. Describe metamorphic isograd? b. Describe metamorphic differentiation and associated texture and structure.	10+10 =20	CO5 CO5
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Q11	Describe S-I classification of Granite family rocks.	20	CO3
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