


Name: Enrolment No:			
<b>UNIVERSITY OF PETROLEUM AND ENERGY STUDIES</b> <b>End Semester Examination, December 2022</b>			
<b>Course: Rocks and Minerals</b> <b>Program: BSc Geology(H) GE (Phy-Math)</b> <b>Course Code: PEGS1004G</b>		<b>Semester: 1</b> <b>Time : 03 hrs.</b> <b>Max. Marks: 100</b>	
<b>Instructions:</b> 1) One questions in sections b and c is having an internal choice 2) Draw figures wherever necessary			
<b>SECTION A</b> <b>(5Qx4M=20Marks)</b>			
S. No.		<b>Marks</b>	<b>CO</b>
Q 1	Describe five optical properties of Muscovite.	<b>4</b>	<b>CO1</b>
Q 2	Differentiate between discordant and concordant igneous bodies.	<b>4</b>	<b>CO3</b>
Q 3	Describe mode of formation of sedimentary rocks.	<b>4</b>	<b>CO2</b>
Q 4	Define Bowen's reaction series.	<b>4</b>	<b>CO2</b>
Q 5	Distinguished between optical and physical property of mineral.	<b>4</b>	<b>CO1</b>
<b>SECTION B</b> <b>(4Qx10M= 40 Marks)</b>			
Q 1	Describe physical properties of Quartz and Feldspar.	<b>10</b>	<b>CO1</b>
Q 2	Define Metamorphic rocks and type of metamorphism.	<b>10</b>	<b>CO3</b>
Q 3	Define convergence plate boundary and give an example.	<b>10</b>	<b>CO4</b>
Q 4	Describe different optical properties of Biotite and Plagioclase.	<b>10</b>	<b>CO2</b>
<b>SECTION-C</b> <b>(2Qx20M=40 Marks)</b>			
Q 3	Describe the theory of Sea floor spreading and convection current hypothesis.  Or Define Plate tectonics and different plate boundaries. Illustrate different plate boundaries.	<b>20</b>	<b>CO4</b>
Q 4	Illustrate rocks cycle and describe different mode of formation of rocks.	<b>20</b>	<b>CO3</b>