


<b>Name:</b>	
<b>Enrolment No:</b>	

**UPES**  
**End Semester Examination, December 2024**

**Course: Fundamental of Geology** **Semester: I**  
**Program: B.Sc. Chem, Physics & Maths.** **Time : 03 hrs.**  
**Course Code: PEGS 1014** **Max. Marks: 100**

**Instructions:**

- All Questions are Compulsory in Sections A, B and C.**
- Choices are given in Section B for Question No.7 and in Section C for Question No. 11.**

**SECTION A**  
**(5Qx4M=20Marks)**

S. No.		Marks	CO								
Q 1	State the importance of geology in the development of a nation	[4M]	CO1								
Q.2	Match the Following: <table border="1" style="width: 100%; margin-top: 10px;"> <tr> <td style="width: 50%;">1. Physical Geology</td> <td style="width: 50%;">1. Geologic history of the area through rock records</td> </tr> <tr> <td>2. Stratigraphy</td> <td>2. Study of rocks</td> </tr> <tr> <td>3. Geomorphology</td> <td>3. Study of landforms and the processes that shape them.</td> </tr> <tr> <td>4. Petrology</td> <td>4. Causes &amp; Consequences of natural Earth Processes</td> </tr> </table>	1. Physical Geology	1. Geologic history of the area through rock records	2. Stratigraphy	2. Study of rocks	3. Geomorphology	3. Study of landforms and the processes that shape them.	4. Petrology	4. Causes & Consequences of natural Earth Processes	[4M]	CO1
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Q.3	Identify the application of chemistry in Geo Sciences.	[4M]	CO1								
Q.4	Explain the term wind attrition.	[4M]	CO2								
Q.5	Distinguish between Bhabar and Tarai	[4M]	CO2								

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<b>SECTION B</b> <b>(4Qx10M= 40 Marks)</b>			
Q.6	Describe the Planetesimal Hypothesis for the origin of the earth with suitable figure. Also highlight the drawbacks of this hypothesis.	<b>[8+2M]</b>	
Q.7	Illustrate the causes for the formation of sedimentary rock.  <b>OR,</b>  Illustrate in detail the agents which bring about metamorphic changes in the rocks.	<b>[10M]</b>	<b>CO3</b>
Q.8	Discuss the types of unconformities with neat figures.	<b>[10M]</b>	<b>CO4</b>
Q.9	Demonstrate with neat figures the mechanism of convergent plate boundaries and the associated features that are formed in this type of plate boundaries.	<b>[10M]</b>	<b>CO3</b>
<b>SECTION-C</b> <b>(2Qx20M=40 Marks)</b>			
Q.10	Illustrate the following stratigraphic principles with neat figures:  1. Principle of the order of superposition 2. Principle of uniformitarianism 3. Principle of original horizontality 4. Principle of lateral continuity	<b>[5×4= 20M]</b>	<b>CO4</b>
Q.11	Illustrate the classification of folds on the basis of position of axial plane.  <b>OR,</b>  (a) Illustrate the classification of faults on the basis of fault pattern. (b) Analyze the importance of faults.	<b>[20M]</b>  <b>[16+4M]</b>	<b>CO4</b>