

Name:

Enrolment No:



**UNIVERSITY OF PETROLEUM AND ENERGY STUDIES**  
**End Semester Examination, December 2022**

**Programme Name: B.Sc Geology (Hons)**  
**Course Name : Earth System Science**  
**Course Code : PEGS 1001**  
**Nos. of page(s) : 1**

**Semester : I**  
**Time : 03:00 hrs**  
**Max. Marks: 100**

**Instruction: Draw sketches if necessary**

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

Sl. No.	<b>Attempt all questions</b> <b>Answer in one or two lines</b>	<b>Marks</b>	<b>CO</b>
Q1	Describe unconfined aquifer.	4	<b>CO2</b>
Q2	Describe geodynamo model for earth's magnetic field.	4	<b>CO1</b>
Q3	Differentiate between aquifer and aquiclude.	4	<b>CO2</b>
Q4	Describe artesian spring and artesian well.	4	<b>CO2</b>
Q5	Define Concurrent Range zone in Biostratigraphy.	4	<b>CO4</b>

**SECTION-B (4Q x 10M=40)**

<b>Attempt all questions</b> <b>Answer in few lines</b>			
Q6	Describe groundwater distribution in an ideal soil profile.	10	<b>CO2</b>
Q7	Describe Principle of Lateral Continuity and Cross-cutting relationships to establish stratigraphy of an area.	10	<b>CO4</b>
Q8	Describe Chronostratigraphic units according to hierarchy.	10	<b>CO4</b>
Q9	Describe a water shed with proper drainage stream ordering.	10	<b>CO2</b>

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

<b>Attempt all questions</b> <b>Answer comprehensively</b>			
Q10	Describe Sea Floor Spreading hypothesis and its importance in plate tectonics theory.	20	<b>CO3</b>
Q11	Describe importance of Trench Roll Back in formation of Back Arc Basin.	20	<b>CO3</b>