
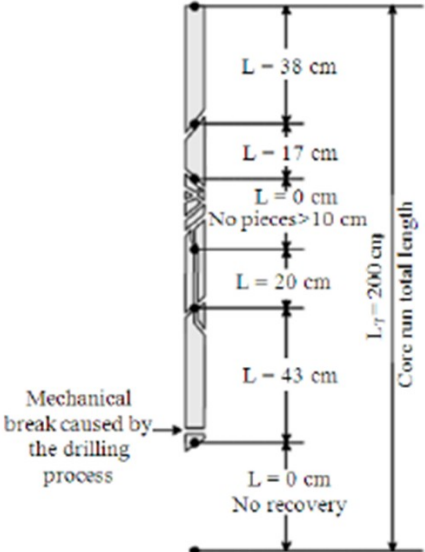


Name:			
Enrolment No:			
UNIVERSITY OF PETROLEUM AND ENERGY STUDIES End Semester Examination, May 2022			
Course: Engineering Geology Program: M. Sc Petroleum Geoscience Course Code: PEGS 7014		Semester: IV Time : 03 hrs. Max. Marks: 100	
Instructions: 1. Attempt all the Questions from Section A & Section B. 2. Attempt Any two questions from Section C. 3. Draw label diagram to explain the answer where is required.			
SECTION A (5Qx4M=20Marks)			
S. No.		Marks	CO
Q 1	Define geological history of India.	4	CO1
Q 2	Illustrate occurrences of iron ores and silicate minerals of India.	4	CO2
Q 3	Illustrate design criteria of gravity dam.	4	CO1
Q 4	Illustrate role deformed geological structures in engineering construction.	4	CO1
Q 5	Classify intact rocks in terms of Rock Mass Rating.	4	CO1
SECTION B (4Qx10M= 40 Marks)			
Q 6	Discuss the geological investigations and analysis required for heavy constructions in highly deformed and landslide prone zone.	10	CO2
Q 7	Describe Conceptual model of hill slope stability. What is geological significance for stepped topography in engineering geology?	10	CO3
Q 8	Classify various types of dam. Draw the component of dam and define them with their significance.	10	CO3
Q 9	Discuss in brief about role of geological investigations and survey to recommend the site for dam and bridge construction. OR Explain bridge site geology. Classify the types of bridge based on geomorphological features of the area.	10	CO3
SECTION-C (2Qx20M=40 Marks)			
Q 10	Write a short note on any Five: i. Epicenter ii. Cable stayed bridge iii. Spill way iv. Drainage gallery v. Parts of Dam	20	CO4

<p>Q 11</p>	<p>Calculate RQD of given pictorial data. Classify the competency of rock to bear the load based on RQD.</p>		<p>15+5</p> <p>CO4</p>
<p>Q 12</p>	<p>Draw the schematic diagram of a gravity dam. Explain all six forces act on gravity dam and effect the stability of dam.</p>	<p>10+10</p>	<p>CO5</p>