
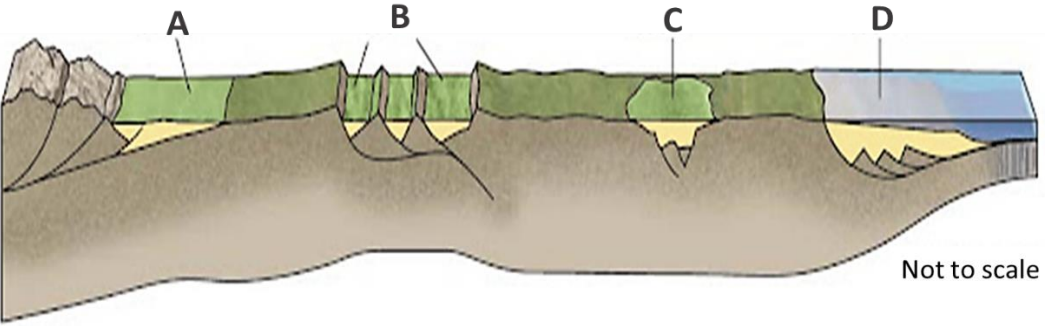


Name:			
Enrolment No:			
UPES End Semester Examination, December 2023			
Course: Geomorphology Semester: 5th Program: B.Sc. Geology Course Code: PEGS 3027 Instructions:		Time : 03 hrs. Max. Marks: 100	
SECTION A (5Qx4M=20Marks)			
SN		Marks	CO
Q 1	Define the wave cut platform and its relevance in coastal geomorphology.	4	CO1
Q 2	Explain the Stalactite and Stalagmite.	2+2	CO1
Q 3	Describe the fundamental principles behind Scanning Electron Microscopy (SEM).	4	CO2
Q 4	True or False: (a) Glacial erosion is primarily a form of biological weathering. (b) Alluvial fans are landforms created by the deposition of sediment carried only by wind. (c) Karst topography is characterized by features like sinkholes and caves, formed by the dissolution of soluble rocks like limestone. (d) Mass wasting refers to the movement of large volumes of rock and soil upslope due to water.	4 (1 mark each)	CO2
Q 5	True or False: (i) Glacial landforms, like moraines and drumlins, are a result of endogenetic processes that shape the Earth's surface. (ii) The Grand Canyon in the United States is an example of a landform primarily shaped by Glacial erosion. (iii) Crevasse splays are formed in a fluvial depositional environment. (iv) DEM is extremely helpful in tectonic-geomorphological studies.	4 (1 mark each)	CO2
SECTION B (4Qx10M= 40 Marks)			
Q 6	Explain the process of formation of an Oasis.	10	CO1
Q 7	Draw the properly annotated diagram and explain the Concordant and Discordant drainage patterns.	10	CO2
Q 8	Explain in detail any one sediment dating technique and its relevance in modeling the earth's surface process and landform development.	10	CO3
Q 9	Draw the Davis cycle of erosion and explain the theory of landform creation and erosion (Davis Theory).	5+5	CO4
	OR		
	Draw and explain Penck's theory of crustal change and slope development. Also, compare how is it distinct from other contemporary theories of landscape evaluation.		

SECTION-C (2Qx20M=40 Marks)

Q 10	<p>(a) Draw a flowchart and provide a detailed explanation of the endogenetic and exogenetic processes involved in the formation and alteration of distinctive geological landforms.</p> <p>(b) Describe with an example that how these processes influence the creation and alteration of geological features.</p>	10+10	CO3
Q 11	<p>(a) Identify the type of tectonic setting and associated basins (A to D) illustrated in the below-mentioned diagram. Draw the comprehensive figures of individual basins (A to D) and properly label their different components and faults.</p> <p>(b) Explain how these individual basins got developed, emphasizing the role of relevant tectonic forces.</p>  <p align="right">Not to scale</p>	10+10	CO4
OR			
<p>(c) Draw a proper flowchart and explain various kinds of weathering processes and how do they affect the disintegration and transformation of minerals and rocks.</p> <p>(d) Provide specific examples and illustrate at least five types of weathering.</p>			

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