

TABLE OF CONTENTS

UnitNo.	Title	Page No.
1	Introduction to Earth Science	01-43
	1.1 Scope and Importance of Earth Science	
	1.2 Origin and Evolution of the Earth	
	1.3 Structure and Composition of the Earth	
	1.4 Earth'sSpheres: Lithosphere, Hydrosphere, Atmosphere, Biosphere	
	1.5 Earth System Science and Interactions	
2	EarthMaterials	44-72
	2.1 Minerals: Formation and Properties	
	2.2 Mineral Identification Techniques	
	2.3 Rock-FormingMinerals	
	2.4 Classification of Rocks	
	2.5 EconomicMinerals and Natural Resources	
3	Igneous, Sedimentary, and MetamorphicProcesses	73-112
	3.1 IgneousProcesses and Rock Formation	
	3.2 SedimentaryProcesses and DepositionalEnvironments	
	3.3 Metamorphism and Metamorphic Rocks	
	3.4 The Rock Cycle	
	3.5 Applications in Resource Exploration	
4	Plate Tectonics and Earth'sInternalProcesses	113-141
	4.1 Earth'sInterior	
	4.2 Plate TectonicTheory	
	4.3 Continental Drift and Sea-FloorSpreading	
	4.4 Mountain Building and Orogeny	
5	Volcanism and Geodynamics	142-170
	5.1 Magma Generation	
	5.2 Types of Volcanoes	
	5.3 VolcanicHazards	
	5.4 GeothermalEnergy	

6	Weathering, Erosion, and Soil Formation	171-199
	6.1 PhysicalWeathering	
	6.2 ChemicalWeathering	
	6.3 BiologicalWeathering	
	6.4 Soil Formation Processes	
7	Surface Processes and Landforms	200-228
	7.1 Geomorphology	
	7.2 River Systems and Fluvial Processes	
	7.3 Glacial Processes	
	7.4 CoastalProcesses	
8	Water Resources and Hydrogeology	229-253
	8.1 Hydrological Cycle	
	8.2 GroundwaterSystems	
	8.3 Aquifers and Groundwater Flow	
	8.4 Watershed Management	