



P.E.S. College of Engineering, Mandya - 571 401

(An Autonomous Institution affiliated to VTU, Belagavi)

Fifth Semester, B.E. - Civil Engineering

Semester End Examination; Feb. - 2021

Applied Geology

Time: 3 hrs

Max. Marks: 100

Course Outcomes

The Students will be able to:

CO1: Students will able to apply the knowledge of geology and its role in Civil Engineering.

CO2: Students will effectively utilize earth's materials such as mineral, rocks and water in Civil engineering practices.

CO3: Analyze the natural disasters and their mitigation.

CO4: Assess various structural features and geological tools in ground water exploration.

CO5: Natural resource estimation and solving civil engineering problems.

Note: I) PART - A is compulsory. Two marks for each question.

II) PART - B: Answer any Two sub questions (from a, b, c) for Maximum of 18 marks from each unit.

Q. No.	Questions	Marks	BLs	COs	POs
I : PART - A		10			
I a.	Define Landslides.	2	L1	CO1	PO1
b.	Define Rocks and Ore forming on minerals.	2	L1	CO2	PO1
c.	What is metamorphism?	2	L1	CO3	PO2
d.	Define out crop with a sketch.	2	L1	CO4	PO2
e.	What is Dam?	2	L1	CO4	PO2
II : PART - B		90			
UNIT - I		18			
1 a.	Describe the Internal structure of earth based on seismological evidences with a neat sketch.	9	L1	CO3	PO2
b.	Brief note on Importance of Geology in the field of Civil Engineering.	9	L1	CO1	PO2
c.	What is Earthquake? Explain causes and Earthquake resisting structures.	9	L2	CO3	PO1
UNIT - II		18			
2 a.	Define minerals. Write note on Luster and Hardness of a minerals.	9	L2	CO2	PO1
b.	Write the description of minerals CALCITE, QUARTZ and TALC.	9	L3	CO2	PO1
c.	Explain the physical properties of mineral Streak and Specific Gravity.	9	L2	CO2	PO1
UNIT - III		18			
3 a.	Explain Concordent and Discordent Igneous bodies with a neat sketch.	9	L2	CO3	PO2
b.	Define Sedimentary Rocks. Write the classification of Sedimentary Rocks.	9	L2	CO3	PO2
c.	Write the description of Rocks GRANITE, SANDSTONE and MARBLE.	9	L2	CO3	PO2
UNIT - IV		18			
4 a.	What is Fault? With a neat sketch explain parts of Faults and types of Faults.	9	L2	CO3	PO2
b.	Write short note on;	9	L2	CO3	PO2
	i) Geological maps ii) Parts of Folds				
c.	Distinguish between Joints and Faults.	9	L2	CO3	PO2
UNIT - V		18			
5 a.	Describe the Electrical resistivity method for Investigation of ground water.	9	L3	CO4	PO2
b.	Write Geological aspects to be consider in Investigation of Site for Dam.	9	L1	CO4	PO2
c.	What is Remote Sensing? Discuss the various applications in Civil Engineering.	9	L2	CO4	PO2