



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

(An Autonomous Institution affiliated to VTU, Belagavi)

Sixth Semester, B.E. - Civil Engineering

Semester End Examination; July / Aug. - 2022

Earth Science and Natural Resources

Time: 3 hrs

Max. Marks: 100

## Course Outcomes

The Students will be able to:

CO1: Understand the basic materials in civil engineering

CO2: Analyse the types of foundation, have an insight to different types of doors, windows.

CO3: To classify Bonds in brick work, English bond, Flemish bond, Joints in stone masonry, arches.

CO4: To understand the building components and method of construction.

**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
<b>I : PART - A</b>		<b>10</b>			
I a.	Define Igneous rocks.	2	L1	CO2	1,2
b.	Define soil.	2	L1	CO1	1,2
c.	What is fold?	2	L2	CO1	2
d.	Define Aquifer.	2	L2	CO1	2
e.	Explain Reservoir.	2	L2	CO2	1,2
<b>II : PART - B</b>		<b>90</b>			
<b>UNIT - I</b>		<b>18</b>			
1 a.	With a neat diagram, explain internal structure of earth.	9	L2	CO1	2
b.	Explain Mohr's scale of hardness.	9	L1	CO1	1,2
c.	With an example explain three types of rocks.	9	L1	CO1	1,2
<b>UNIT - II</b>		<b>18</b>			
2 a.	Define earthquake. Explain causes and effects of earthquake.	9	L2	CO2	3
b.	Describe volcanoes. Explain causes and effects of volcanoes.	9	L2	CO2	3
c.	Describe weathering process. Add a note on importance.	9	L1	CO2	3
<b>UNIT - III</b>		<b>18</b>			
3 a.	With a neat diagram explain different types of faults.	9	L2	CO2	2
b.	How you recognize fold in the field?	9	L1	CO2	2
c.	Explain unconformities and its types.	9	L1	CO2	2
<b>UNIT - IV</b>		<b>18</b>			
4 a.	With a neat diagram explain hydrological cycle.	9	L3	CO1	7
b.	Explain how ground water is contaminated due to different sources.	9	L3	CO1	7
c.	Describe rain water harvesting.	9	L2	CO1	7

**UNIT - V**

**18**

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|---|---|----|-----|---|
| 5 a. Define dam. Explain different types.   | 9 | L2 | CO2 | 7 |
| b. Define bridges. Explain different types. | 9 | L2 | CO2 | 4 |
| c. Describe GPS and its applications.       | 9 | L2 | CO2 | 4 |

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