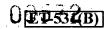
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B.TECH. CIVIL (WATER RESOURCES ENGINEERING)

Term-End Examination, 2019

ET-531(B) : SOIL SCIENCE

Time: 3 Hours]

[Maximum Marks : 70]

Note : Attempt **any five** questions. Support your answers with neat sketches. All the questions carry equal marks.

1.	(a)	Discuss formation		rious	factors	affectin	g soil [7]
	(b)	What do the struct	•			cture ? D	iscuss [7]
2.	(a)	Explain relationsh diagram.		-			mass ematic [7]
	(b)	Describe	the laws	s gove	rning flui	d flow in s	soil. [7]
3.	(a)	Discuss soil forma soils.			•		
ET-531(B)			(1)		[Р.Т.О.]

- (b) What are alluvial soils and how are they formed? [7]
- 4. (a) List essential plant nutrients. Discuss the basis for classifying a mineral nutrient to be primary, secondary or micro. [7]
 - (b) Describe the stages in Indirect Land Evaluation
 with the help of a schematic diagram. [7]
- 5. (a) Explain the symbols used in describing soil horizon and their respective meanings. [7]
 - (b) Describe Symbiotic and Non-symbiotic nitrogen fixation in soils. [7]
- 6. (a) Explain the organic matter decomposition and formation of humic substances in soil with the help of a neat sketch. [7]
 - (b) Describe at least seven symptoms of plant disease. [7]
- 7. Differentiate between the following : [4×3½]
 - (a) Active and Reserve acidity
 - (b) Red soil and Lateritic soil

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(2)

- (c) Manure and Fertiliser
- (d) Gravitational and total hydraulic heads

-- X --

8. Write short notes on the following :

[4×3½]

- (a) Soil colour
- (b) Buffering
- (c) Soil Morphology
- (d) Carbon cycle

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