Code No: 138CF **R16**

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
B. Tech IV Year II Semester Examinations, September - 2020
GEOENVIRONMENTAL ENGINEERING
(Civil Engineering)

Time: 2 Hours **Max. Marks: 75**

Answer any Five Questions
All Questions Carry Equal Marks
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1. Discuss in detail the scope of geoenvironmental engineering with clear illustrations.[15]

2. What are the types of soil pollution? Discuss the following soil pollution by (a) Industrial effluents and solid wastes (b) Agriculture and (c) Urban activities. [15]

3. Write the types of waste and discuss the following: (a) Agricultural waste, (b) Biodegradable waste, (c) Biomedical waste and (d) Chemical waste. [15]

4.a) What are the characteristics of solid waste?
b) Discuss how waste characterization is done? [7+8]

5.a) What is contaminant transport? Write the factors that influence the movement of a contaminant through the groundwater system.
b) Explain dispersion due to mechanical spreading and molecular diffusion. [8+7]

6.a) Discuss the following with respect to contaminant transport modeling (i) Advective flux and (ii) Diffusive flux.
b) Discuss the volume related properties used in the contaminant transport. [8+7]

7.a) How contaminated sites are identified? Explain.
b) Discuss the objectives of site remediation. [8+7]

8.a) What are the types of landfills? Discuss them with neat sketches.
b) Discuss the considerations in the site selection for landfills. [8+7]

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