

Roll No.

Total Pages : 02

BT-8/M-18

38046

GEOSYNTHETICS ENGINEERING

CE-414-E

Time : Three Hours]

[Maximum Marks : 75

Note : Attempt *Five* questions in all, selecting at least *one* question from each Unit. All questions carry equal marks.

Unit I

1. Discuss briefly the Historical development of Geosynthetics. What major functions are served by Geosynthetics ? Also discuss their applications. 15
2. Discuss the process of chain scission in degradation of Polymeric Material. 15

Unit II

3. Compare woven and non-woven geotextiles on the basis of manufacturing process. 15
4. Discuss various tests on Geogrids used to determine the physical properties and also discuss tensile strength testing under uniaxial loading. 15

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Unit III

5. What are advantages of reinforcing soils with geogrids over steel ? How the bearing capacity of loose cohesion soils improved by using geogrids. 15
6. How geogrids are placed along an earthen slopes to protect them from erosion ? 15

Unit IV

7. Describe the case study of lining KAKARAPAR canal with Geosynthetics. 15
8. Give application of geosynthetics in water resources projects, quoting case study on DHAROI DAM and HIRAN DAM. 15

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