

QUIZ

1. What is reinforced earth?
2. Define Geosynthetics. What are the different types of geosynthetics?
3. Explain the difference between geosynthetic and metallic reinforcements.
4. What are the advantages and disadvantages of the use of geosynthetics?
5. What are the main functions of geosynthetics? Explain the different functions of geosynthetics with examples.
6. Define permittivity and transmittivity and mention their units. Derive the corresponding equations.
7. Why is it needed to use geosynthetics on the back of a reinforced soil wall?
8. What is conventional landfill? How can you construct an engineered landfill?
9. Is it possible to construct a steep slope with the aid of geosynthetics? What is the basic mechanism of it?
10. What are the different types of facing elements? Also explain their main roles.
11. Explain basic concepts and mechanisms of reinforced earth.
12. Explain the LCPC cohesion theory. Also explain the NSW cohesion theory.
13. What do you mean by rupture and slippage of the reinforcement?
14. Why is the wide width tensile strength test recommended instead of narrow strip test?
15. Why is the abrasion resistance test required?
16. Define porosity and percent open area.
17. What is gradient ratio? When can you say that the geotextile is clog free?
18. How do a geotextile perform the filtration function?
19. What are the Terzaghi filter criteria?
20. What is AOS?
21. What is silt fence? What is the role of geotextile?
22. What is the design life of road?
23. Explain the role of geotextile to prevent reflection cracking.
24. Is it possible to reduce the thickness of road by the introduction of geotextile? Explain.
25. Explain in details the role of geosynthetics to design an embankment on soft soil? How do you prevent the excessive vertical and horizontal deformation? Explain the design steps.
26. Explain the construction procedures of reinforced soil slope and reinforced soil wall.
27. What do you mean by anchorage length or embedded length? How do you derive the length?
28. Define creep. What are the creep values of polyester and polypropylene?
29. Explain the wick drain, sheet drain and highway edge drain with example.
30. What is prefabricated vertical drain (PVD)? Explain its role in soft ground improvement.
31. List the various joining methods of geotextile and geogrid.
32. What is geocell? What is the basic mechanism of geocell?
33. What is geof foam? Compare it with conventional fill materials? Explain different functions of geof foam.
34. What is geosynthetic clay liner? What is the difference between calcium and sodium bentonite clay liner?
35. Mention the thickness of geomembranes used in the landfill.
36. What are LSS and HELP models?
37. Define cumulative reduction factor.
38. What are the differences between gravity drainage and pressure drainage?
39. Why do you need sewn seam strength of geotextile?
40. How does the geotextile act as reinforcement and water proofing material in roadways?
41. Is it required to prestress the geotextile in soft roadway?
42. What is a French drain?
43. What is silt fence?
44. What are geotextile tube, geotextile containers and geotextile bags? How can they be installed in the field?
45. Explain dewatering mechanism of geotextile tube?
46. What are the differences between uniaxial and biaxial geogrid?

47. What is the difference between geogrid and geonet? What are their functions?
48. Explain the advantages and disadvantages of a Geomembrane (GM)/ Geosynthetic clay liner (GCL) composite.
49. Explain the advantages and disadvantages of a polymer geopipe and concrete pipe.