

Unit 14 - Week 12

Course outline

How does an NPTEL online course work?

Week 0

Week 1

Week 2

Week 3

Week 4

Week 5

Week 6

Week 7

Week 8

Week 9

Week 10

Week 11

Week 12

Introduction to Geosynthetics in Landfills

Landfill Engineering Systems

Lecture Materials

Quiz : Assignment 12

Week 12 Feedback : Geosynthetics And Reinforced Soil Structures

Text Transcripts

Download Videos

Assignment 12

The due date for submitting this assignment has passed.
As per our records you have not submitted this assignment.

Due on 2020-04-22, 23:59 IST.

1) Where is the clay liner provided within the body of a capped single liner land fill? 1 point

- Bottom most layer
- Cover layer
- At intermediate locations
- Depends on the nature of waste.

No, the answer is incorrect.
Score: 0

Accepted Answers:
Bottom most layer
Cover layer

2) Why is the barrier provided in a land fill? 1 point

- To increase the bearing capacity of soil
- To protect the landfill slope
- To prevent the flow of leachate into the foundation soil
- All of the above

No, the answer is incorrect.
Score: 0

Accepted Answers:
To prevent the flow of leachate into the foundation soil

3) Why is the cover provided above the land fill? 1 point

- To prevent the ingress of rain water
- To prevent the release of odour
- To prevent bird menace
- All of the above

No, the answer is incorrect.
Score: 0

Accepted Answers:
All of the above

4) Which of the following statements are correct? 1 point

- GCL is provided below the geomembrane layer
- GCL is provided above the clay layer
- Geonets are provided for drainage purposes
- All of the above

No, the answer is incorrect.
Score: 0

Accepted Answers:
GCL is provided below the geomembrane layer
Geonets are provided for drainage purposes

5) Leaking of leachate occurs from the land fill due to 1 point

- Shrinkage cracks in the clay liner
- Holes in the geomembrane layer
- Imperfect sealing of joints
- All of the above

No, the answer is incorrect.
Score: 0

Accepted Answers:
All of the above

6) Major components of a land fill are 1 point

- Bottom and side liner systems
- Leak detection system
- Top liner system
- Gas collection and removal system

No, the answer is incorrect.
Score: 0

Accepted Answers:
Bottom and side liner systems
Leak detection system
Top liner system
Gas collection and removal system

7) What are the Non-destructive tests to check the quality of the seam? 1 point

- Air pressure test
- Vacuum box test
- Shear test
- Peel test

No, the answer is incorrect.
Score: 0

Accepted Answers:
Air pressure test
Vacuum box test

8) What are some potential candidates to act as drainage layers? 1 point

- Geomembrane layers
- Geonet layer
- Coarse sand layer
- Clay layer compacted dry of OMC.

No, the answer is incorrect.
Score: 0

Accepted Answers:
Geonet layer
Coarse sand layer

9) The differences between hazardous waste landfills (HW) and municipal solid waste (MSW) landfills are, 1 point

- MSW landfills need two layers of compacted clay while the HW need three layers of clay soils
- MSW landfills have single clay soil layer while HW will need two layers of clay soils
- MSW landfills may not be provided with geomembrane lining while the HW landfills necessarily need geomembrane lining
- MSW landfills can be provided with GCL in plane of clay soil layer while the HW landfills need both clay layer and GCL

No, the answer is incorrect.
Score: 0

Accepted Answers:
MSW landfills have single clay soil layer while HW will need two layers of clay soils
MSW landfills may not be provided with geomembrane lining while the HW landfills necessarily need geomembrane lining

10) The infill material in a GCL is, 1 point

- Fine powder of sandy clay
- Fine powder of silt
- Fine powder of kaolinite clay soil
- Montmorillonite clay (or bentonite clay) powder

No, the answer is incorrect.
Score: 0

Accepted Answers:
Montmorillonite clay (or bentonite clay) powder