

Unit 5 - Week 3

Course outline

How does an NPTEL online course work?

Practice Assignment

Week 1

Week 2

Week 3

● Lecture 10: Recent trends-I

● Lecture 11: Recent trends-II

● Lecture 12: Energy Geotechnics

● Lecture 13: Soil: A living entity

○ Quiz : Assignment-3

○ Download Videos

○ Weekly Feedback

● Assignment-3 solutions

Week 4

Week 5

Week 6

Week 7

Week 8

Week 9

Week 10

Week 11

Week 12

Text Transcripts

Assignment-3

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

Due on 2020-02-19, 23:59 IST.

1) _____ is required to be carried out to get clearance from competent environmental authority.

1 point

- Environmental impact analysis
- Geographical survey
- Economic impact analysis
- Social impact analysis

No, the answer is incorrect.

Score: 0

Accepted Answers:

Environmental impact analysis

2) _____ would be effective for preventing the 'spread of contaminants' in the geoenvironment.

2 points

- Curtain/Cut off walls
- Grouts
- Permeable reactive barriers
- All of the above

No, the answer is incorrect.

Score: 0

Accepted Answers:

All of the above

3) Contaminant concentration in groundwater is expected to be higher when it is stationary as compared to its moving state.

1 point

- Yes
- No

No, the answer is incorrect.

Score: 0

Accepted Answers:

Yes

4) Which of the following events would not result in alteration of geomaterials properties?

1 point

- Biological
- Chemical
- Thermal
- None of the above

No, the answer is incorrect.

Score: 0

Accepted Answers:

None of the above

5) Knowledge of _____ is a must for speculative modeling of the mechanisms that are important in the realm of environmental geomechanics?

1 point

- Database
- SQL
- Both (a) and (b)
- None of the above

No, the answer is incorrect.

Score: 0

Accepted Answers:

Both (a) and (b)

6) Primary purpose of growing vegetation on the disposal sites is to _____

1 point

- Improve oxygen concentrations in the surroundings
- Removal of odour
- Stabilization of the waste
- All the above

No, the answer is incorrect.

Score: 0

Accepted Answers:

Stabilization of the waste

7) _____ of the waste is recommended for the sites at which the water table is located at shallow depths.

1 point

- Deep-disposal
- Surface-stacking
- Near-surface disposal
- All the above

No, the answer is incorrect.

Score: 0

Accepted Answers:

Surface-stacking

8) Which of the following statements are not correct?

1 point

- Methane gas molecules are trapped in the ice crystals to form CH₄ gas hydrates
- The marine environment is the only source of CH₄ gas hydrates
- P-T conditions in the marine environment influence the formation of CH₄ gas hydrates
- Either thermogenic or biogenic activities could generate CH₄ trapped in the gas hydrates

No, the answer is incorrect.

Score: 0

Accepted Answers:

The marine environment is the only source of CH₄ gas hydrates

9) Which of the following statements are invalid?

2 points

- Stability of the sea bed is a challenging task during the CH₄ gas hydrates extraction
- Gas hydrates extraction can be performed only by 'depressurization'
- Dissociation of gas hydrates is a 'coupled phenomenon'
- Geomechanical properties of gas hydrates are not much dependent on their morphology

No, the answer is incorrect.

Score: 0

Accepted Answers:

Gas hydrates extraction can be performed only by 'depressurization'

Geomechanical properties of gas hydrates are not much dependent on their morphology

10) Which among the following can be a reserve for gas hydrates?

2 points

- Ocean bed
- Permafrost region
- River beds
- All the above

No, the answer is incorrect.

Score: 0

Accepted Answers:

Ocean bed

Permafrost region

11) The activity of the soils is inversely proportional to its particle size

1 point

- True
- False

No, the answer is incorrect.

Score: 0

Accepted Answers:

True

12) Match the following correctly

2 points

- | | |
|---------------------|-------------------------------|
| i. Fatigue | a. Drainage |
| ii. Giddiness | b. Excess pore water pressure |
| iii. High B.P. | c. Cyclic loading |
| iv. Epilepsy | d. Instability |
| v. Urinary problems | e. liquefaction |

- d, e, b, a, c
- e, d, a, e, b
- c, d, e, b, a
- c, d, b, e, a

No, the answer is incorrect.

Score: 0

Accepted Answers:

c, d, b, e, a