

Unit 9 - Week 7

Course outline

How does an NPTEL online course work?

Practice Assignment

Week 1

Week 2

Week 3

Week 4

Week 5

Week 6

Week 7

● Lecture 28: Geomaterial characterization-IV (Morphological characterization)

○ Lecture 29: Geomaterial characterization-V (Specific surface area)

○ Lecture 30: Geomaterial characterization- VI (Chemical characterization)

● Lecture 31: Geomaterial characterization- VII (Chemical characterization)

● Lecture 32: Geomaterial characterization- VIII (Chemical characterization)

○ Download Videos

○ Weekly Feedback

● Assignment-7 solutions

○ Quiz : Assignment-7

Week 8

Week 9

Week 10

Week 11

Week 12

Text Transcripts

Assignment-7

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

Due on 2020-03-18, 23:59 IST.

1) Which of the following is not an SSA measurement method? 1 point

- BET nitrogen adsorption
- Blaine's air permeability
- He gas pycnometer
- None of the above

No, the answer is incorrect.
Score: 0

Accepted Answers:
None of the above

2) Which of the following industrial by-products will exhibit an extremely high SSA? 1 point

- GGBFS
- Fly ash
- Silica fume
- Can't be said

No, the answer is incorrect.
Score: 0

Accepted Answers:
Silica fume

3) Which of the following methods uses dye for determination of SSA? 3 points

- BET
- EGME
- MB
- All the above

No, the answer is incorrect.
Score: 0

Accepted Answers:
EGME
MB

4) Which of the following methods would be more suitable for determining the particle size distribution of the fly ash? 2 points

- Ultra-sieve analysis
- Laser obscuration time measurement (LOTM)
- Hydrometer
- None of the above

No, the answer is incorrect.
Score: 0

Accepted Answers:
Laser obscuration time measurement (LOTM)

5) Which of the following minerals are preferred in a geomaterial as a filler material? 1 point

- Silica
- Alumina
- Calcite
- All the above

No, the answer is incorrect.
Score: 0

Accepted Answers:
Silica
Alumina

6) Which of the following geomaterials would consist of the highest fractions of free lime? 0 points

- Silica fumes
- GGBFS
- Fly ash
- Copper slag

No, the answer is incorrect.
Score: 0

Accepted Answers:
Fly ash

7) Which of the following properties are most important for zeolitization of geomaterial? 1 point

- Ratio of alumina to silica
- Density
- Both a and b

No, the answer is incorrect.
Score: 0

Accepted Answers:
Ratio of alumina to silica

8) Which of the following instrument doesn't work on the spectroscopy based detection technique? 1 point

- ICP-AES
- FTIR
- XRF
- None of the above

No, the answer is incorrect.
Score: 0

Accepted Answers:
None of the above

9) Which of the following parameters would influence the CEC of a geomaterial? 2 points

- Specific surface area
- Mineralogy
- Density
- None of the above

No, the answer is incorrect.
Score: 0

Accepted Answers:
Specific surface area
Mineralogy

10) Which of the following soils are more vulnerable to microbial activities? 1 point

- Marine clays
- Black cotton soils
- Sands
- Peats

No, the answer is incorrect.
Score: 0

Accepted Answers:
Marine clays
Peats

11) Which of the following soils do not require a tension lysimeter for pore-solution sampling? 1 point

- Unsaturated
- Fully saturated
- Partially saturated
- All the above

No, the answer is incorrect.
Score: 0

Accepted Answers:
Fully saturated

12) Which of the following instruments is(are) useful for pore-solution sampling? 1 point

- Lysimeter
- Pressure membrane extractor
- Thermal probe
- Magnetic shaker

No, the answer is incorrect.
Score: 0

Accepted Answers:
Lysimeter
Pressure membrane extractor

13) _____is the purpose of using collection of collection basin lysimeter? 1 point

- In-situ hydraulic conductivity
- Leak detection
- Leaching of heavy metals
- All of the above

No, the answer is incorrect.
Score: 0

Accepted Answers:
All of the above