

Unit 4 - Reliability and Testing on Transmission Insulators

Course outline

How does an NPTEL online course work?

Introduction and Design of Transmission/Distribution Insulators

Field Experience and contamination issues on Transmission Insulators

Reliability and Testing on Transmission Insulators

Reliability and philosophy of testing

Testing of Ceramic, Glass and Composite Insulators

Quiz : Week 3 - Quiz

Cleaning and Coating methods, Introduction to hybrid Insulators

Text Transcripts

Weekly Feedback forms

Video download

Week 3 - Quiz

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) The primary objective of insulation coordination is to ensure that insulation has enough strength to encounter
- Flashover voltage
 - Various stresses
 - in reducing cost
 - ROW

No, the answer is incorrect.
Score: 0

Accepted Answers:
Various stresses

1 point

- 2) Typically Lightning over-voltages are damped oscillations of frequencies
- ≤ 10 kHz
 - 1MHz
 - ≤ 100 kHz
 - 50 Hz

No, the answer is incorrect.
Score: 0

Accepted Answers:
 ≤ 100 kHz

1 point

- 3) The operating voltage of surge protecting devices must be ____ to the withstand voltage of equipment.
- Equal
 - Higher
 - lower
 - Twice

No, the answer is incorrect.
Score: 0

Accepted Answers:
lower

1 point

- 4) Failures with radial cracking are generally observed in ____ insulators
- Ceramic
 - Polymeric
 - glass
 - EPDM

No, the answer is incorrect.
Score: 0

Accepted Answers:
Ceramic

1 point

- 5) Composite Insulators are sensitive to environment
- TRUE
 - FALSE

No, the answer is incorrect.
Score: 0

Accepted Answers:
TRUE

1 point

- 6) Brittle fracture is a _____ failure of FRP
- Contamination induced
 - Stress corrosion
 - UV induced
 - lightning

No, the answer is incorrect.
Score: 0

Accepted Answers:
Stress corrosion

1 point

- 7) Live line maintenance techniques are yet to be developed for ____.
- Porcelain
 - Glass
 - Polymeric
 - None

No, the answer is incorrect.
Score: 0

Accepted Answers:
Polymeric

1 point

- 8) The region near the _____ of the energized insulator displays high field.
- On the Surface
 - Near the Pin
 - Near the Cap
 - around Pin and Cap

No, the answer is incorrect.
Score: 0

Accepted Answers:
Near the Pin

1 point

- 9) Contamination induced flashover phenomena can be simulated/experimented easily
- TRUE
 - FALSE

No, the answer is incorrect.
Score: 0

Accepted Answers:
FALSE

1 point

- 10) In general, water nozzles of _____ are used for cleaning service insulators
- 10 to 40psi
 - 50 to 100psi
 - 150 to 300psi
 - above 400psi

No, the answer is incorrect.
Score: 0

Accepted Answers:
above 400psi

1 point

- 11) Defective discs in a string can be traced by insulation resistance measurement
- TRUE
 - FALSE

No, the answer is incorrect.
Score: 0

Accepted Answers:
TRUE

1 point

- 12) Typically switching overvoltages are of ____.
- 0.5 to 1pu
 - 1.5 to 5 pu
 - above 6 pu
 - None

No, the answer is incorrect.
Score: 0

Accepted Answers:
1.5 to 5 pu

1 point

- 13) Over voltages due to Lightning induced currents in the range of
- About 500 Amps
 - 500 to 1000 Amps
 - upto 200 kA
 - ≥ 500 kA

No, the answer is incorrect.
Score: 0

Accepted Answers:
upto 200 kA

1 point

- 14) Quality of insulation can be assessed by measuring loss factor and partial discharges
- TRUE
 - FALSE

No, the answer is incorrect.
Score: 0

Accepted Answers:
TRUE

1 point

- 15) Power frequency over-voltages are harmful to the insulation.
- TRUE
 - FALSE

No, the answer is incorrect.
Score: 0

Accepted Answers:
FALSE

1 point