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Assignment

Name

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Programme

B-Tech (E)

Subject

High Voltage

Submitted

To - Sir Sajid Nawaz

Cons of overhead lines =>

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- > Felling of any object like trees on overhead line may break it.
- > sag - wire starts to bulge down due to lack of strength so maintaining proper sag for overhead line is must.
- > lightning may strike on overhead wire which will ultimately damage your line.
- > Transmission losses are more.
- > Visually pollutes the environment surrounding it.

Pros of underground lines

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- > have Lower Transmission Losses
- > can absorb emergency power loads.
- > have lower maintenance costs.
- > emit no electric field and can be engineered to emit a lower magnetic field than an overhead line.
- > require a narrower band of land to install. and are less susceptible to the impacts of severe weather.

Q(7) Compare the pros and cons of overhead lines and underground cables?

Ans →

Pros of overhead lines
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- High power transmission
- Low installation and material cost
- Long distance transmissions
- The fault or damage in overhead can easily locate.
- maintenance of line is easier.
- Extension or joining on overhead line can be performed easily and also it facilitates easy replacing.

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Cons of underground line

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-> High installation cost

-> Difficult to repair

-> Difficulty in finding the actual

location of underground buried

cables.

-> unwanted digging can cause
environmental pollution.

Q2) How does an Isolator differ from a Circuit Breaker?

Ans) Isolator is an off-load device while circuit breaker is an on-load device. Isolator is a switch operated manually, which separate ~~operated~~ the circuit from the power main and discharges the trapped charges in the circuit. Isolator have the low withstand capacity as compared to that of C/B Breaker.