UCL Mechanical Engineering

MECH0015 TTT & MVC Quiz Questions

Hasha Dar

April 21, 2021

- 1 Why does the tensile strength of a steel drop with carbon content after the eutectoid composition is reached?
- 2 Shw that the area under the stress strain curve is equivalent to the elastic stored energy (in a stressed material). What part of the stress strain curve do you need?
- 3 Why is a process anneal (or stress relief anneal) not usually applied to steels above about 0.4% carbon content?
- 4 Which way do we connect up the power supply in an impressed current cathodic protection scheme and why and why should we still consider painting the buried pipelines as well (in addition to cathodically protecting it)?