ME Practice Test Questions and Answers

1. Normalizing a steel involves:

A) Heating to the austenite region and quenching in water
B) Heating to the austenite region and air cooling
C) Heating to just below the eutectoid temperature and slow furnace cooling
D) Rapid heating followed by immediate quenching in oil

2. Extrusion of metals involves:

A) Rolling a billet between two rotating rolls to reduce its cross-section
B) Forcing a heated billet through a shaped die orifice by ram pressure to produce a continuous profile
C) Drawing a wire through successively smaller dies
D) Hammering a billet between flat dies to shape it

3. Galvanic corrosion occurs when:

A) A metal is exposed to an oxidizing acid solution
B) Two dissimilar metals are in electrical contact in an electrolyte, causing the less noble metal to corrode preferentially
C) A single metal undergoes uniform dissolution in saline water
D) Stray electrical currents pass through a metal structure

4. Martensite in steel is formed by:

A) Slow furnace cooling of austenite
B) Rapid quenching of austenite, preventing diffusion-based transformation
C) Tempering of bainite at high temperature
D) Prolonged holding at the eutectoid temperature

Answers: 1-B 2-B 3-B 4-B