Lesson 2 – Question Bank

[A] Answer the following in short

1. What is domain?
2. What is mean by Langevin's function?
3. Define saturation magnetization
4. Mention the drawback of Langevin's theory.
5. Explain Weiss theory of paramagetism.

[B] Answer the following in detail

1. What are the drawbacks of the Langevin's classical theory of paramagetism? Explain how the drawback of this theory is overcome in Weiss theory and hence derive an expression for the susceptibility of a paramagnetic material using Weiss theory.
2. Discuss the Curie-Weiss Law- Weiss for the theory of paramgnetism.
3. What is diamagnetic material? Explain the Langevin's classical theory of diamagnetism and hence derive the expression for the susceptibility of a diamagnetic material.
4. What is paramagnetic material? Explain the Langevin's classical theory of paramagnetism and hence derive the expression for the susceptibility of a paramagnetic material.