Module-8: Hypersonic vehicle design consideration

Questions:

1. How is the design of hypersonic vehicle different from the design of a subsonic speed vehicle?
2. What are the different types of thermal protection systems?
3. Sketch the typical flowfield in hypersonic flow and describe any one drag reduction technique.
4. What are the possible ways in which drag and surface heat transfer rates can be reduced simultaneously?
5. Explain in detail about the stability issues for a hypersonic flight.
6. Derive the expression from motion equations for different aerodynamic parameters governing the hypersonic flight.