

Questions for Self Assessment

1. How is welding different from other manufacturing processes?
2. What are the factors affecting the selection of manufacturing processes?
3. Explain the factors to be considered for selection of a joining method?
4. How can common manufacturing processes be compared in light of their fundamental principles?
5. What are factors on the basis of which welding processes can be classified?
6. Describe difficulties encountered in classification of various welding processes?
7. Which is the most preferred way of classifying welding processes?
8. What is autogenous weld?
9. How does filler metal affect the solidification of the weld?
10. How can fusion welding processes be distinguished from pressure welding processes?
11. What are fundamental mechanisms of developing weld joints by pressure welding processes?
12. What are difficulties in classifying following welding processes
 - i. Electroslag welding
 - ii. Flash butt welding
13. What are cast weld processes?
14. Explain the difficulty in putting electroslag welding under cast weld processes?
15. Define fusion welding processes and enlist fusion welding processes.
16. What is rationale behind putting the flash butt welding and high frequency induction welding process under resistance welding processes?
17. Define solid stage welding processes?
18. What are fundamental mechanisms of developing weld joints using solid state processes?
19. How the heat generated is used in different welding processes?
20. What are approaches used for heat generation in welding?

21. How does energy density associated with a particular welding processes affect the weldability and performance of weld joint?
22. Compare different welding processes in respect of power density and temperature.
23. Does energy density associated with a welding process affect HAZ and distortion tendency?