Advanced Manufacturing Processes

Phase Four: Assignment and self-study questions:

Attempt the following based on your understanding, referring the web-lectures, presentation

MODULE III

1.) Classify the non-conventional machining methods based on different ways.
2.) What is the principle difference between AJM and AWJM and where are these processes used?
3.) Which are the main process parameters that affect the machining performance in USM, how can they be set to get (a) the maximum material removal. (b) higher surface finish.
4.) Which are the variant processes in ECM, classify them along with their applications.
5.) Which processes parameters affect the material removal and tool wear in ECDM?
6.) What are the principle advantages and applications of LBM.
7.) Amongst the advanced manufacturing processes seen in module -3, list out the green processes or the processes which can be hybridized into environmentally friendly one’s. Explain with proper reasoning.

Field work:

1. Visit an industry, enumerate the different manufacturing processes and classify them according to conventional and non-conventional processes. Try to identify their working principles and principle process parameters.