



M.Sc Final Exam  
Machining Technology

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Answer All The following Questions

Q1 (60 Marks)

Define, explain, and state the process for each of the following processes. Include your answer with the equipment, procedures, advantages, limitations, and the applications:

1. Abrasive Jet Machining
2. Ultrasonic Machining
3. Electrochemical Machining
4. Electron Beam Machining
5. Electrical Discharge Machining
6. Electrochemical Discharge Grinding

Q2 (40 Marks)

- a) "High Removal Rate (HRR) Machining involves the use of extremely rigid, high-power, high precision machines, to achieve material removal rates far beyond the capacity of conventional machine tools".... As a production engineer discuss and comment on the above statement.
- b) Compare between CAD, CAM with examples.
- c) Through short notes, define the basic functions that should be included when considering the relationship of CAD/CAM and Machining. Include your answer with examples.
- d) There are many advantages associated with using the CAD/CAM data as a basis for NC Programming, define them.

*Wishing the best of luck for all of you*

*Prof. Dr. Tawfik Elmidany*