

**Lab 9 Introduction to Nondestructive Evaluation**

Section 11 Group 4

Date: Month/Date/Year

Member: Peter Brown

---

**Instructions:**

- Replace the highlighted areas in yellow above with your own name, section and group numbers and correct dates,
- Watch lab demo video and review related materials in lecture notes, lab manual and other related documents,
- Provide your best answers to the following questions. Add pages as needed,
- Convert this Word worksheet sheet into pdf format and submit to Canvas.

1. (4 points) In a sentence or two, state your definition of NDE.
2. (3 pts each) Under what technology category (e.g. visual examination, chemical testing, etc.) is each of the three NDE techniques learned in this lab?
3. (5 pts) How does tap testing determine the local stiffness of the part under testing? (3 pts) What is being measured?
4. (3 pts each) What are the three basic components in an ultrasonic immersion testing system?
5. (15 pts) For the ultrasonic immersion testing, you are instructed to follow a strategy of “sequential search”. Describe what this is and how it will be executed in the lab.
6. (10 pts each) Describe what are A-, B- and C-scans in an ultrasonic testing?
7. (10 pts) From what you learn in lecture notes, how does eddy current testing work?
8. (10 pts) Why is eddy current testing useful for sorting out metallic materials?

Total 95 points

Answers: