

EML2322L Quiz 9 (10/22/19)

Answer the following questions based on the information presented in class. You can use **your** notes but do not speak with others.

Name: _____

Lab Period: **T5-6 / T7-8 / T9-10**
(circle one) **W2-3 / W4-5 / W7-8 / W9-10**
R2-3 / R4-5 / R7-8 / R9-10

List 4 features CNC machines possess that allow increased productivity:

1. _____
2. _____
3. high pressure coolant
4. stiffer structures and more powerful motors

List 4 drawbacks of CNC machining centers:

1. _____
2. _____
3. require more frequent & more costly maintenance
4. often slower for making one simple part / feature

List and define the two common methods of programming CNC machines:

1. conversational programming
2. _____

Explain the two *types* of parts CNC machines are better suited for over manual machines.

1. complex parts requiring multiple axes of simultaneous motion
2. _____

List two part features CNC machines can make but manual machines cannot (at least not easily):

1. _____
2. _____

For what type of parts are manual machines a better choice than CNC machines?

CNC machines always require less time to make a part than manual machines?

TRUE / FALSE

Which of the following machines in the lab *could* be automated via CNC technology:

- | | |
|------------------------------------|-------------------------------------|
| 1. milling machine | 4. sheetmetal shear |
| 2. lathe | 5. sheetmetal brake |
| 3. welder | 6. sheetmetal punch |

List the easiest mistake to make when changing tools on milling machines:

List 3 things you should check before / when turning on milling machines:

1. _____
2. _____
3. _____

List the most important rule when using manual lathes (in the laboratory or elsewhere):

All sheetmetal parts are razor sharp after shearing and should therefore be deburred immediately after cutting:

TRUE / FALSE

This is the point in the semester when a serious accident is most likely to occur because of how easy it is to drop our guard and forget how dangerous the equipment can be if not used properly:

TRUE / FALSE

What are the principal benefits of allocating individual member tasks via a work schedule?

- A. It allows the team to honestly decide if it possesses adequate resources to complete the project within the allotted timeframe
- B. It allows the team to prepare for each lab session and work more efficiently
- C. It facilitates individual accountability
- D. All of the above

OPTIONAL FREE RESPONSE QUESTION ON THE BACK SIDE OF THE PAGE >>>

