

EML2322L Quiz 6 (10/1/19)

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

Which of the following statements are true:

- A. *sheetmetal* refers to workpieces with a high ratio of surface area to thickness
- B. *sheets* are defined as $\leq 1/4$ " in thickness
- C. *plates* are defined as $> 1/4$ " in thickness
- D. *pulling, pushing* and *stretching* are the most common sheetmetal operations

Based on last week's sheetmetal demonstration, the lab has the following sheetmetal capabilities:

- A. shear
- B. brake (i.e. bending machine)
- C. punch press for creating round holes
- D. deep drawing / stretch forming

What is the structural benefit of bending sheetmetal edges / flanges:

Circle key elements to decision matrices:

- A. clearly defined & weighted objectives
- B. justified magnitude assignments with traceable supporting data
- C. always try to use linear score assignments
- D. highest scoring concept wins (unless there is a packaging incompatibility)

Why are separate evaluation matrices created for separate functional subunits of a design?

Manufacturing time is an example of a qualitative assessment?

TRUE / FALSE

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

What are three things that can cause calipers to measure inaccurately?

- 1. failure to zero the calipers before each use
- 2. debris, chips, or burrs on measured surfaces
- 3. failure to hold the jaws perpendicular to the measured surfaces
- 4. inadequate or excessive closing pressure

Your group must have a *fully dimensioned, appropriately toleranced* part drawing for each part manufactured in the lab.

TRUE / FALSE

If anyone in your group doesn't understand how each part of your design works, that person will be instructed to stop working until they do.

TRUE / FALSE

What should you do if anyone in your group makes excuses for not completing their work on time or at an acceptable quality:

- A. **accept effort, not excuses and instruct the person to redo the assignment**
- B. **make a record of their work quality or tardiness on your meeting documentation**
- C. **if the problem isn't resolved within 48 hr., get Mike involved because you're here to learn, not to coddle uncaring teammates**
- D. **wait to confront the problem in hopes that doing so may avoid conflict**

Purchase orders must be submitted next week before using ANY raw materials in the lab?

[show Purchase Order Request Form]

TRUE / FALSE

ECN's are used to formally track design changes and corrections through the project prototyping and life-cycle phase? [show ECN Form]

TRUE / FALSE