



Introduction to Engineering Design

Final Examination

Part A

Winter 2004-05

Student Name: _____

Date: _____

Class Period: _____

Total Points: _____

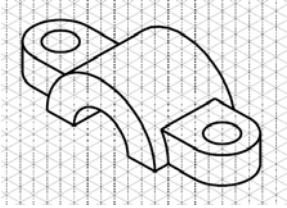
Multiple Choice

1point each

Directions: Select the letter of the response which best completes the item or answers the question.

- Many times _____ are/is conducted to get ideas for product design.
A. phone-a-thons
B. advertising campaigns
C. cost analysis
D. market research
- Developing ideas in the form of lists or sketches for a design is called _____.
A. brainstorming.
B. researching.
C. ideation.
D. physical modeling.
- An addition or improvement to a product that already exists is called a(n) _____.
A. serendipitous event.
B. innovation.
C. invention.
D. design brief.
- The Principle of Design that is related to the relationship of sizes to one another is called _____.
A. balance.
B. proportion.
C. subordination.
D. repetition.
- Factors that limit or restrict a design are called _____.
A. implementations.
B. criteria.
C. constraints.
D. factoids.
- One Principal of Design that focuses in on the visual “weight” of a designed product is called _____.
A. balance.
B. unity.
C. rhythm.
D. repetition.
- A pattern of lines that are used to represent where an object has been cutaway to “see” the inside surfaces of an object is called _____.
A. hidden lines.
B. phantom lines.
C. construction lines.
D. section lines.

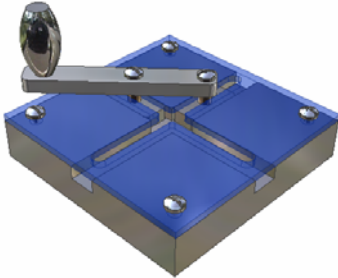
8.



This type of sketch is called a(n) _____ .

- A. oblique.
- B. isometric.
- C. two point perspective.
- D. section view.

9.



This type of drawing is known as a(n) _____ .

- A. orthographic projection.
- B. auxiliary view.
- C. perspective.
- D. revolution.

10. Two methods of building complex geometries within a 3D modeler are _____ and _____ .

- A. expansion, contraction.
- B. additive, subtractive.
- C. slicing, dicing.
- D. AND logic, OR logic.

11. The coordinate system that utilizes a distance and an angle as its input is called _____ .

- A. angularity.
- B. relative.
- C. absolute.
- D. polar.

12. Which selection listed below is **NOT** a 2D sketch constraint?

- A. Fixed
- B. Spline
- C. Coincident
- D. Parallel

13. Which of the following entities can be used as the center of a polar array?

- A. Work point
- B. Work plane
- C. Work axis
- D. Path

14. Hole, chamfer, fillet, countersink, counterbore, and shell are all examples of _____ .

- A. placed features.
- B. planes.
- C. profiles.
- D. paths.

36. Modifications that are brought about by improving processes or products are known as _____.
- A. Innovation Creep.
 - B. Technological Change.
 - C. Total Quality Management.
 - D. Engineering Marvels.
37. Joining _____ can provide educational opportunities, enable one to receive journals and other printed material related to the job, serve as an avenue for the exchange of ideas, and can provide a means to be recognized and to recognize others for their accomplishments.
- A. professional organizations
 - B. service organizations
 - C. alumni associations
 - D. unions
38. Groups of occupational titles in related fields are called _____.
- A. job circles.
 - B. occupational organizations.
 - C. career clusters.
 - D. careers.
39. Which of the following professions entails complex analysis and design and development of solutions to complex problems?
- A. Engineer
 - B. Scientist
 - C. Technician
 - D. Craftsperson
40. A(n) _____ worker is a person who has obtained a level of competence through education and/or experience in an occupational area.
- A. unionized
 - B. skilled
 - C. unskilled
 - D. certified