Fundamentals of Solid Modeling and Graphics Communication 7th edition Bertoline Test Bank

SKU: 9780073375397-TEST-BANK

Chapter 02 Problems: Role of the 3D Model in the Product Li KEY

1. Which of the following characteristics exists in the traditional design process?

A. Activities typically happen concurrently to design a product
B. Information flows in a linear path from one design task to another
C. It is typically uses solid modeling and product data management systems
D. Ideation, refinement, and implementation are stages within the design process

Accessibility: Keyboard Navigation
Chapter: 02 Role of the 3D Model in the Product Lifestyle
Section: 02.01 CAD Model as Repository

2. The concurrent engineering model tends to use what medium to communicate design information between groups?

A. 3D models
B. Detail drawings
C. Product metadata
D. Engineering change orders

Accessibility: Keyboard Navigation
Chapter: 02 Role of the 3D Model in the Product Lifestyle
Section: 02.06 Multiple Enterprise Collaboration

3. Which of the following statements best characterizes the current state of engineering documentation?

A. It is used primarily by companies that are not market leaders in their industry
B. It is used throughout the product lifecycle in various forms
C. The process of creating engineering documentation is enabled by compatible systems from separate vendors
D. It is highly effective based on the state of the technology

Accessibility: Keyboard Navigation
Chapter: 02 Role of the 3D Model in the Product Lifestyle
Section: 02.01 CAD Model as Repository

4. Which of the following best describes the needs for engineering documentation?

A. Specification of technical and procedural information
B. Archival of design ideas and legal status
C. Standardized forms of communication and information presentation
D. All of these choices are correct.

Accessibility: Keyboard Navigation
Chapter: 02 Role of the 3D Model in the Product Lifestyle
Section: 02.02 CAD Model as Communications Medium

5. Which of the following items best describes the role of CAD in an organization?

A. It generates artifacts that are of little or no significant value
B. Speed is a more important factor than quality when making geometry
C. CAD enables communication and collaboration between groups
D. CAD hinders archival of intellectual property

Accessibility: Keyboard Navigation
Chapter: 02 Role of the 3D Model in the Product Lifestyle
Section: 02.06 Multiple Enterprise Collaboration

6. The 3D CAD model holds which of the following object attributes?

A. Geometry
B. Materials specifications
C. Dimensional information
D. All of these choices are correct.

Accessibility: Keyboard Navigation
Chapter: 02 Role of the 3D Model in the Product Lifestyle
Section: 02.05 Model-based Enterprise

7. Which of the following is NOT a key characteristic of a model-based enterprise?

A. Drawings are used as a basis of communication
B. Models are used for machining
C. Sales people can access model data to communicate with customers
D. Service engineers can access design model information to help with repairs

Accessibility: Keyboard Navigation
Chapter: 02 Role of the 3D Model in the Product Lifestyle
Section: 02.05 Model-based Enterprise

8. Which of the following organizational functions are impacted by the use of model-based product data?

A. Cost management
B. Supply chain management
C. Enterprise resource planning
D. All of these choices are correct.

Accessibility: Keyboard Navigation
Chapter: 02 Role of the 3D Model in the Product Lifestyle
Section: 02.08 Enabling Processes for MBE

9. The 3D solid model is capable of acting as a container for product information in a more interactive fashion as compared to traditional 2D drawings.

TRUE

Accessibility: Keyboard Navigation
Chapter: 02 Role of the 3D Model in the Product Lifestyle
Section: 02.01 CAD Model as Repository

10. A 2D drawing is depicted in the same way that people see everyday objects.

FALSE

Accessibility: Keyboard Navigation
Chapter: 02 Role of the 3D Model in the Product Lifestyle
Section: 02.01 CAD Model as Repository

11. A 3D CAD model can have several different display modes, including wireframe or shaded.

TRUE

Accessibility: Keyboard Navigation
Chapter: 02 Role of the 3D Model in the Product Lifestyle
Section: 02.01 CAD Model as Repository

12. After a part has been manufactured, a 3D CAD model can be used as a reference for inspection purposes.

TRUE

Accessibility: Keyboard Navigation
Chapter: 02 Role of the 3D Model in the Product Lifestyle
Section: 02.03 CAD Model as a Validation Mechanism

13. Because a CAD model is typically three-dimensional, it has difficulties in bridging the communications gap between workers from different countries.

FALSE

Accessibility: Keyboard Navigation
Chapter: 02 Role of the 3D Model in the Product Lifestyle
Section: 02.02 CAD Model as Communications Medium

14. Using a 2D drawing for communications between companies and their suppliers is a common process within a model-based enterprise (MBE).

FALSE

Accessibility: Keyboard Navigation
Chapter: 02 Role of the 3D Model in the Product Lifestyle
Section: 02.05 Model-based Enterprise

15. A model-based definition is not as useful as a drawing throughout the product lifecycle.

FALSE

Accessibility: Keyboard Navigation
Chapter: 02 Role of the 3D Model in the Product Lifestyle
Section: 02.05 Model-based Enterprise

16. The IGES file format continues to be dominant in the PC market but not in the mainframe market.

FALSE

Accessibility: Keyboard Navigation
Chapter: 02 Role of the 3D Model in the Product Lifestyle
Section: 02.01 CAD Model as Repository

17. Model-based manufacturing (MBm) uses 3D models to design and analyze products.

FALSE

Accessibility: Keyboard Navigation
Chapter: 02 Role of the 3D Model in the Product Lifestyle
Section: 02.05 Model-based Enterprise

18. Model-based sustainment (MBs) uses 3D models to communicate with suppliers and other partners to service and support the product while it is in use.

TRUE

Accessibility: Keyboard Navigation
Chapter: 02 Role of the 3D Model in the Product Lifestyle
Section: 02.05 Model-based Enterprise

19. Systems modeling defines the behavioral characteristics and component interfaces necessary for parts to fit together and perform properly inside the context of a larger product platform.

TRUE

Accessibility: Keyboard Navigation
Chapter: 02 Role of the 3D Model in the Product Lifestyle
Section: 02.07 System-of-systems Modeling for MBE

20. The model-based enterprise model includes both a technical view and a customer view.

FALSE

Accessibility: Keyboard Navigation
Chapter: 02 Role of the 3D Model in the Product Lifestyle
Section: 02.08 Enabling Processes for MBE

Chapter 02 Problems: Role of the 3D Model in the Product Li Summary

Category	*# of Questions*
Accessibility: Keyboard Navigation	20
Chapter: 02 Role of the 3D Model in the Product Lifestyle	20
Section: 02.01 CAD Model as Repository	6
Section: 02.02 CAD Model as Communications Medium	2
Section: 02.03 CAD Model as a Validation Mechanism	1
Section: 02.05 Model-based Enterprise	6
Section: 02.06 Multiple Enterprise Collaboration	2
Section: 02.07 System-of-systems Modeling for MBE	1
Section: 02.08 Enabling Processes for MBE	2