1 / 20

Which of the following is a reason why many parts and components are best bought from suppliers?

A) To ensure customization and uniqueness of the product
B) To reduce reliance on external sources
C) To save time and effort in manufacturing
D) To avoid quality control issues
E) To maximize control over the supply chain

Seçtiğiniz cevabın işaretlendiğini görene kadar bekleyiniz.

2,00 Puan

A B C D

1 / 20

00:23:31

What can be a consequence of design choices that lead to high energy demands?

A) Increased noise pollution
B) Higher manufacturing costs
C) Greater light pollution
D) Environmental degradation
E) Improved product performance

Seçtiğiniz cevabın işaretlendiğini görene kadar bekleyiniz.

2,00 Puan

A B C D E

In finite element analysis (FEA), what is the purpose of creating a mesh?

A) To visualize the stress distribution in the analyzed object
B) To define the material properties of the analyzed object
C) To simulate the dynamic response of the analyzed object
D) To discretize the analyzed object into smaller, finite elements
E) To perform optimization algorithms on the analyzed object

Seçtiğiniz cevabın işaretlendiğini görene kadar bekleyiniz.

2,00 Puan

A B C D E

In the context of modeling, what determines the level of detail in a lumped element model?

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A) Size and geometry of the model
B) Specific phenomena being modeled
C) Linear elastic properties of the model
D) Intentions and scale of the model
E) Abstraction and scaling techniques

Seçtiğiniz cevabın işaretlendiğini görene kadar bekleyiniz.

2,00 Puan

A | **B** | C | D | E

Which of the following is NOT true?

A) Market surveys and gathered feedback from potential customers are not considered as a proving concept test.
B) Proving concept involves scientific endeavors and hypothesis testing.
C) Proof-of-concept focuses on designing experiments to validate or disprove hypotheses.
D) Prototypes and models are both controlled tests.
E) Proof-of-concept is used to demonstrate the functionality of new concepts or devices.

Seçtiğiniz cevabın işaretlendiğini görene kadar bekleyiniz.

2,00 Puan

A | B | C | **D** | E

What is true about parallel systems?

A) They require all components to fail for the system to fail.
B) They are less reliable than series systems.
C) They have lower costs compared to series systems.
D) They have no backup or replacement parts.
E) They are not commonly used in engineering design.

Seçtiğiniz cevabın işaretlendiğini görene kadar bekleyiniz.

2,00 Puan

A | B | C | D

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Seçtiğiniz cevabın işaretlendiğini görene kadar bekleyiniz.

2,00 Puan

A | B

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What is the primary focus of Design for Assembly (DFA)?

A) Minimizing material costs in the production process
B) Optimizing manufacturing cycle times
C) Ensuring efficient assembly of product components
D) Enhancing product aesthetics and design appeal
E) Maximizing component diversity for assembly flexibility

Seçtiğiniz cevabın işaretlendiğini görene kadar bekleyiniz.

2.00 Puan

A B C

1 / 20 00:24:00

Which of the following is NOT true?

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D) Prototypes and models are both controlled tests.
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Seçtiğiniz cevabın işaretlendiğini görene kadar bekleyiniz.

2,00 Puan

A B C D E

Which of the following is not an advantage or purpose of design optimization (topological or parametric) in engineering?

A) Achieving lightweight designs for improved efficiency
B) Increasing product stiffness and structural integrity
C) Enhancing design creativity and innovation
D) Reducing manufacturing costs and production time
E) Improving collaboration and communication among team members

Seçtiğiniz cevabın işaretlendiğini görene kadar bekleyiniz.

2,00 Puan

A B C D E

What is the typical procedure for performing structural analysis in ANSYS?

A) Importing the CAD model, creating a mesh, setting up material properties, defining boundary conditions, applying loads and constraints, and solving the system of equations.
B) Conducting a modal analysis to identify natural frequencies and mode shapes of the structure.
C) Defining optimization variables, objectives, and constraints, running the optimization

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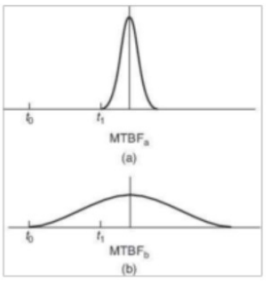
solver, and analyzing the results.

D) Performing a fatigue analysis to assess the structural durability and fatigue life.

E) Pre-processing the model, post-processing the results, and validating the analysis against experimental data.

What does it mean when two failure distributions have the same mean time between failures (MTBF) but different dispersions as shown in the figure? (A: $MTBF_a$; B: $MTBF_b$)

A) Both components have the same reliability
B) Both components have the same failure rate
C) Component A is more reliable than Component B
D) Component B is more reliable than Component A
E) Both components have the same failure probability



Seçtiğiniz cevabın işaretlendiğini görene kadar bekleyiniz.

2,00 Puan

A | B | **C** | D | E

Kontrol Paneli

Derslerim

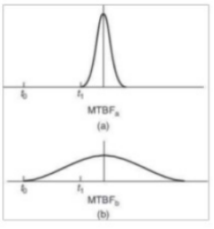
Toplantılar

5 / 20

00:21:02

What does it mean when two failure distributions have the same mean time between failures (MTBF) but different dispersions as shown in the figure? (A: $MTBF_a$; B: $MTBF_b$)

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Seçtiğiniz cevabın işaretlendiğini görene kadar bekleyiniz.

2,00 Puan

A | B | **C** | D | E

Bu Soruyu Boş Bırak

İleri >

Cevap kaydedildi. ×

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1 / 20

00:19:39

Which of the following design choices can contribute to maintainability?

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A) Complex part access
B) Elimination of redundancy
C) Expensive design feature choices
D) Preventive/predictive maintenance
E) Limited spare parts inventory

Seçtiğiniz cevabın işaretlendiğini görene kadar bekleyiniz.

2,00 Puan

A B C D E

Cevap kaydedildi. ×

What does the bill of materials (BOM) provide in the context of design for manufacturing and assembly?

A) The order of parts assembly in an assembly chart
B) Cost estimation for the designed object
C) Specifications for manufacturing processes
D) Engineering change order management
E) Logistics and distribution optimization techniques

Seçtiğiniz cevabın işaretlendiğini görene kadar bekleyiniz.

2,00 Puan

A B C D E

7 / 20 00:19:11

Calculate the present value of $10,000 received after 5 years, assuming an annual discount rate of 8%.

A) $6,140
B) $6,805
C) $7,020
D) $8,214
E) $8,504

$$V_P = \frac{V_F}{(1+r)^t}$$

Seçtiğiniz cevabın işaretlendiğini görene kadar bekleyiniz.

2,00 Puan

A B C D E

What is the purpose of redundancy in engineering design?

A) To reduce system costs and increase reliability.
B) To eliminate the need for backup or replacement parts.
C) To address the weakest link issue and improve reliability.
D) To ensure that all system components fail simultaneously.
E) To minimize the consequences of failure and cost considerations

Seçtiğiniz cevabın işaretlendiğini görene kadar bekleyiniz.

2,00 Puan

A B C D E

Bu Soruyu Boş Bırak

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C) Defining optimization variables, objectives, and constraints, running the optimization solver, and analyzing the results.
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E) Pre-processing the model, post-processing the results, and validating the analysis against experimental data.

Seçtiğiniz cevabın işaretlendiğini görene kadar bekleyiniz.

2,00 Puan

A B C D E

2 / 20 00:22:54

What is the primary focus of Design for Assembly (DFA)?

A) Minimizing material costs in the production process
B) Optimizing manufacturing cycle times
C) Ensuring efficient assembly of product components
D) Enhancing product aesthetics and design appeal
E) Maximizing component diversity for assembly flexibility

Seçtiğiniz cevabın işaretlendiğini görene kadar bekleyiniz.

2,00 Puan

A B C D E

Bu Soruyu Boş Bırak

Sınavı Bitir İleri >

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

2 / 20 00:21:34

Which of the following is NOT a variate used to measure reliability?

A) Time
B) Distance
C) Cycles of operation
D) Cost
E) Temperature

Seçtiğiniz cevabın işaretlendiğini görene kadar bekleyiniz.

2,00 Puan

A B C D E

In the context of modeling, what determines the level of detail in a lumped element model?

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Seçtiğiniz cevabın işaretlendiğini görene kadar bekleyiniz.

2,00 Puan

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A B C D E

Cevap kaydedildi. ×

1 / 20

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Seçtiğiniz cevabın işaretlendiğini görene kadar bekleyiniz.

2,00 Puan

A B

You are tasked with analyzing a complex mechanical system to ensure its performance and reliability. The system consists of multiple components and is subjected to various operating conditions. To thoroughly assess the system's behavior, you decide to conduct a series of analyses using ANSYS. The system operates in a high-temperature environment, and it is crucial to evaluate the thermal behavior and thermal stresses before considering the structural response and natural frequencies. Additionally, understanding potential resonance issues is important to ensure the system's reliability.

Considering these requirements, determine the most appropriate order of analysis to be conducted in ANSYS.

A) Thermal steady state analysis, structural analysis
B) Structural analysis, thermal steady state analysis
C) Modal analysis, structural analysis, thermal steady state analysis
D) Thermal steady state analysis, structural analysis, modal analysis
E) Structural analysis, Modal analysis, thermal steady state analysis

Seçtiğiniz cevabın işaretlendiğini görene kadar bekleyiniz.

2,00 Puan

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A B C D E

Why is SolidWorks Design Study used for design optimization?

A) To analyze the structural integrity and performance of a design.
B) To generate realistic renderings and visualizations of a product.
C) To evaluate the environmental impacts and sustainability of a design.
D) To optimize the parametric variables and achieve the desired design goals.
E) To facilitate collaboration and communication among design team members.

Seçtiğiniz cevabın işaretlendiğini görene kadar bekleyiniz.

2,00 Puan

A B C D E

5 / 20

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2.00 Puan

A B C D

Bu Soruyu Boş Bırak

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Seçtiğiniz cevabın işaretlendiğini görene kadar bekleyiniz.

2,00 Puan

A B C D E

2 / 20

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Seçtiğiniz cevabın işaretlendiğini görene kadar bekleyiniz.

2.00 Puan

A B C D

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8 / 20

What is the number of significant figures in the value 0.0825?

A) 2
B) 3
C) 4
D) 5
E) 6

Seçtiğiniz cevabın işaretlendiğini görene kadar bekleyiniz.

2,00 Puan

A | B | C | D

Bu Soruyu Boş Bırak

Sınavı Bitir

2 / 20

What challenge can arise in the disposal of products after their useful life?

A) Noise pollution
B) Light pollution
C) Chemical leaching
D) Soil erosion
E) Traffic congestion

Seçtiğiniz cevabın işaretlendiğini görene kadar bekleyiniz.

2.00 Puan

A | B | C | D

Bu Soruyu Boş Bırak

What is a key benefit of using software such as SOLIDWORKS for sustainability analysis in engineering design?

A) It provides comprehensive environmental impact assessment throughout the product's lifecycle.
B) It optimizes manufacturing processes and reduces production costs.
C) It improves product aesthetics and design appeal.
D) It enhances communication with suppliers and customers.
E) It evaluates potential demand for the product.

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Seçtiğiniz cevabın işaretlendiğini görene kadar bekleyiniz.

2,00 Puan

A	B	C	D	E

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2,00 Puan

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2,00 Puan

A	B	C	D	E

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Seçtiğiniz cevabın işaretlendiğini görene kadar bekleyiniz.

2,00 Puan

A | B | C | **D** | E

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