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Flag
question

Which of the following isn't a stage of creep?

Select one:

- a. Fracture stage
- b. Constant creep stage
- c. Transient creep stage
- d. Steady stage creep stage

Clear my choice

- c. a & c
- d. Creep
- e. fatigue

Clear my choice

After which point is necking observed?

Select one:

- a. Ultimate strength
- b. Yield strength
- c. Fracture point
- d. Elastic point

What is the relation between fracture toughne

Select one:

- a. Fracture toughness does not depend or
- b. Fracture toughness increases with incre

Settings

Mild steel belongs to the following category

Select one:

a. alloy steel

b. low carbon steel

c. medium carbon steel

d. All of the mentioned

e. high carbon steel

Which of the following can be carbon composition of cast iron?

Select one:

a. All of them

b. 0.5%

c. 1.5%

d. 1%

e. 2.5%

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Corrosion can increase fatigue life.

Select one:

- True
- False

Which of the following is the property beco

Select one:

- a. Strength
- b. Malleability
- c. Ductility

Mild steel belongs to the following category

Select one:
a. high carbon steel
b. alloy steel
c. medium carbon steel
d. low carbon steel
e. All of the mentioned

Engineering stress-strain curve and True stress-strain curve are equal up to

Select one:
a. Elastic limit
b. Proportional limit
c. All of the mentioned
d. Tensile strength point
e. Yeild point

PERTIES OF ENGINEERING MA

Slow plastic deformation of metal under a constant stres

Select one:

- a. a & c
- b. Creep
- c. non plastic deformation
- d. fatigue
- e. Endurance

Clear my choice

What is the Eutectic reaction at 1146°C?

Select one:

- a. γ (0.8 % C) → α (0.025% C) + Fe_3C (6.67% C)
- b. L (0.53% C) + δ(0.09% C) → γ (0.8 % C)
- c. L (0.53% C) + δ(0.09% C) → γ(0.17% C)

In which of the stages, do we observe a constant deformation rate?

Select one:

a. Transient creep stage

b. Constant creep stage

c. Steady stage creep stage

d. Fracture stage

Not yet answered

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Flag question

Which of the following is the property because of whi

Select one:

- a. Strength
- b. Elasticity
- c. Ductility
- d. Malleability

Clear my choice

Question 10

Not yet answered

Marked out of 1.50

Flag question

What is the Peritectic reaction at 1495°C?

Select one:

- a. L (0.53% C) + δ(0.09% C) → γ (0.8 % C)
- b. γ (0.8 % C) → α (0.025% C) + Fe_3C (6.67% C)
- c. L (0.53% C) + δ(0.09% C) → γ(0.17% C)
- d. L (4.3% C) → γ(2.1 % C) + Fe_3C (6.67% C)

Clear my choice

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Clear my choice

Question 7

Not yet answered

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Flag question

What is the Eutectic reaction at 1146°C?

Select one:

- a. γ (0.8 % C) $\rightarrow$ α (0.025% C) + Fe_3C (6.67% C)
- b. L (0.53% C) + δ(0.09% C) $\rightarrow$ γ (0.8 % C)
- c. L (0.53% C) + δ(0.09% C) $\rightarrow$ γ(0.17% C)
- d. L (4.3% C) $\rightarrow$ γ(2.1 % C) + Fe_3C (6.67% C)

Clear my choice

Question 8

Not yet answered

Which of the following is the most common type of failure in industry?

Select one:

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Question 22

Not yet answered

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Flag question

Which of the following properties is impact strength indicative of?

Select one:

- a. Stiffness
- b. Elasticity
- c. Hardness
- d. Toughness
- e. All of them

Clear my choice

Question 23

Not yet answered

Marked out of 1.50

Flag question

Mild steel belongs to the following category

Select one:

- a. alloy steel
- b. All of the mentioned
- c. medium carbon steel
- d. low carbon steel
- e. high carbon steel

Question 24

Not yet

In which of the following does crack propagation occur?

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PERTIES OF ENGINEERING MATER

Which hardness method can be used to measure hardness of a si

Select one:

- a. Vickers
- b. Shore
- c. Rockwell
- d. Knoop
- e. Rockwell

Clear my choice

What is Eutectoid reaction at 727°C?

Select one:

- a. γ (0.8 % C) → α (0.025% C) + Fe_3C (6.67% C)
- b. L (0.53% C) + δ(0.09% C) → γ(0.17% C)

Brittle fracture is more dangerous than ductile fracture because _____.

Select one:
a. No warning sign
b. All of the mentioned
c. No need for extra stress during crack propagation
d. Crack propagates at very high speeds

[redacted]

Which of the following is the property because of which a material can be drawn into wires?
Select one:
a. Ductility
b. Elasticity
c. Strength
d. Malleability

[redacted]

Corrosion can increase fatigue life.

Select one:
True
False

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Up to which point on the stress-strain curve is Hooke's law valid?

Select one:

- a. Fracture point
- b. Elastic limit
- c. Proportionality limit
- d. Yield point
- e. None

Clear my choice

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Which hardness method can be used to measure hardness of a single gra

- b. Ultimate stress
- c. Tensile stress
- d. Working stress

Clear my choice

A measure of Rockwell hardness is the

Select one:

- a. Surface area of indentation
- b. Projected area of indentation
- c. Depth of penetration of indenter
- d. All of the mentioned
- e. Height of rebound

Up to which point on the stress-strain curve i

Select one:

- a. Proportionality limit

Settings

Which of the following is the numerator of factor safety formula?

Select one:
a. Tensile stress
b. Ultimate stress
c. Shear stress
d. Working stress

Buckling in a column occurs in the material due to which of the following forces?

Select one:
a. Compressive
b. Shear
c. It doesn't occur due to a force
d. Tensile

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Flag question

a. L (0.53% C) + δ(0.09% C)

b. L (0.53% C) + δ(0.09% C) → γ (0.8 % C)

c. L (4.3% C) → γ(2.1 % C) + Fe_3C (6.67% C)

d. γ (0.8 % C) → α (0.025% C) + Fe_3C (6.67% C)

Clear my choice

Question 12

Not yet answered

Marked out of 1.50

Flag question

Engineering stress-strain curve and True stress-strain curve are equal up to

Select one:

a. All of the mentioned

b. Tensile strength point

c. Yeild point

d. Proportional limit

e. Elastic limit

Clear my choice

the Young's modulus is given to $7e^{10}$. What will be

Stainless steel is so called because of its _____.

Select one:
a. Brittleness
b. High corrosion resistance
c. High ductility
d. High strength

How is brittleness related to impact strength?

Select one:
a. Brittleness is inversely proportional to a square of impact strength
b. Brittleness is directly proportional to a square of impact strength
c. Brittleness is inversely proportional to impact strength
d. Brittleness is directly proportional to impact strength

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26

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Ductility is measured in terms of

Select one:

- a. Ultimate tensile strength
- b. Percentage elongation
- c. Modulus of toughness
- d. Modulus of resilience
- e. All of the mentioned

Clear my choice

Arrange the following in increasing ord

Select one:

What is the Eutectic reaction at 1146°C?

Select one:
a. L (0.53% C) + δ(0.09% C) → γ(0.17% C)
b. L (4.3% C) → γ(2.1 % C) + Fe3C (6.67% C)
c. γ (0.8 % C) → α (0.025% C) + Fe3C (6.67% C)
d. L (0.53% C) + δ(0.09% C) → γ (0.8 % C)

[redacted]

Which of the following is the most common type of failure in industry?...

Fatigue

[redacted]

Which hardness method can be used to measure hardness of a single grain

Select one:
a. Shore
b. Knoop
c. Vickers
d. Rockwell
e. Rockwell

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Question 16
Not yet answered
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Flag question

Which of the following is the numerator of factor safety formula?

Select one:
- a. Working stress
- b. Shear stress
- c. Tensile stress
- d. Ultimate stress

Clear my choice

Question 17
Not yet answered
Marked out of 1.50
Flag question

After which point is necking observed?

Select one:
- a. Elastic point
- b. Fracture point
- c. Ultimate strength
- d. Yield strength

Clear my choice

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Ductility is measured in terms of

Select one:

- a. Modulus of resilience
- b. All of the mentioned
- c. Modulus of toughness
- d. Ultimate tensile strength
- e. Percentage elongation

Clear my choice

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Buckling in a column occurs in the material due to which of the following

Select one:

- a. It doesn't occur due to a force
- b. Tensile
- c. Shear
- d. Compressive

Clear my choice

29

In which of the stages, do we observe a constant deformation rate?

search

- b. Stiffness
- c. Hardness
- d. Toughness
- e. Elasticity

Clear my choice

How is brittleness related to impact strength?

Select one:

- a. Brittleness is inversely proportional to a square of impact stre
- b. Brittleness is inversely proportional to impact strength
- c. Brittleness is directly proportional to a square of impact stren
- d. Brittleness is directly proportional to impact strength

Diffusion is the result of:

Select one:

- a. Concentration gradient
- b. Random motion of particles

Question 31

Not yet answered

Marked out of 1.50

Flag question

What is the relation between fracture toughness and thickness?

Select one:

- a. Fracture toughness decreases with increase in thickness
- b. Fracture toughness increase linearly with an increase in thickness
- c. Fracture toughness does not depend on the thickness
- d. Fracture toughness increases with increase in thickness

Clear my choice

Question 32

Not yet answered

Marked out of 1.50

Flag question

The S-N curve for mild steel never becomes a horizontal line.

Select one:

- True
- False

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Question 11

Not yet answered

Marked out of 1.50

Flag question

Stainless steel is so called because of its _____.

Select one:

- a. Brittleness
- b. High strength
- c. High corrosion resistance
- d. High ductility

Clear my choice

Question 12

Not yet answered

At what temperature is steel ductile?

Select one:

What is Eutectoid reaction at 727°C?

Select one:

a. L (0.53% C) + δ(0.09% C) → γ (0.8 % C)

b. γ (0.8 % C) → α (0.025% C) + Fe3C (6.67% C)

c. L (0.53% C) + δ(0.09% C) → γ(0.17% C)

d. L (4.3% C) → γ(2.1 % C) + Fe3C (6.67% C)

Not yet answered

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Flag question

Select one:

- a. Fracture toughness decreases with increase in thickness
- b. Fracture toughness increase linearly with an increase in thickness
- c. Fracture toughness does not depend on the thickness
- d. Fracture toughness increases with increase in thickness

Question 32

Not yet answered

Marked out of 1.50

Flag question

The S-N curve for mild steel never becomes a horizontal line.

Select one:

- True
- False

At what temperature is steel ductile?

Select one:

a. -10 °C

b. -5 °C

c. 4 °C

d. -3 °C

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True

False

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At what temperature is steel ductile?

Select one:

a. -5 °C

b. -10 °C

c. 4 °C

d. -3 °C

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Which of the following isn't a stage of creep?

Select one:

a. Transient creep stage

b. Constant creep stage

c. Fracture stage

d. Steady stage creep stage

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Settings

Which of the following is the property because of which a material can be drawn into wires?

Select one:
a. Ductility
b. Strength
c. Elasticity
d. Malleability

After which point is necking observed?

Select one:
a. Elastic point
b. Yield strength
c. Fracture point
d. Ultimate strength

Slow plastic deformation of metal under a constant stress is known as

Select one:
a. non plastic deformation
b. Creep
c. fatigue
d. a & c
e. Endurance

A measure of Rockwell hardness is the

Select one:

a. Height of rebound

b. Surface area of indentation

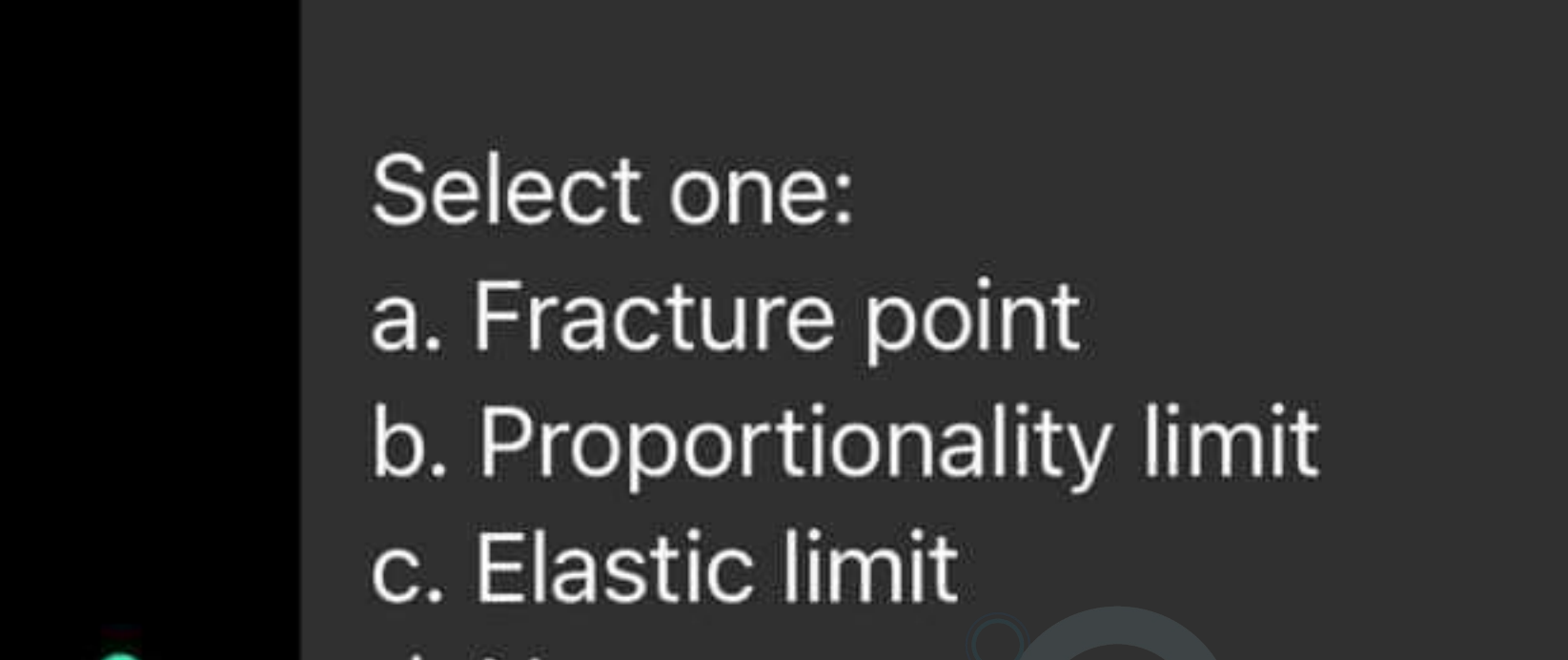
c. All of the mentioned

d. Depth of penetration of indenter

e. Projected area of indentation

Up to which point on the stress-strain curve is Hooke's law valid?

Select one:
a. Fracture point
b. Proportionality limit
c. Elastic limit
d. None
e. Yield point



Arrange the following in increasing order of hardness: talc, gypsum, topaz diamond.

Select one:
a. Diamond, topaz, talc, gypsum
b. Gypsum, topaz, talc, diamond
c. Talc, gypsum az, diamond
d. Topaz, gypsu alc, diamond

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Necking occurs in which of the following fractures?

Select one:

- a. Fatigue
- b. Ductile fractures
- c. Brittle fracture
- d. It doesn't occur during fracture

e to search

- a. γ (0.8 % C) → α (0.025% C) + Fe_3C (6.67% C)
- b. L (0.53% C) + δ(0.09% C) → γ(0.17% C)
- c. L (4.3% C) → γ(2.1 % C) + Fe_3C (6.67% C)
- d. L (0.53% C) + δ(0.09% C) → γ (0.8 % C)

Clear my choice

Which of the following is the numerator of factor safety form

Select one:

- a. Shear stress
- b. Ultimate stress
- c. Tensile stress
- d. Working stress

Clear my choice

A measure of Rockwell hardness is the

Select one:

- a. Surface area of indentation

24

Which hardness method can be used to measure hardness of a single grain

Select one:

- a. Shore
- b. Knoop
- c. Vickers
- d. Rockwell
- e. Rockwell

25

Mild steel belongs to the following category

Select one:

- a. high carbon steel
- b. alloy steel
- c. medium carbon steel
- d. low carbon steel
- e. All of the mentioned

Clear my choice

32

How is brittleness related to impact strength?

Select one:

- a. Brittleness is inversely proportional to a square of impact strength
- b. Brittleness is inversely proportional to impact strength
- c. Brittleness is directly proportional to a square of impact strength
- d. Brittleness is directly proportional to impact strength

3

Diffusion is the result of:

Select one:

- a. Concentration gradient
- b. Random motion of particles
- c. All of the mentioned
- d. Kinetic energy of particles

The following types of materials are usually the most ductile

Select one:
a. Hexagonal close packed lattice
b. a,b&c
c. Face centered cubic lattice
d. All of the mentioned
e. Body centered cubic lattice

Ductility is measured in terms of

Select one:
a. Percentage elongation
b. Ultimate tensile strength
c. Modulus of resilience
d. All of the mentioned
e. Modulus of toughness

Which of the following properties is impact strength indicative of?

Select one:
a. Stiffness
b. Toughness
c. Hardness
d. Elasticity
e. All of them

Question 33

Not yet answered

Marked out of 1.00

Flag question

Diffusion is the result of:

Select one:

- a. All of the mentioned
- b. Kinetic energy of particles
- c. Random motion of particles
- d. Concentration gradient

Clear my choice

tress-strain curve and True stress-strain curve are equal

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8

Which of the following is the most common type of failure in industry?

Select one:

- a. Creep
- b. Fatigue
- c. All
- d. Ductile fracture
- e. Brittle fracture

Clear my choice

9

Which of the following is the property because of which a material can be

Select one:

- a. Strength
- b. Elasticity
- c. Ductility
- d. Malleability

Clear my choice

10

What is the Peritectic reaction at 1495°C?

Select one:

Question 3

Not yet answered

Marked out of 1.50

Flag question

At what temperature is steel ductile?

Select one:

- a. -5 °C
- b. -10 °C
- c. 4 °C
- d. -3 °C

Question 4

Not yet answered

Marked out of 1.50

Flag question

Which of the following isn't a stage of creep?

Select one:

- a. Transient creep stage
- b. Constant creep stage
- c. Fracture stage
- d. Steady stage creep stage

Question 5

Not yet answered

Marked out of 1.50

In which of the following does crack propagation occur?

Select one:

- a. Ductile fracture
- b. It doesn't occur during fracture

What is the relation between fracture toughness and thickness?

Select one:

a. Fracture toughness decreases with increase in thickness

b. Fracture toughness increase linearly with an increase in thickness

c. Fracture toughness does not depend on the thickness

d. Fracture toughness increases with increase in thickness

% C in medium carbon steels ranges from _____.

Select one:
a. 0.3 – 0.6
b. 0.3 – 0.4
c. All of the mentioned
d. None
e. 0.3 – 0.5

If the Poisson's ratio is given as 0.3 and the Young's modulus is given to 7e10. What will be the value for shear modulus? (v = E/2G – 1)

Select one:
a. 3.00e10 N/m2
b. None
c. 2.72e10 N/m2
d. 2.69e10 N/m2
e. 2.59e10 N/m2

In which of the following does crack propagation occur?

Select one:
a. Ductile fracture
b. Fatigue
c. It doesn't occur during fracture
d. Brittle fracture

Diffusion is the result of:

Select one:
a. Kinetic energy of particles
b. Concentration gradient
c. Random motion of particles
d. All of the mentioned

The S-N curve for mild steel never becomes a horizontal line.

Select one:
True
False

Which of the following isn't a stage of creep?

Select one:
a. Steady stage creep stage
b. Fracture stage
c. Constant creep stage
d. Transient creep stage

Select one:

- a. Fracture point
- b. Elastic limit
- c. Proportionality limit
- d. Yield point
- e. None

Clear my choice

Which hardness method can be used to measure hardness of a sin

Select one:

- a. Shore
- b. Knoop
- c. Rockwell
- d. Vickers
- e. Rockwell

Clear my choice

Which of the following is the most common type of failure in industry?

Select one:
a. Ductile fracture
b. Creep
c. Brittle fracture
d. All
e. Fatigue

What is the Peritectic reaction at 1495°C?

Select one:
a. L (0.53% C) + δ(0.09% C) → γ (0.8 % C)
b. L (4.3% C) → γ(2.1 % C) + Fe3C (6.67% C)
c. L (0.53% C) + δ(0.09% C) → γ(0.17% C)
d. γ (0.8 % C) → α (0.025% C) + Fe3C (6.67% C)

PROPERTIES OF ENGINEERING MATERIALS

Question 1

Not yet answered

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Flag question

Which of the following can be carbon composition of cast iron?

Select one:

- a. 1%
- b. 1.5%
- c. 0.5%
- d. 2.5%
- e. All of them

Clear my choice

Question 2

A measure of Rockwell hardness is the

The expression J = M/(A.t), where J, M, A, & t are diffusion flux, mass of diffusing species, cross sectional area, and time respectively is:

Select one:
a. valid for non steady state diffusion only
b. valid for both steady and non steady state diffusion
c. valid for steady-state diffusion only
d. incorrect

Necking occurs in which of the following fractures?

Select one:
a. It doesn't occur during fracture
b. Ductile fractures
c. Brittle fracture
d. Fatigue

d. Elasticity

Clear my choice

23

In which of the stages, do we observe a constant deformation rate?

Select one:

a. Constant creep stage

b. Transient creep stage

c. Steady stage creep stage

d. Fracture stage

24

Brittle fracture is more dangerous than ductile fracture because _____

Select one:

a. No need for extra stress during crack propagation

b. All of the mentioned

c. No warning sign

d. Crack propagates at very high speeds