	/imsystem.ju.edu.jo/mod/quiz/attempt.php?attempt=580313&cmid=272732&page=3
nustion 17	
tyst	The recommended heat treatment process for the hacksaw is:
swered arked out of	
10	Select one:
Fieg .	* a. hHardening
	O b annealing
	O. c. Normalizing
	O d. Normalizing+harening
	Clear.my.choice
	5
	If the nose of the TTT diagram for an alloy is at the zero time line.
or/stavered	
Norwest put of 200	Selectore
COL T	O , a. It is difficult to harden it
	C to Special furnace is needed to harden it
	O. c. it is impossible to harden it
	Or d. It would be easy to harden it
Quemon 19	The Aurestian of the second to a first from the still over the s
The second secon	Investor 18 ortion Inclusion Inclusion Inclusion Inclusion Inclusion Inclusion Inclusion

Z X C C V J B Y N T M . < J J J J J J S J .

3

C. is magnetized

O d. is radio active

Clear my choice

### estion 8

t yet swered

arked out of

Flag lestion

uestion 9 nswer saved arked out of The limitation of the phase diagram for heat treatment purposes is that.

2

### Select one:

1.

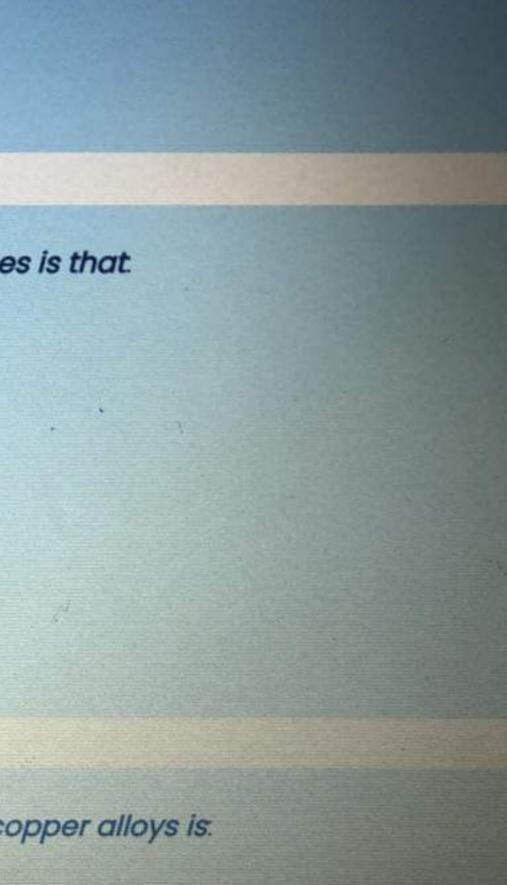
• a. it does not show the effect of cooling rate

O b. Austenite does not exist at room temperature

O c. it does not show the bainite

O d. it is used only for plain carbon steel

The cooling rate for the precipitation heat treatment process of Al-copper alloys is.



### Question 8 Not yet answered

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Q

Marked out of 3.00

P Flag question

## The severity of quenching media from low to high can be ranked as follows:

Select one:

a. insulating material or furnace, air, vegetable oil, animal oil, mineral oil, warm water, cold
 20% bring 5% counting in the second seco

20% brine, 5% caustic soda

b. 5% caustic soda, 20% brine, cold water, animal oil, warm water, animal oil, mineral oil, vegetable oil,

23

- air, insulating material or furnace
- c. insulating material or furnace, air, vegetable oil, animal oil, mineral oil, cold water, warm water,

20% brine, 5% caustic soda

d. 5% caustic soda, cold water ,20% brine, warm water, animal oil, mineral oil, vegetable oil, air,

insulating material or furnace.

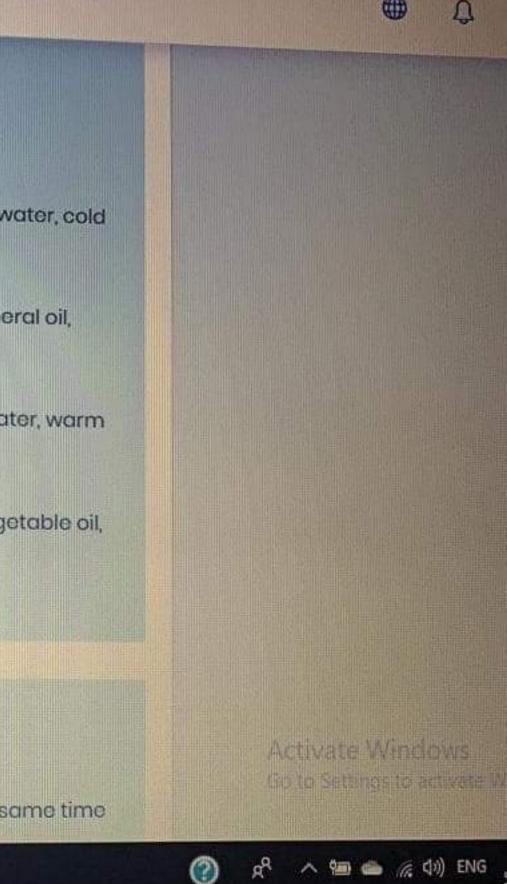
H

Question 9 Not yet answered Marked out of 3.00 Flush quenching is when:

Select one:

O a. the liquid is sprayed onto the surface and into every cavity of the part at the same time

語



#### quenching

<u>Clear my choice</u>

### Question 10

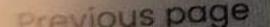
- Answer saved
- Marked out of 2.00 P Flag
- question

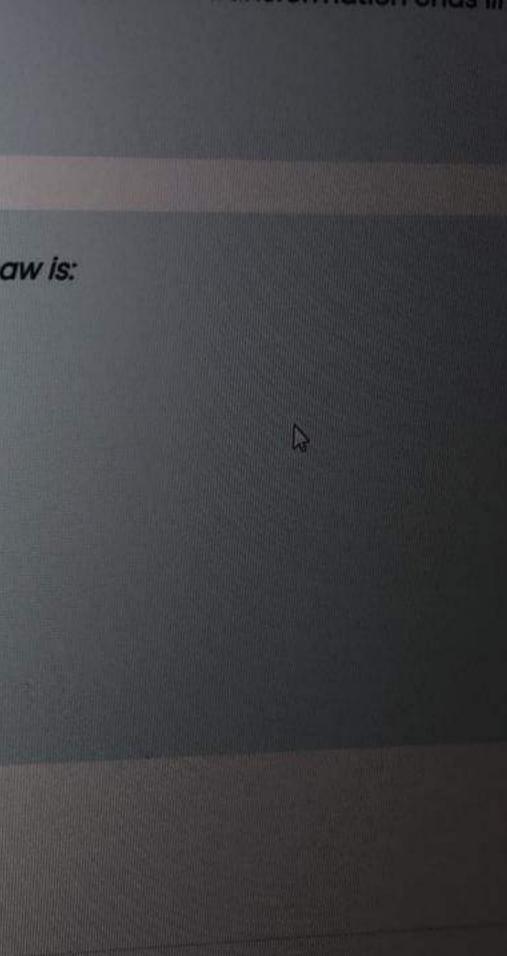
### The recommended heat treatment process for the hacksaw is:

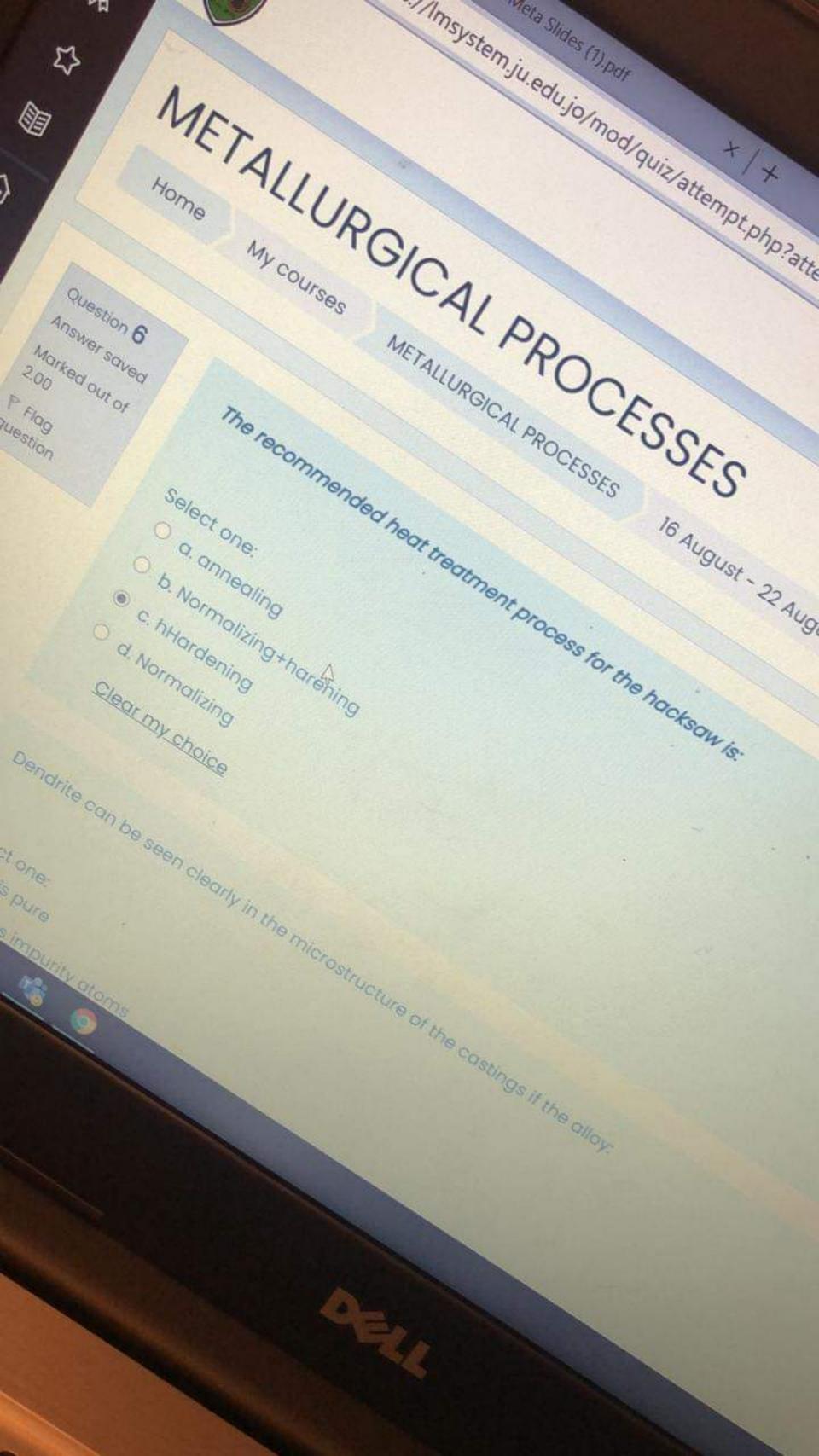
Select one:

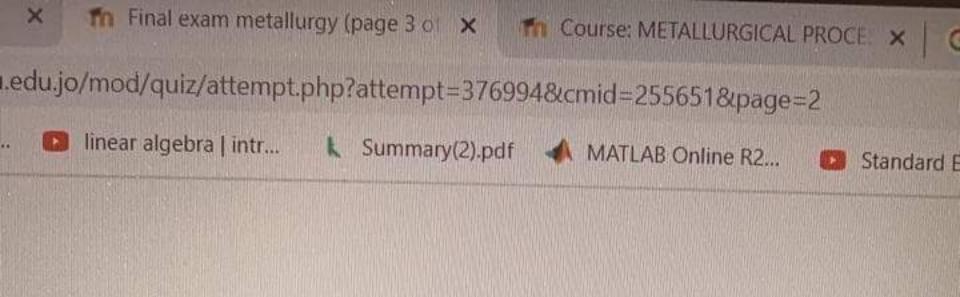
- a. hHardening
- b. Normalizing
- O c. annealing
- O d. Normalizing+harening

Clear my choice









### Clear my choice

The temperature of the formation of martensite in the CCT:

2

Select one:

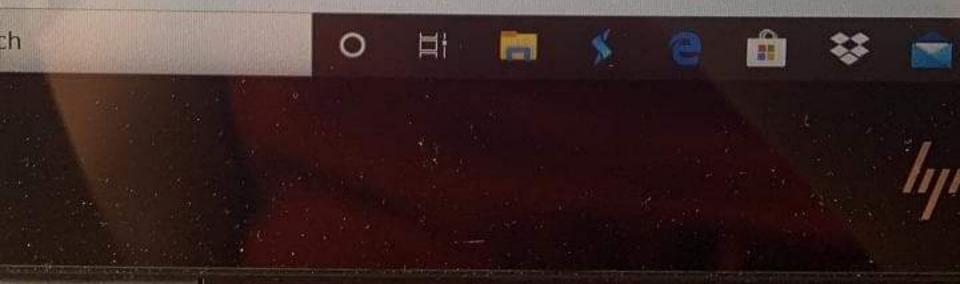
- a. is more than that for TTT diagram
- b. is the same as for TTT diagram
- c. is shifted to the right
- d. is less than that for TTT diagram

<u>Clear my choice</u>

The cooling rate for the solution heat treatment process of Al-copper

### Select one:

- 0 a. slow
- b. Very fast
- c.]moderate
- d. no matter 0



### The body centered tetragonal crystal structure is: Answer saved Marked out of 2.00 Select one: P Flag a. when a=b=c and has an atom in the center question b. when a=b=c and has an atom in the center and another on the surface C. when a=b=c and has an atom on the surface I when a=b≠c and has an atom in the center <u>Clear my choice</u> 63 Question 3 The hardenability is not affected by Answer saved Marked out of 2.00 Select one: Flag O a. quenching medium and method of question

- b. air
- C. critical cooling rate
- O d. chemical composition of steel

0

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en.

### Clear my choice

### Time left 0:09:03

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and B, crossing the transformation starts line and soaking to a certain time, soaking to a certain time but not cross the transformation ends line, then quenching

Clear my choice

Question 15 Answer saved Marked out of 2.00 P Flag question

3

No post heat treatment of the weld is recommended if the carbon equivalent (CE) is.

Select one: ● a. CE < 0.35 ○ b. 0.35 < CE < 0.55 ○ c. 0.55 < CE O d. A and B Clear my choice





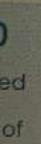
It is Ferrite and Cementite! It's just acicular

Clear my choice

/ed t of No post heat treatment of the weld is recommended if the carbon equivalent (CE) is:

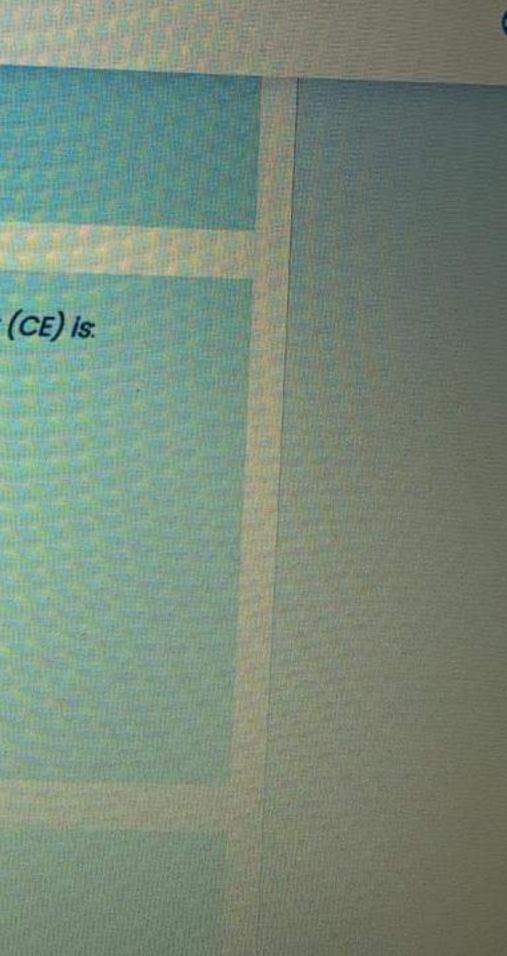
Select one:
a. CE < 0.35</li>
b. 0.35 < CE < 0.55</li>
c. 0.55 < CE</li>
d. A and B

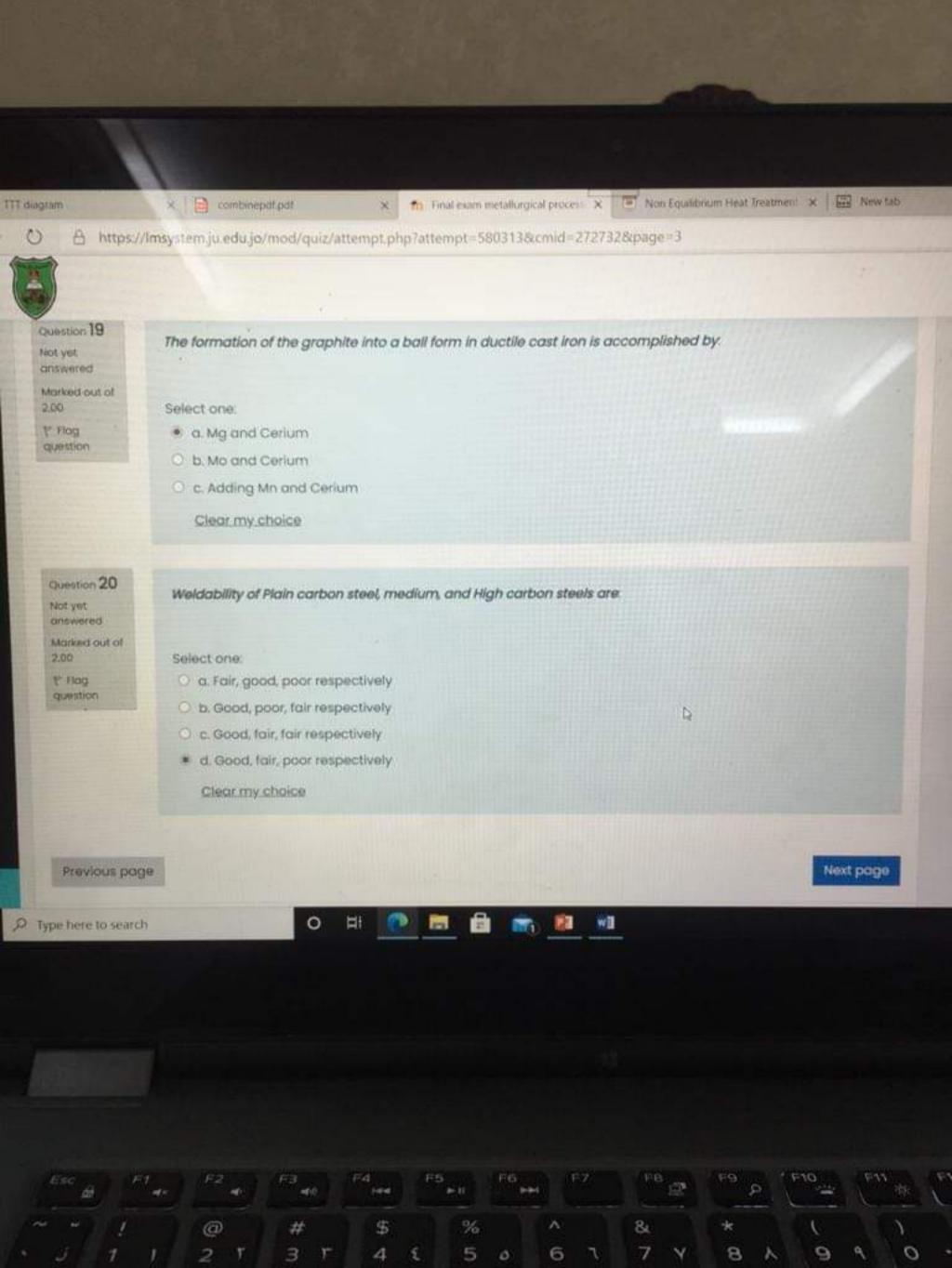
<u>Clear my choice</u>



The recommended heat treatment process for the hacksaw is:

2







#### MILTALLOROICAL PROCESSES

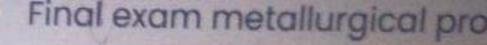
### 16 August - 22 August

The recommended heat treatment process for the Drive half-shaft for a small car is:

### Select one:

- a. normalizing
- b. normalizing + hardening
- C. Annealing
- O d. hardening
  - Clear my choice

The Ms temperature on the TTT diagram is a function of carbon content as follows.



### Not yet answered

Marked out of 3.00

P Flag question The bonding energy for ionic, metallic, secondary types can be classified respectively as follows.

2

Select one:

- a. small, large, variable
- b. variable, variable, small
- C. large, variable, small
- O d. variable, large, small

Question 7

Not yet answered

Marked out of 3.00

♥ Flag question The crystalline structure of a-non magnetic, and a- magnetic are.

凹

Select one:

O a. BCC, BCC repectively

- O b. FCC, FCC respectively
- O c. FCC, BCC repectively
- O d. BCC, FCC respectively

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Finish attempt ...

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### The hardenability is not affected by

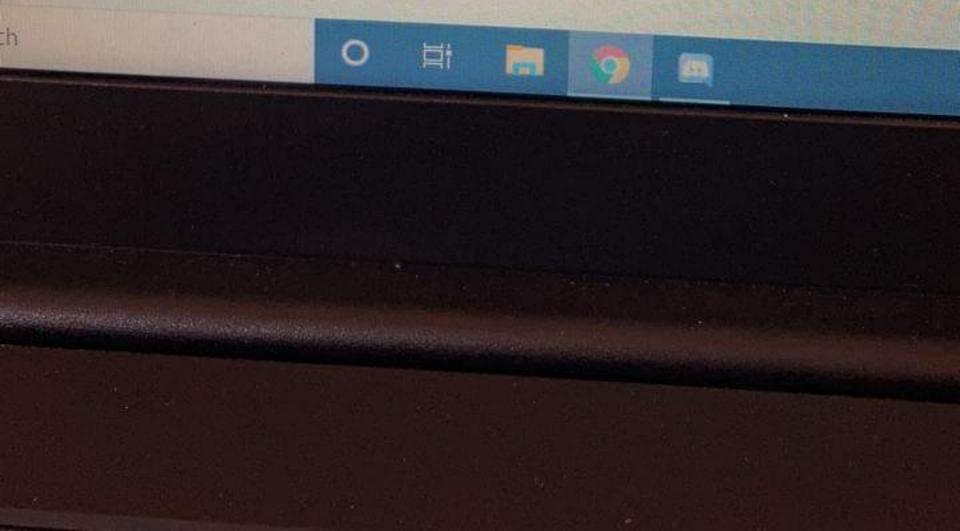
### Select one:

- a. quenching medium and method of
- O b. air
- c. critical cooling rate
- d. chemical composition of steel

## The temperature of the formation of martensite in the CCT:

### Select one:

- O a. is the same as for TTT diagram
- O b. is shifted to the right
- O c. is less than that for TTT diagram
- O d. is more than that for TTT diagram



### u.jo/mod/quiz/attempt.php?attempt=579636&cmid=272732

HW11-C G A meth G The rec G what is S Weldab

INTERNETING CONTRACTORS

Powe

### Clear my choice

Which one of the following is not equilibrium heat treatment

### Select one:

- 🔘 a. Austenizing
- O b. annealing
- e. precipitation
- d. normalizing

Clear my choice

The slowest cooling rate is obtained when steel is quenched in

- Selectione:
  - a. mixture of oil and water
    - b. fused solt
  - C. Gir
    - Clear my choice

- O b. Normalizing+harening
- O c. hHardening
- O d. Normalizing
  - Clear my choice

Question 7 Answer saved Marked out of 2.00 P Flag

question

ħ.

Dendrite can be seen clearly in the microstructure of the castings if the alloy:

Select one:

- 🔘 a. is pure
- b. has impurity atoms
- C. is magnetized
- O d. is radio active

Clear my choice

Question 8

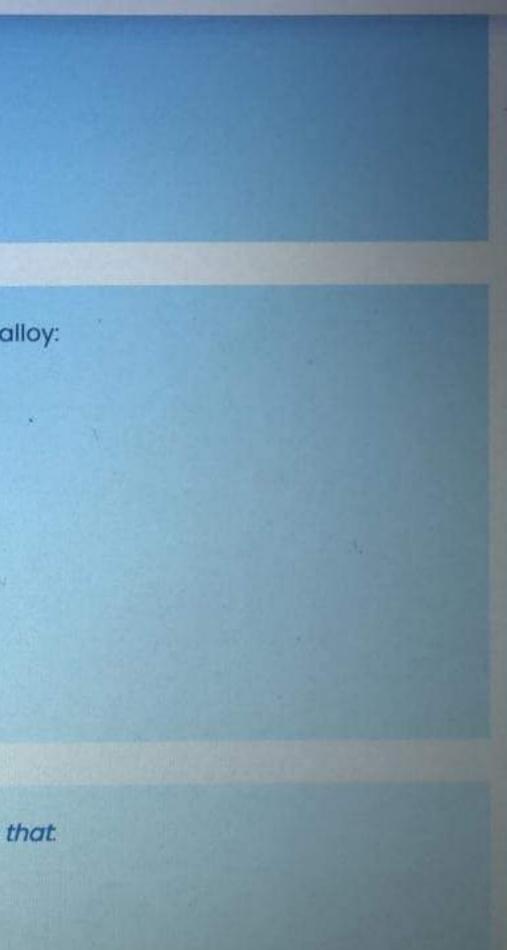
Not yet answered

Marked out of

The limitation of the phase diagram for heat treatment purposes is that.

Do

Select one:



#### Question 3

Not yet answered

Marked out of 2.00

P Flag question

### Which one of the following is not correct

Select one:

- a. Austenite has FCC structure
- O b. Martensite is a solid solution of carbon in BCC iron
- O c. The martensite which is formed during quenching is too brittle
- O d. Martensite has a BCC structure

Question 4 Not yet answered

Marked out of 2.00

F Flag

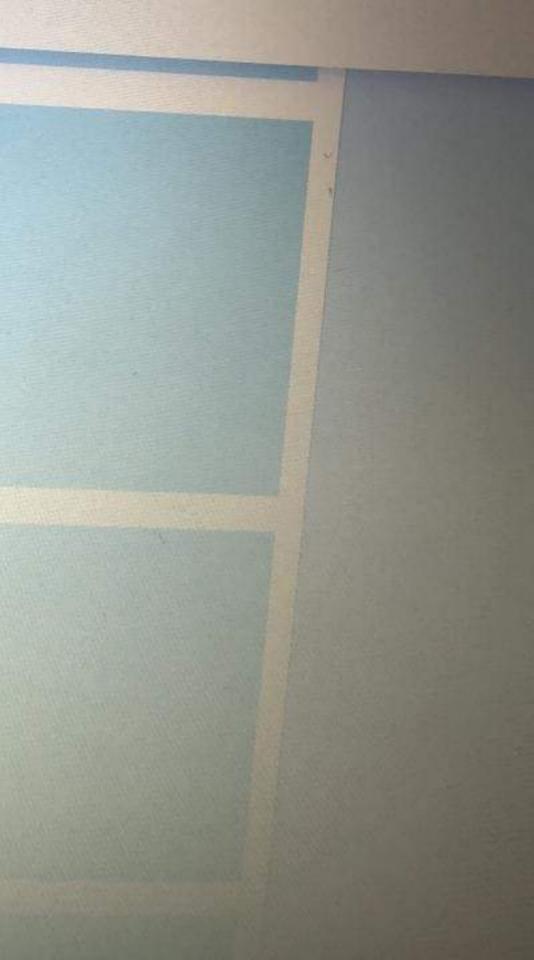
If the nose of the TTT diagram for an alloy is at the zero time line,

#### Select one:

- O a. it is impossible to harden it
- O b. It is difficult to harden it
- C c. Special furnace is needed to harden it
- O d. It would be easy to harden it

Question 5

Annealing temperature is:



Question **3** Not yet answered Marked out of 3.00

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₱ Flag question If the nose of the TTT diagram is for an alloy at the zero time line

Select one:

a. Special furnace is needed to harden it

b. It would be easy to harden it

C. It is difficult to harden it

d. it is impossible to harden it

### 63

Question **4** Not yet answered Marked out of 3.00

P Flag

question

2

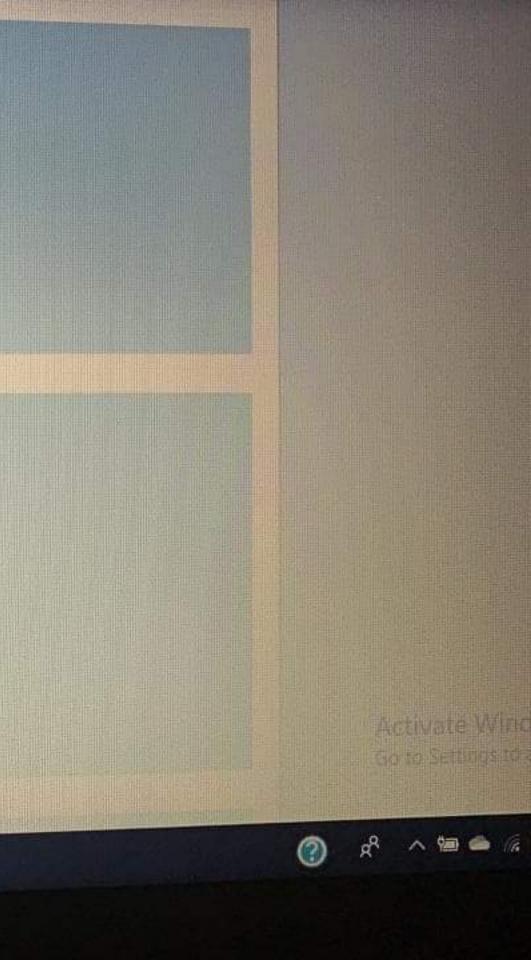
The temperature of the formation of martensite in the CCT:

四

#### Select one:

- a. is more than that for TTT diagram
- b. is shifted to the right
- O c. is less than that for TTT diagram
- O d. is the same as for TTT diagram

H



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## The ascending order of strength based on microstructure is.

### Select one:

- a. fine pearlite, bainite, T martensite 0
- b. Martensite, spherodite, fine pearlite 0
- c. Spherodite, Tmartensite, martensite 0
- Od. T martensite, bainite, fine pearlite

### estion 2 yet

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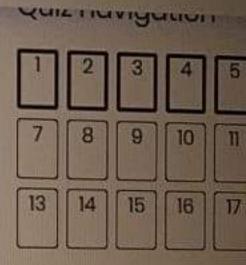
#### Bainitic microstructure in eutectoid plain carbon steel can be formed by using continuous cooling diagram if 2

### Select one:

- a. the cooling rate passes through the critical point
- b. none of the choices 0
- C. the cooling rate goes before the critical point
- O d. the cooling rate goes after the critical point

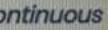
the zero time line





Finish attempt ...

Time left 0:34:46



Question 13 Not yet answered

Marked out of 2.00

Flag question The formation of the graphite into a ball form in ductile cast iron is accomplished by.

Select one:

- a. Mg and Cerium
- O b. Adding Mn and Cerium
- O c. Mo and Cerium

Clear my choice

Question 14

Not yet answered

Marked out of 2.00

Flag question The overaging mechanism in Al-Cu alloys is.

### Select one:

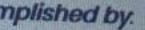
- O a. A result of the perfection in the lattice
- b. A result of the distortion in the lattice
- O c. A result of the formation of a Ms-like structure
- O d. A result of Alpha phase formation

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.0.

### Clear my choice





63

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c. It is Ferrite and Cementite! It's just acicular
 d. It is a solid solution of iron and carbon
 <u>Clear my choice</u>

The hardenability is not affected by

Select one:
a. air
b. critical cooling rate
c. quenching medium and method of
d. chemical composition of steel
<u>Clear my choice</u>

#### xam Metallurgy

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Question 9
Answer saved
Marked out of 2.00
P Flag question

If the nose of the TTT diagram for an alloy is at the zero time line,

Select one:

- a. Special furnace is needed to harden it
- b. It would be easy to harden it
- c. it is impossible to harden it
- O d. It is difficult to harden it

Clear my choice

Question 10 Answer saved Marked out of 2.00 P Flag question

The body centered tetragonal crystal structure is.

#### Select one:

- O a, when a=b=c and has an atom in the center and another on the surface
- b. when a=b≠c and has an atom in the center
- O c. when a=b=c and has an atom on the surface
- O d. when a=b=c and has an atom in the center

### <u>Clear my choice</u>

 $\square$ 



### a. A result of Alpha phase formation

Clear my choice

### Question 25

Answer saved

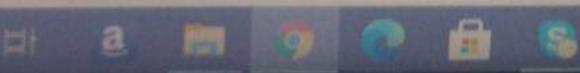
Marked out of 2.00

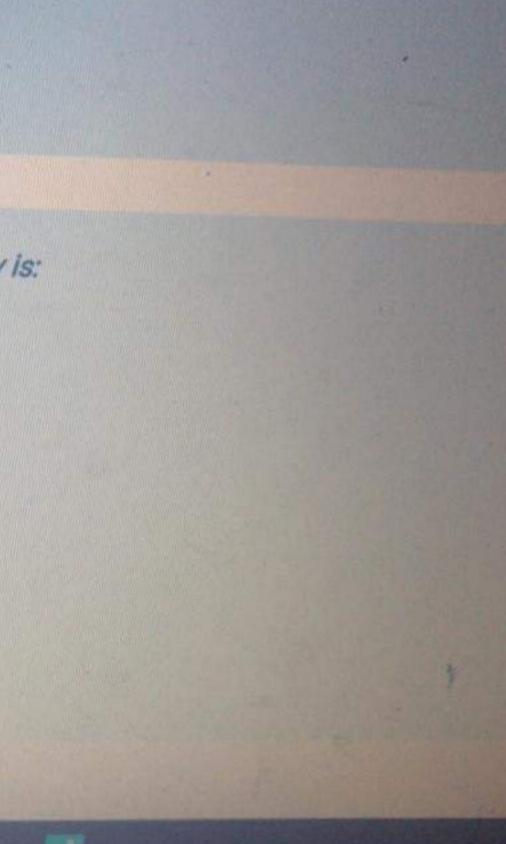
P Flag question

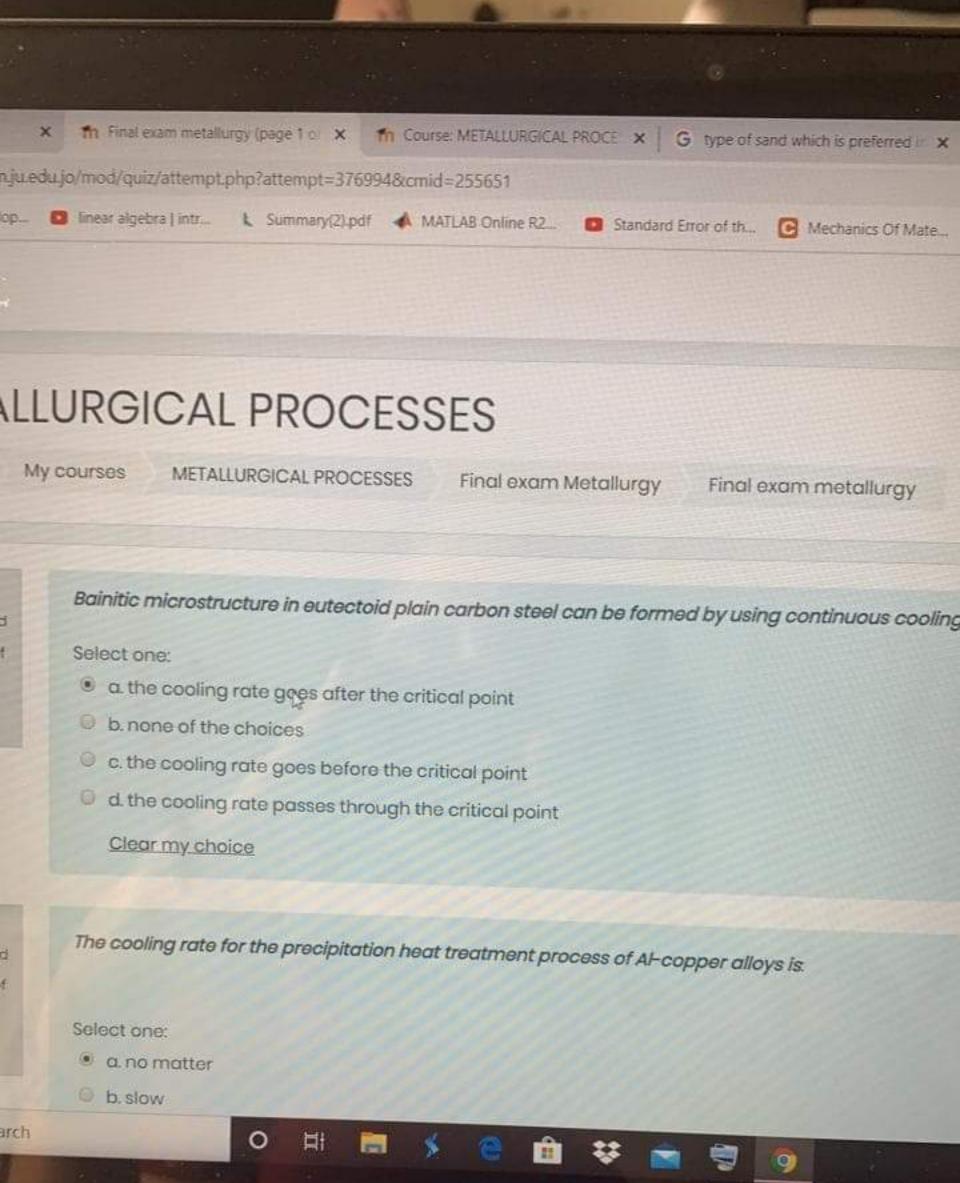
## The recommended heat treatment process for the car body is:

### Select one:

- a. normalizing + hardening
- b. normalizing.
- c. annealing
  - d. Hardening
    - Clear my choice









### <u>Clear my choice</u>

### uestion 3

- lot yet
- inswered
- Marked out of 2.00

stion 4

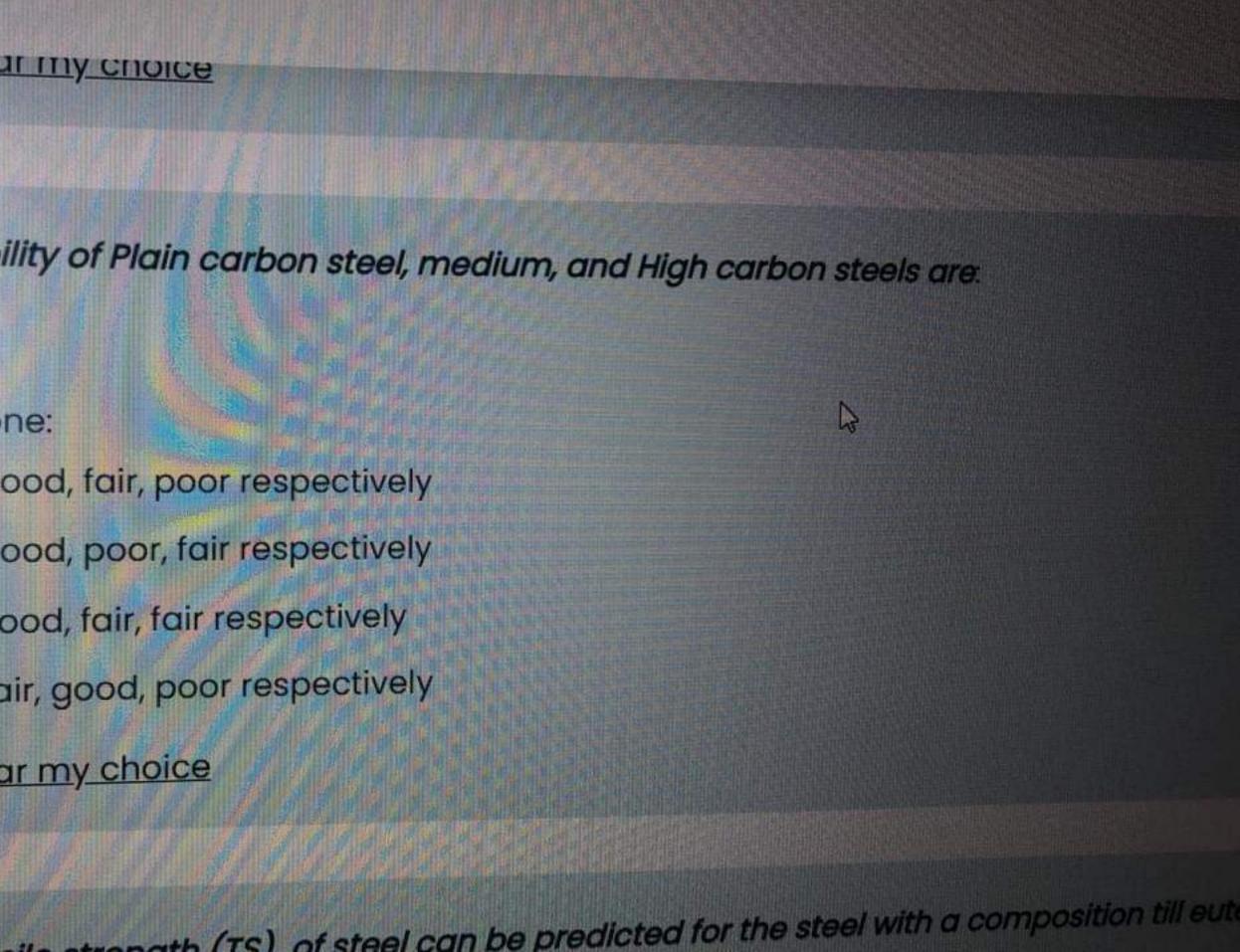
Flag juestion

## Weldability of Plain carbon steel, medium, and High carbon steels are.

### Select one:

- a. Good, fair, poor respectively
- b. Good, poor, fair respectively
- c. Good, fair, fair respectively
- O d. Fair, good, poor respectively

### Clear my choice



### 🔾 d. brine

### <u>Clear my choice</u>

Question 7 Not yet answered Marked out of 2.00

P Flag question The formation of the graphite into a ball form in ductile cast iron is accomplished by.

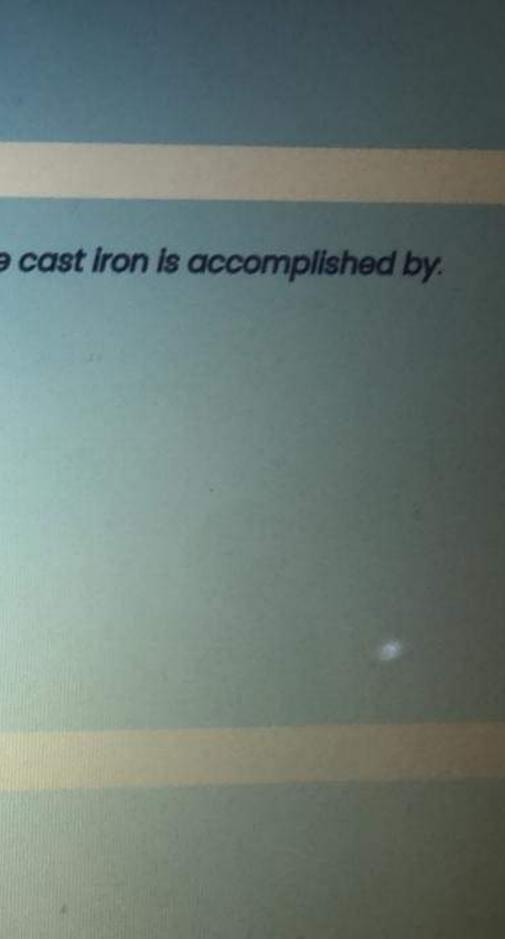
Select one:

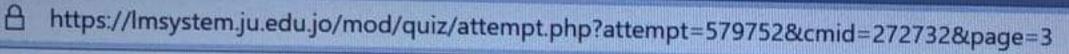
- a. Mg and Cerium
- O b. Mo and Cerium
- O c. Adding Mn and Cerium

Clear my choice

The hardenability is not affected by

Question 8





#### clear my choice

### Question 17

0

-

Not yet answered

Marked out of 2.00

P Flag question

### The fastest cooling rate is achieved when steel is quenched in

Select one:

- q brine
- 🔘 b. air
- 🔘 c. oil
- O d. water

#### Clear my choice

### Question 18

Not yet answered

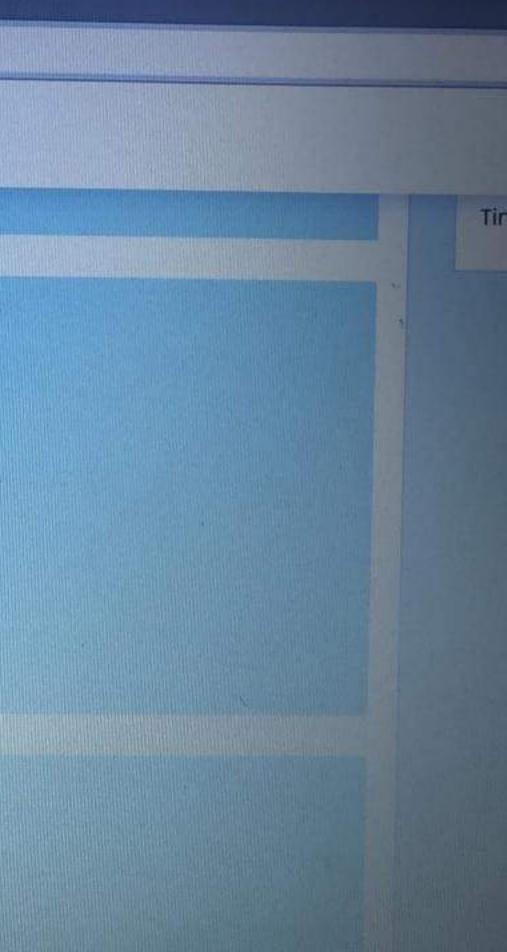
Marked out of 2.00

VI Flag

The recommended heat treatment process for the car body is:

Select one:

a normalizina + hardenina





#### The limitation of the phase diagram for heat treatment purposes is that 1.

### Select one:

- a. Austenite does not exist at room temperature
- O b. it is used only for plain carbon steel
- O c. it does not show the bainite
- O d. it does not show the effect of cooling rate
  - Clear my choice



Dendrite can be seen clearly in the microstructure of the castings if the alloy:

hor

### Clear my choice

### Question 7 Answer saved

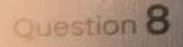
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- P Flag question

# The recommended heat treatment process for the car body is:

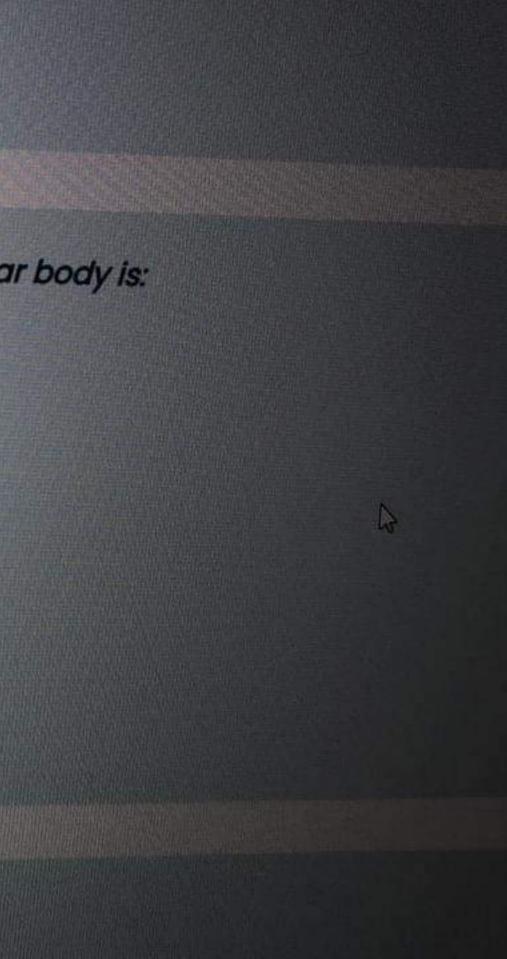
### Select one:

- a. annealing
- O b. normalizing
- O c. Hardening
- O d. normalizing + hardening

### <u>Clear my choice</u>



Austenite is:





### Clear my choice

### Austenite is:

### Select one:

- a. It is the mixture of ferrite and cementite
- b. It is very hard and brittle
- C. It is Ferrite and Cementite! It's just acicular
- It is a solid solution of iron and carbon

Clear my choice

The hardenability is not affected by

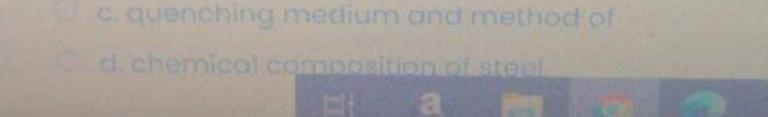
Select one:

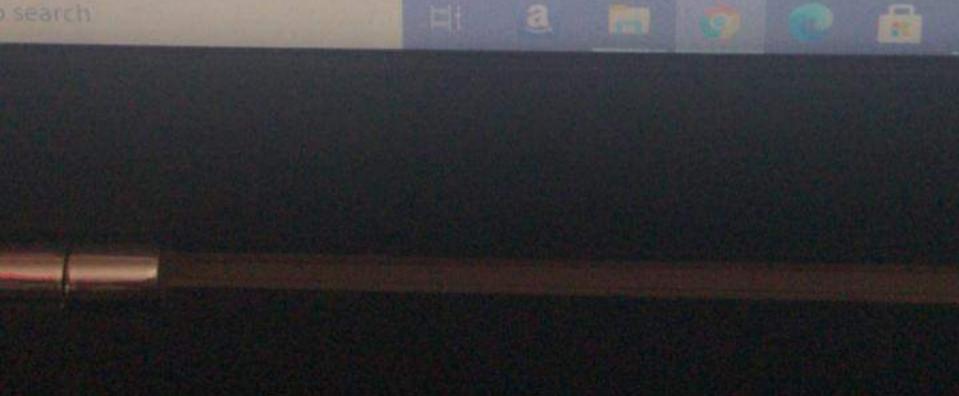
ed

of

a. air

b. critical cooling rate





Not yet answered	
Marked out of 2.00	
や Flag question	

## The limitation of the phase diagram for heat treatment purposes is that

#### Select one:

1.

- O a. it is used only for plain carbon steel
- b. it does not show the bainite
- c. it does not show the effect of cooling rate
- O d. Austenite does not exist at room temperature

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### Question 22

Not yet answered

Marked out of 2.00

Flag question The cooling rate for the precipitation heat treatment process of Al-copper alloys is.

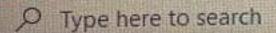
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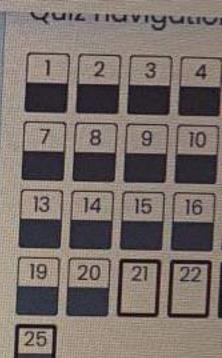
Select one:

O a. very fast

O b. slow

- O c. no matter
- O d. moderate





#### Finish attempt ....

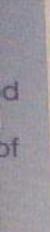
Time left 0:15:06

^ D 6



#### LETTELOROIOAL I ROCESSES

#### 16 August - 22 August



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## The recommended heat treatment process for the Drive half-shaft for a small car is:

### Select one:

- a. normalizing
- O b. normalizing + hardening
- C. Annealing
- O d. hardening
  - Clear my choice

The Ms temperature on the TTT diagram is a function of carbon content as follows.

### Final exam metallurgical proces

# N. Why bainite does not form during continuous cooling in plain carbon steel? A

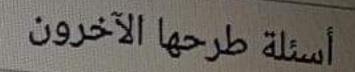
# Bainite forms by the decomposition of austenite at a temperature which is above MS but below that at which fine pearlite forms. All bainite forms below the T0 temperature.

"hat

lecture6 < www.phase-trans.msm.cam.ac.uk Bainite in Steels - Phase Transformations

What is TTT diagram for eutectoid steel?

### amuels



How is bainite formed?

البحث عن: <u>How is bainite formed?</u>

VALL 1 L L L COO

Question 4

Not yet answered

Marked out of 2.00

Flag question

The tensile strength (TS) of steel can be predicted for the steel with a composition till eutectoid composition by the following formula:

Select one:

- (a)  $TS = 700 \times % carbon + 350$
- b. TS = 750×%carbon+350
- O c. TS = 750×%carbon+300
- O d. TS = 700 ×%carbon+300

### Clear my choice

0

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3	NOT YEE OPENWORKS	the second s		
	Maxing out of			
2	2.00 T Plag	Select one:		
1	quinistion	O a. Weld metal, and Knife effect in Base metal		
		O b. Weld metal, HAZ, and Knife effect in Base metal.		
ð		C. Weld metal, HAZ, and Base metal		
5		O d. HAZ and Knife effect in Base metal		
<b>^</b>		Clear my choice		
Ē				
2	Question 12			
	NOCY85 Grisswersed	The recommended heat treatment process for the Drive h	alf-shaft for a small on te-	
1	Monked put of			
-	2.00 T Prog	Select one	4	
-	Question.	* a hardening		
		b. normalizing + hordening		
		O c. Annealing		
		C d. normatizing		
		Clear.my.choice		
	Quespon 13	The back		
Ð	Not yet Onteered	The body centered tetragonal crystal structure is		
R	Type here to search			
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transformation ends line, then quenching

Output description of the second s

tion **14** er saved ed out of

g ion The main distinct welding zones are.

### Select one:

O a. Weld metal, and Knife effect in Base metal

b. HAZ and Knife effect in Base metal

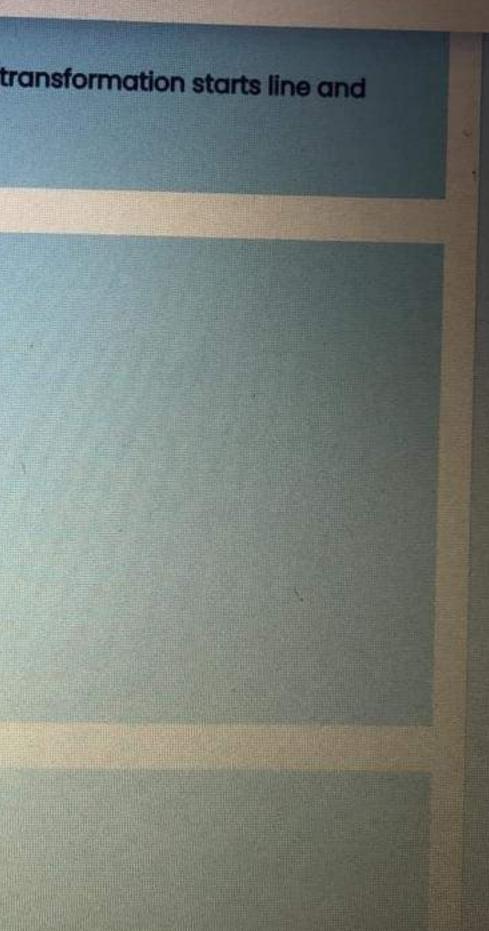
C. Weld metal, HAZ, and Base metal

d. Weld metal, HAZ, and Knife effect in Base metal
 <u>Clear my choice</u>

t t red d out of

The hardenability is not affected by

Select one:



# **INTERCED AL PROCESSES**

Home

My courses

METALLURGICAL PROCESSES

Final exam Metallurgy

Final e

### Question 1

Not yet answered

Marked out of 2.00

P Flag question

## The main methods to correct the microstructure of castings are:

### Select one:

- a. annealing
- b. hardening
- c. normalizing
- Od. A and C

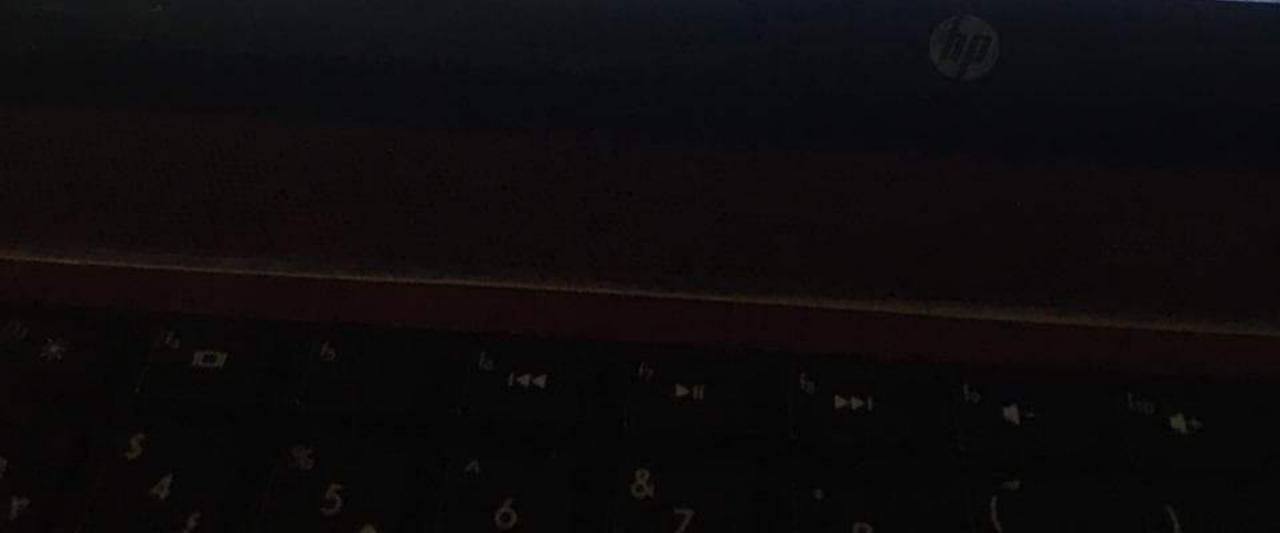
Question 2 Not yet answered Marked out of 3.00

## Type of sand, which is preferred by most foundries:

2

Select one:

- a. synthetic
- b. mix of them



# <u>Clear my choice</u>

- d. Hardening
- O c. annealing
- O b. normalizing
- Select one: a. normalizing + hardening
- The recommended heat treatment process for the car body is:
- 25 saved
- out of
- ion



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Flag estion Dendrite can be seen clearly in the microstructure of the castings if the alloy:

Select one:

- O a. is radio active
- b. has impurity atoms
- c. is pure 0
- O d. is magnetized
  - Clear my choice

estion 5 swer saved irked out of

The recommended heat treatment process for the car body is:

## <u>Clear my choice</u>

### Annealing temperature is:

Select one:

- a. greater than normalizing temperature
- b. same as normalizing temperature
- c. sometimes greater and sometimes lesser that
- d. less than normalizing temperature

Clear my choice

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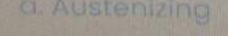
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TTI .

Which one of the following is not equilibrium heat trea

Select one:



- b. annealing
- c. precipitation
  - d. normalizing
  - Clear my choice

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- d none of the choices
  - **Cloar my choice**

Spherodite microstructure in eutectoid plain carbon steel can be formed by using luothermail transformation process if

#### Select one:

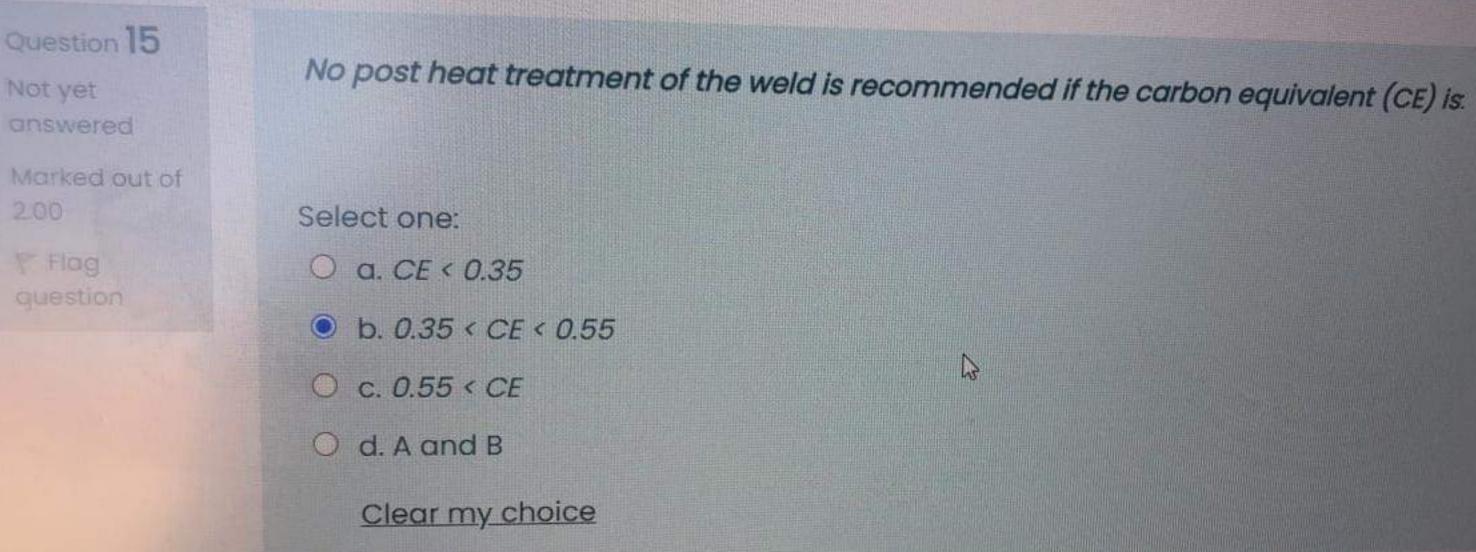
- a cooled to above the critical temperature or lower to it and left for 10<sup>4</sup> seconds
- b cooled to lower the critical temperature only and left for 10<sup>4</sup> seconds
- c cooled to the critical temperature only and left for 10<sup>4</sup> seconds.
- d cooled to above the critical temperature only and left for 10<sup>4</sup> seconds

Type of sand, which is preferred by most foundries:

CICRED Transland

is needed to harden it

O d. it is impossible to harden it



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### Clear my choice

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ag stion Which one of the following is not equilibrium heat treatment

Select one:

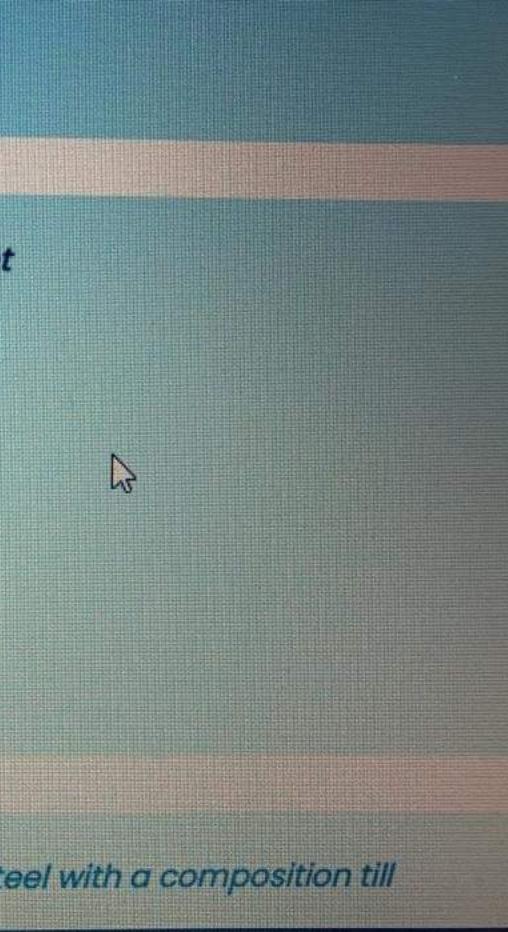
O a. annealing

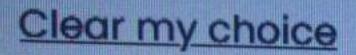
- O b. precipitation
- O c. normalizing
- O d. Austenizing



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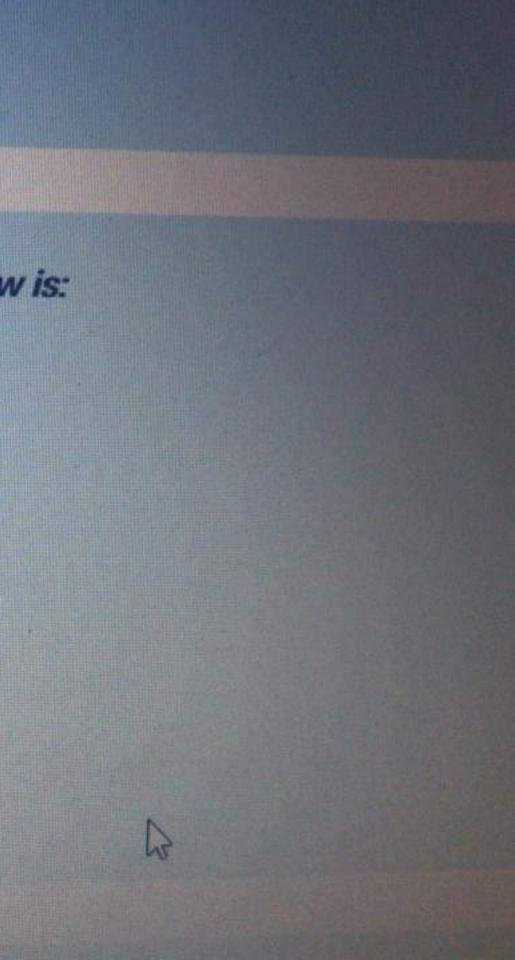
The tensile strength (TS) of steel can be predicted for the steel with a composition till eutectoid composition by the following formula:





# The recommended heat treatment process for the hacksaw is:

- O a. annealing
- O b. Normalizing
- c. Normalizing+harening
- O d. hHardening
  - Clear my choice



g TTT diagram	🗴 📄 combinepdf.pdf 🛛 🗙 🏫 Final exam metallurg.cal proces 🛪 G. Dendvite can be seen clearly in 1 🗴 🕂
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Question 6	The slowest cooling rate is obtained at a second state
Not yet	The slowest cooling rate is obtained when steel is quenched in
Marked out of 2:00	
E Rog	Select one:
question	O b. fused salt
	O c. brine
	O d. mixture of oil and water
	Clear.my.choice
	- MARCHARLAND STREET
Question 7	
Not yet	Anneoling temperature is:
Marked out of	4
2.00	Select one
t" hog question	O a same as normalizing temperature
Printer and	b. greater than normalizing temperature
	* c. less than normalizing temperature
	d. sometimes greater and sometimes lesser than normalizing temperature
	Clear my choice

FD FO FO FO 17 FO 12 FO 0 W = E = R = T y - = = = = + 1 · U · 1 + 4 = 4 Q 0 P -S DIFIGY HI 7 K - X° C (V) BY NIM

### uestion 4

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- P Flag Juestion

## Question 5 Not yet answered

- Marted out of 3.00
- 7 Flag question

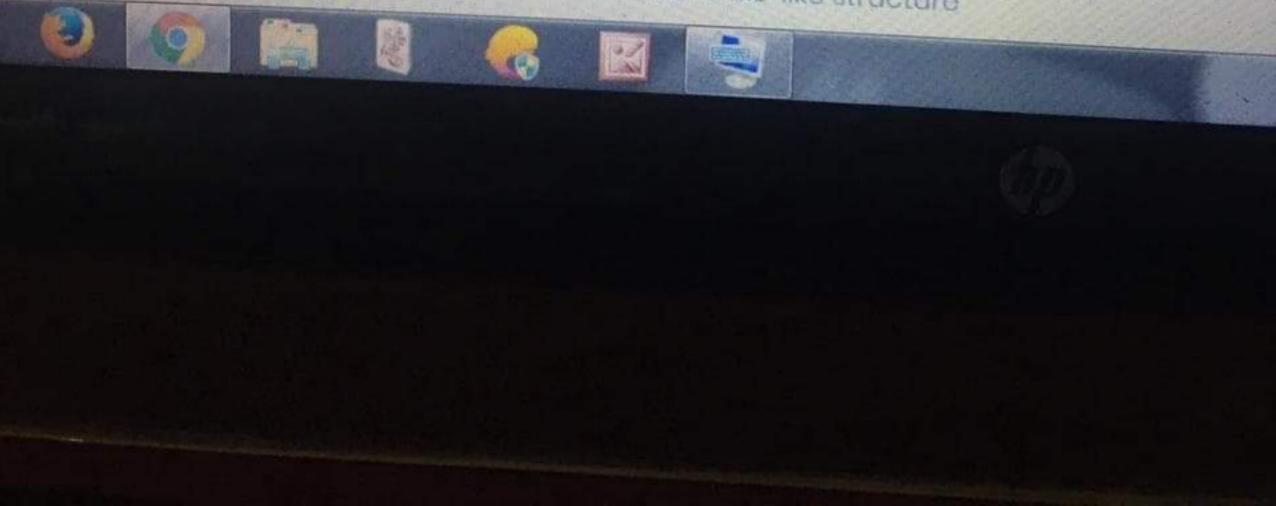
### Flush quenching is when:

#### Select one:

- a. the liquid is poured onto the surface and into every cavity of the to ensure
  - uniform cooling
- b. the liquid is sprayed onto the surface and into every cavity of the to ensure
  - uniform cooling
- c. none of the choices
- O d. you cool the metal in a tank of liquid

# 6. The overaging mechanism in Al-Cu alloys is.

- a. A result of Alpha phase formation
- b. A result of the perfection in the lattice
- c. A result of the formation of a Ms-like structure



#### <u>Siddi my choice</u>

Question 20 Answer saved Marked out of 2.00 P Flag question

## Bainite is:

Select one:

- a. It is Ferrite and Cementite! It's just acicular
- b. It is a solid solution of iron and carbon
- c. It is very hard and brittle
- O d. It is the mixture of ferrite and cementite

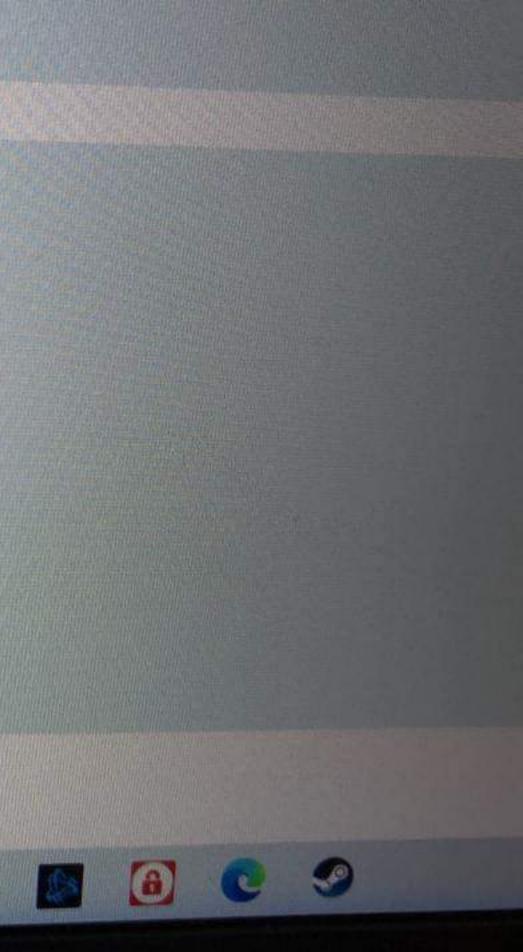
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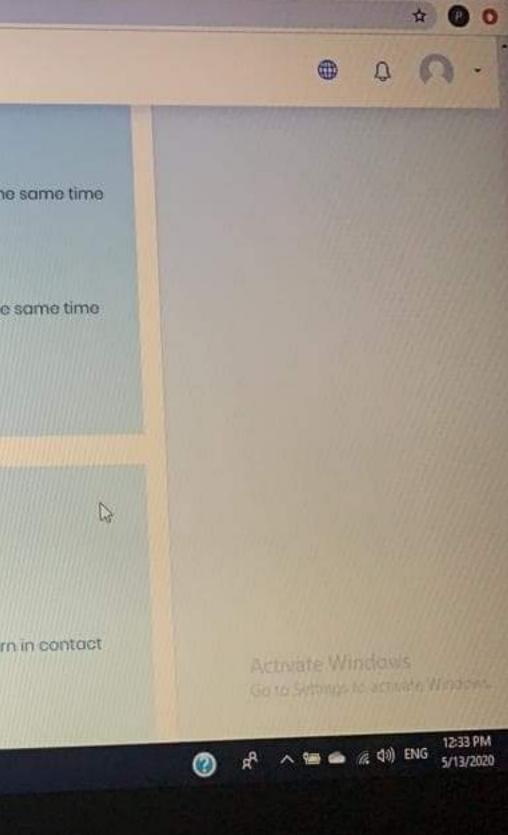
#### Clear my choice

O Type here to search

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☆	Question 9 Not yet	Flush quenching is when:
	Answered Marked out of	Select one: a. the liquid is sprayed onto the surface and into every cavity of the part at the
â	3.00 Flag question	to ensure uniform cooling
~	queater	b. none of the choices
2		c. the liquid is poured onto the surface and into every cavity of the part at the
i		to ensure uniform cooling
91		d. you cool the metal in a tank of liquid
n		
	Question 10 Not yet answered	The thickness of the shell in shell molding casting process is determined by:
	Marked out of 3.00	Select one:
	۴ Flag	<ul> <li>a. the time that the pattern in contact with the mold</li> </ul>
	question	<ul> <li>b. the heating up time that is needed to raise the temperature of the pattern with the mold</li> </ul>
205		O c. A and B
•		Ø d. the mounted pattern should be heated to 379 °C



uestion **4** nswer saved larked out of .00

" Flag uestion

# The temperature of the formation of martensite in the CCT:

#### Select one:

- a. is the same as for TTT diagram.
- b. is shifted to the right
- C. is less than that for TTT diagram
- O d. is more than that for TTT diagram
  - Clear my choice

Question 5

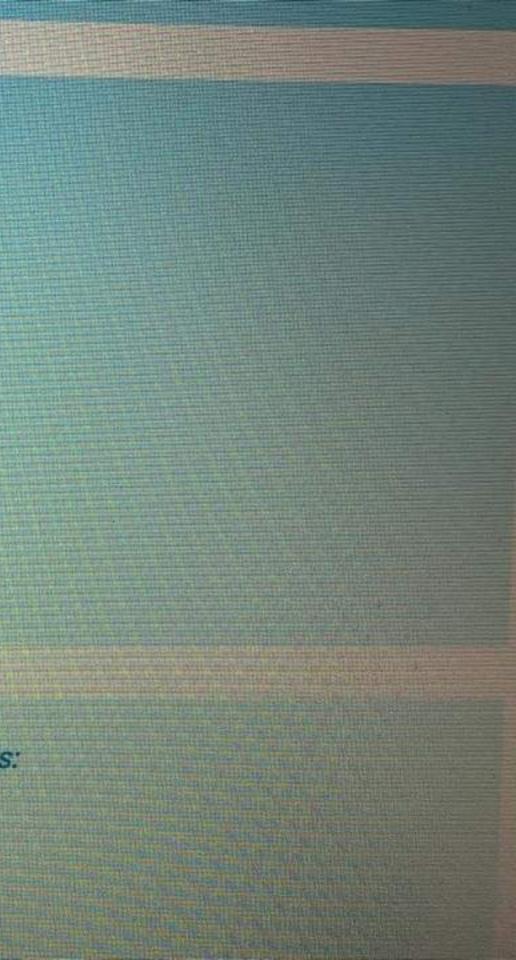
Answer saved

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K Flag

The recommended heat treatment process for the car body is:

3



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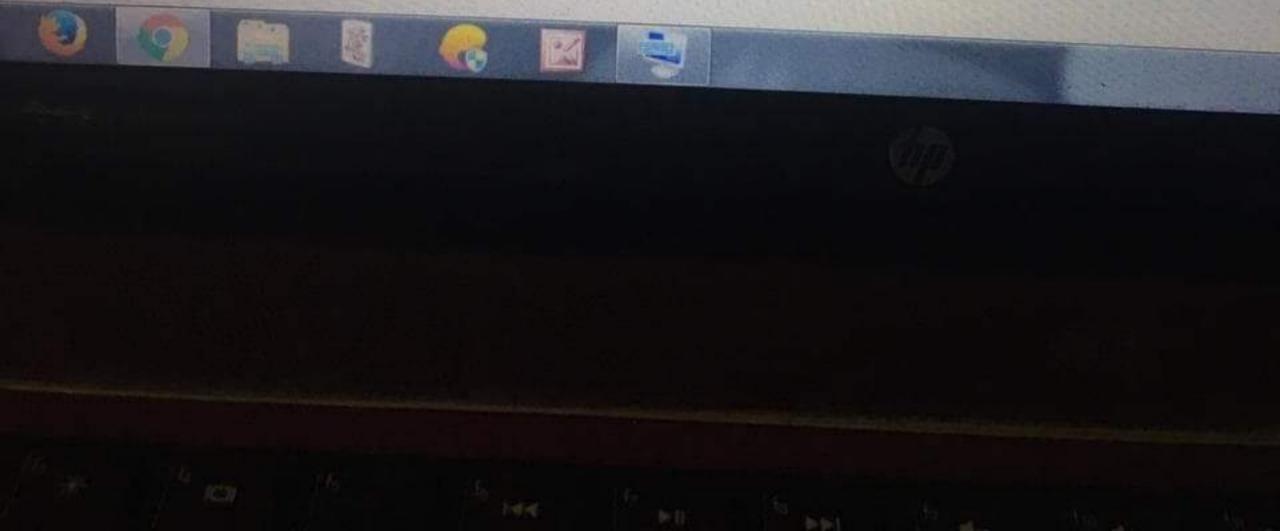
# If the nose of the TTT diagram is for an alloy at the zero time line

### Select one:

- a. it is impossible to harden it
- b. Special furnace is needed to harden it
- C. It would be easy to harden it
- d. It is difficult to harden it

The bonding energy for ionic, metallic, secondary types can be classified respectiv follows:

- a. variable, variable, small
- b. variable, large, small
- C. small, large, variable
- d. large, variable, small



#### stion 2

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### estion 3 yet swered rked out of

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# Type of sand, which is preferred by most foundries:

#### Select one:

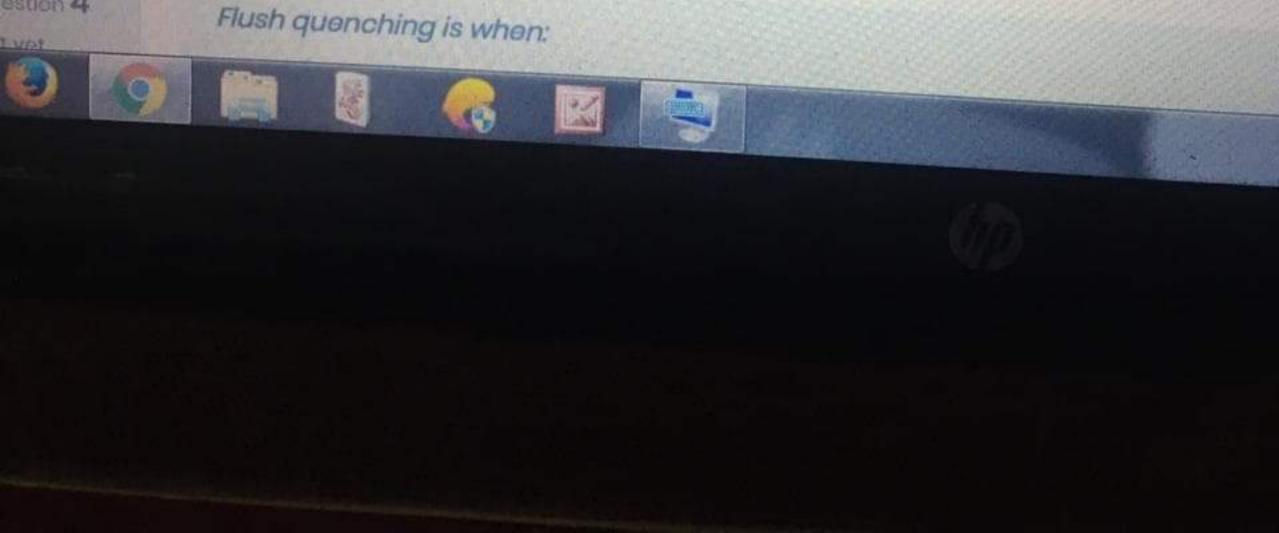
- a. synthetic
- b. mix of them 0
- c. none of the choices
- d. Natural 0

# The ascending order of strength based on microstructure is.

#### Select one:

- O a. fine pearlite, bainite, T martensite
- O b. Spherodite, Tmartensite, martensite
- C. Martensite, spherodite, fine pearlite
  - d. T martensite, bainite, fine poarlite

#### estion 4

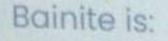


# LURGICAL PROCESSES

My courses

# METALLURGICAL PROCESSES

16 August -



#### Select one:

- a. It is a solid solution of iron and carbon
- b. It is the mixture of ferrite and cementite
- c. It is Ferrite and Cementite! It's just acicular
- O d. It is very hard and brittle

Clear my choice

Which one of the following is not correct

- G. Martensite has a BCC structure
  - b. The martensite which is formed during guenching is too.

# 23 圖 â $\odot$ 1

B

Question **5** Not yet answered Marked out of 3.00 P Flag question

#### A result of the formation of a Ms-like structure

Select one:

- a. Mg and Cerium
- 🔘 b. Mo and Cerium
  - c. Adding Mn and Cerium
- d. Mn and Mo

#### <u>Clear my choice</u>

A News forum

+

🔘 c. oil

O d. water

Clear my choice

#### Question 18

Not yet answered

Marked out of 2.00

P Flag question The recommended heat treatment process for the car body is:

#### Select one:

- a. normalizing + hardening
- O b. annealing
- C. normalizing
- O d. Hardening

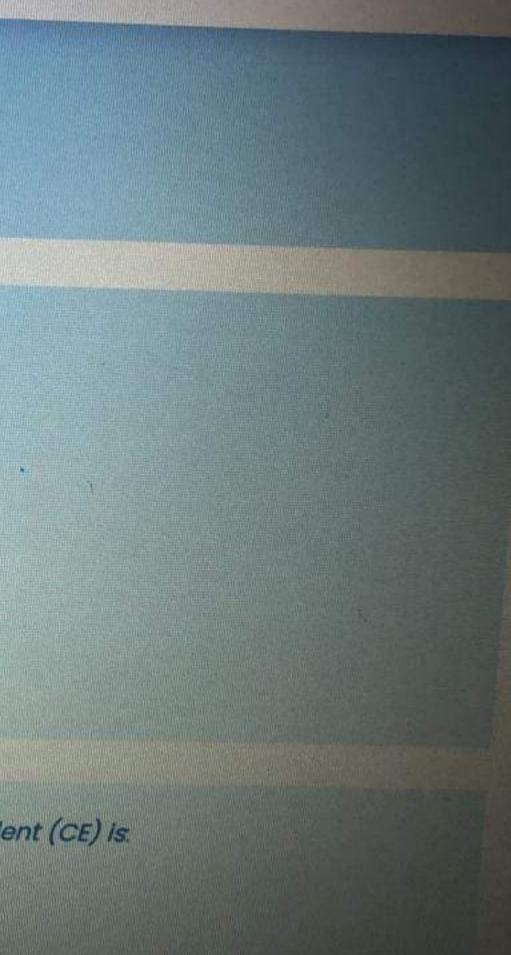
#### Question 19

Not yet answered

Marked out of 2.00

No post heat treatment of the weld is recommended if the carbon equivalent (CE) is.

23



#### Clear my choice

Question 20 Answer saved Marked out of 2.00 P Flag question

Which one of the following is not correct

Select one:

- a. Martensite has a BCC structure
- b. Austenite has FCC structure
- O c. The martensite which is formed during quenching is too brittle
- O d. Martensite is a solid solution of carbon in BCC iron

Clear my choice

Previous page

#### Question 5

Not yet answered

Marked out of 3.00

Flag question

## Type of sand, which is preferred by most foundries:

Select one:

- a. none of the choices
- b. Natural
- C. synthetic
- d. mix of them

Jump to\_

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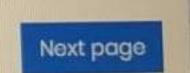


## Stay in touch Ô

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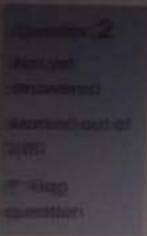
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# Activate Window







Bainitic microstructure in eutectold plain carbon steel can be formed by using continuous cooling diagram If

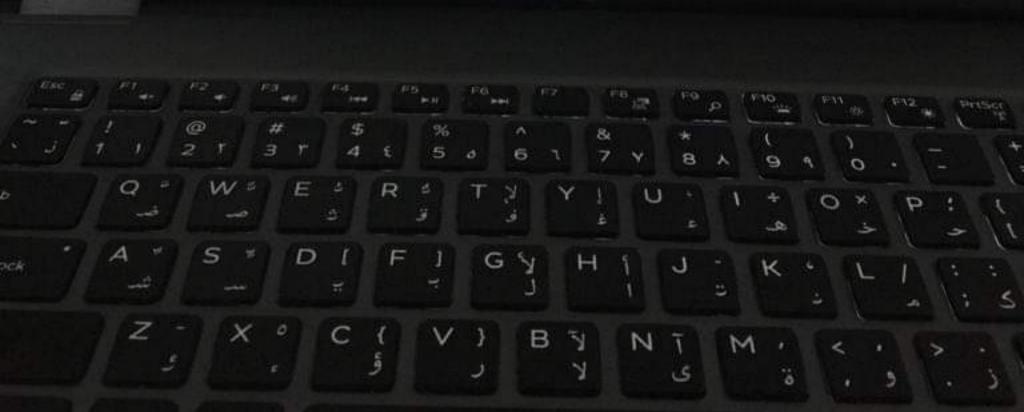
Select one:

- a the cooling rate goes after the critical point
- b. the cooling rate passes through the critical point
- c. the cooling rate goes before the critical point
- d none of the choices

Spuestion® Monaget Monaget 100 Spherodite microstructure in eutectoid plain carbon steel can be formed by using isothermal transformation process if

- a cooled to above the critical temperature or lower to it and left for 10<sup>4</sup> seconds
- b. cooled to lower the critical temperature only and left for 10<sup>4</sup> seconds
- c cooled to the critical temperature only and left for 10<sup>4</sup> seconds
  - d cooled to above the critical temperature only and left for 10<sup>4</sup> seconds

on 3 tred	The fastest cooling rate is achieved when steel is quenched in	
d out of	Select one:	
9	O a. air	Concerns of the second s
ion	O b. water	
	O c.oll	
	C. brine	
	Clear my choice	
		0
estion 4 Cyst Swered	Dendrite can be seen clearly in the microstructure of the castings if the alloy	
to tuo barn	Select one:	
Flug	O a. is radio active	
Pestion	O b. has impurity atoms	
	O c. is pure	
	O d is magnetized	



#### Select one:

- O a. A result of the perfection in the lattice
- b. A result of the distortion in the lattice
- O c. A result of the formation of a Ms-like structure
- O d. A result of Alpha phase formation

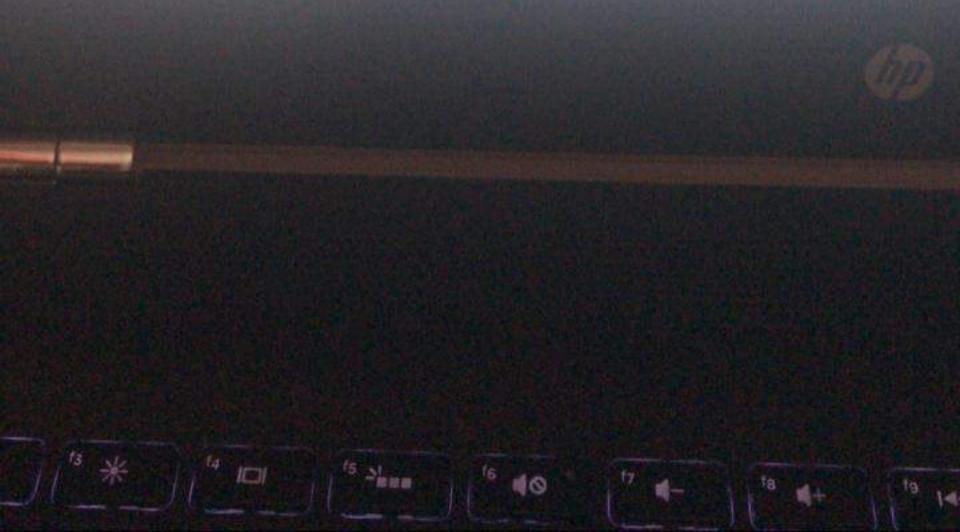
Clear my choice

#### The recommended heat treatment process for the car body is:

#### Select one:

- a. normalizing + hardening
- b. normalizing
- O c. annealing
- d. Hardening
- Clear my choice

s page



14 aved out of

The main distinct welding zones are.

Select one:

- O a. Weld metal, and Knife effect in Base metal
- b. HAZ and Knife effect in Base metal
- C. Weld metal, HAZ, and Base metal
- O d. Weld metal, HAZ, and Knife effect in Base metal

Clear my choice

#### 62

n **15** saved out of

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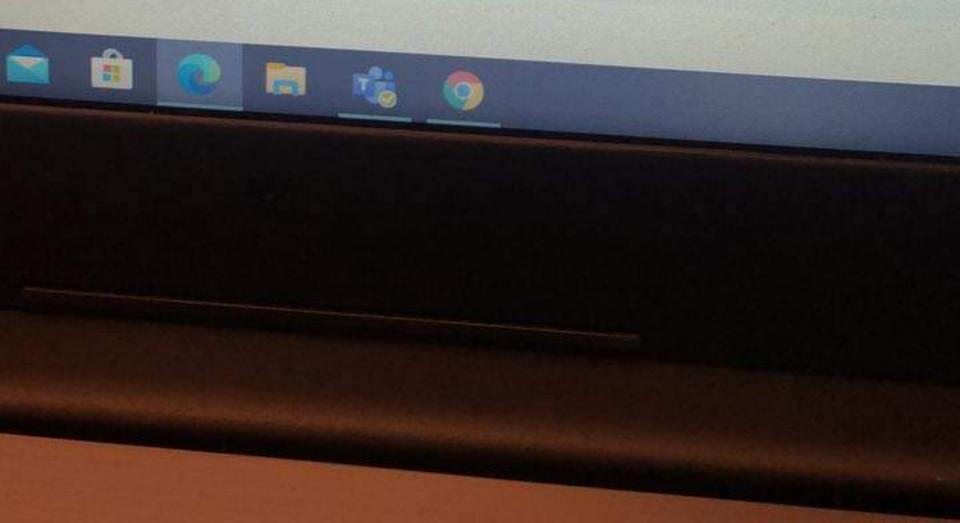
The hardenability is not affected by

Select one:

- a. quenching medium and method of
- b. air
- c. critical cooling rate

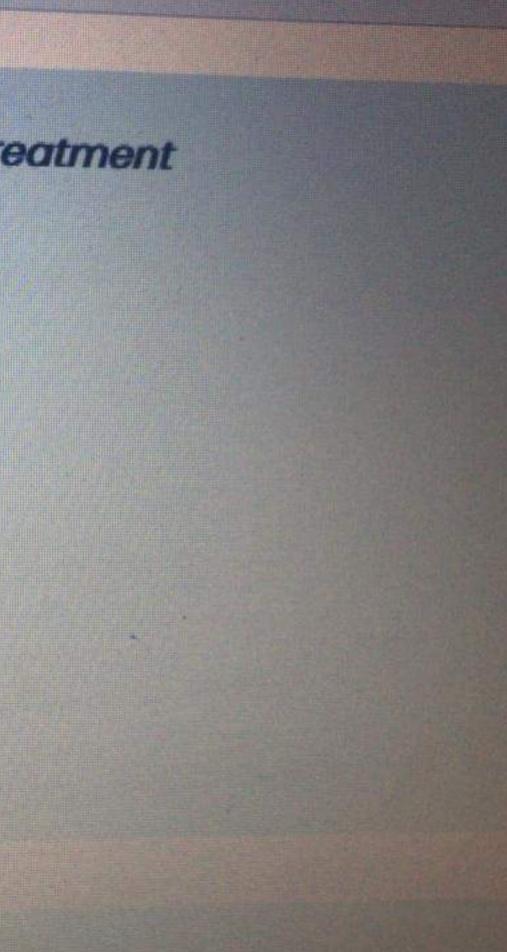
d. chemical composition of steel

Clear my choice



# Which one of the following is not equilibrium heat treatment

- Select one: O a. annealing
- O b. precipitation
- c. Austenizing
- O d. normalizing
  - <u>Clear my choice</u>



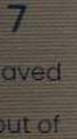
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## Dendrite can be seen clearly in the microstructure of the castings if the alloy:

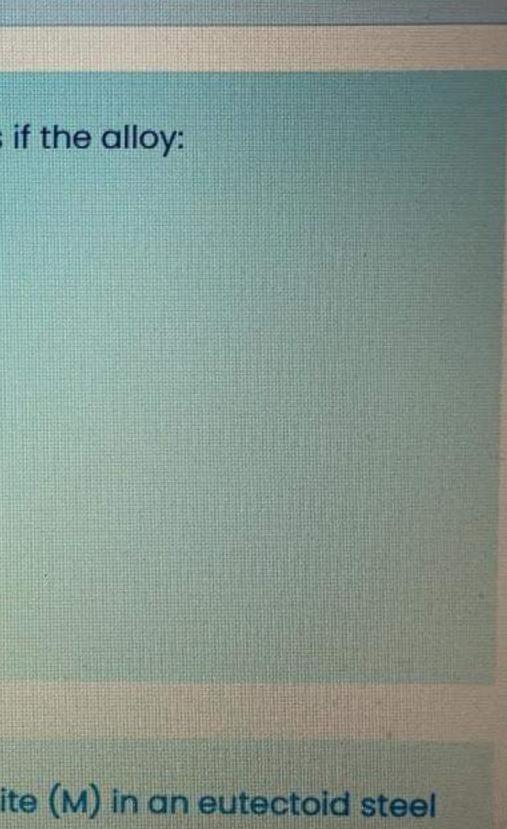
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Select one:
a. is magnetized
b. is radio active
c. has impurity atoms
d. is pure

<u>Clear my choice</u>



A method of getting a mixture of Pearlite (P), Bainite (B) & Martensite (M) in an eutectoid steel is:

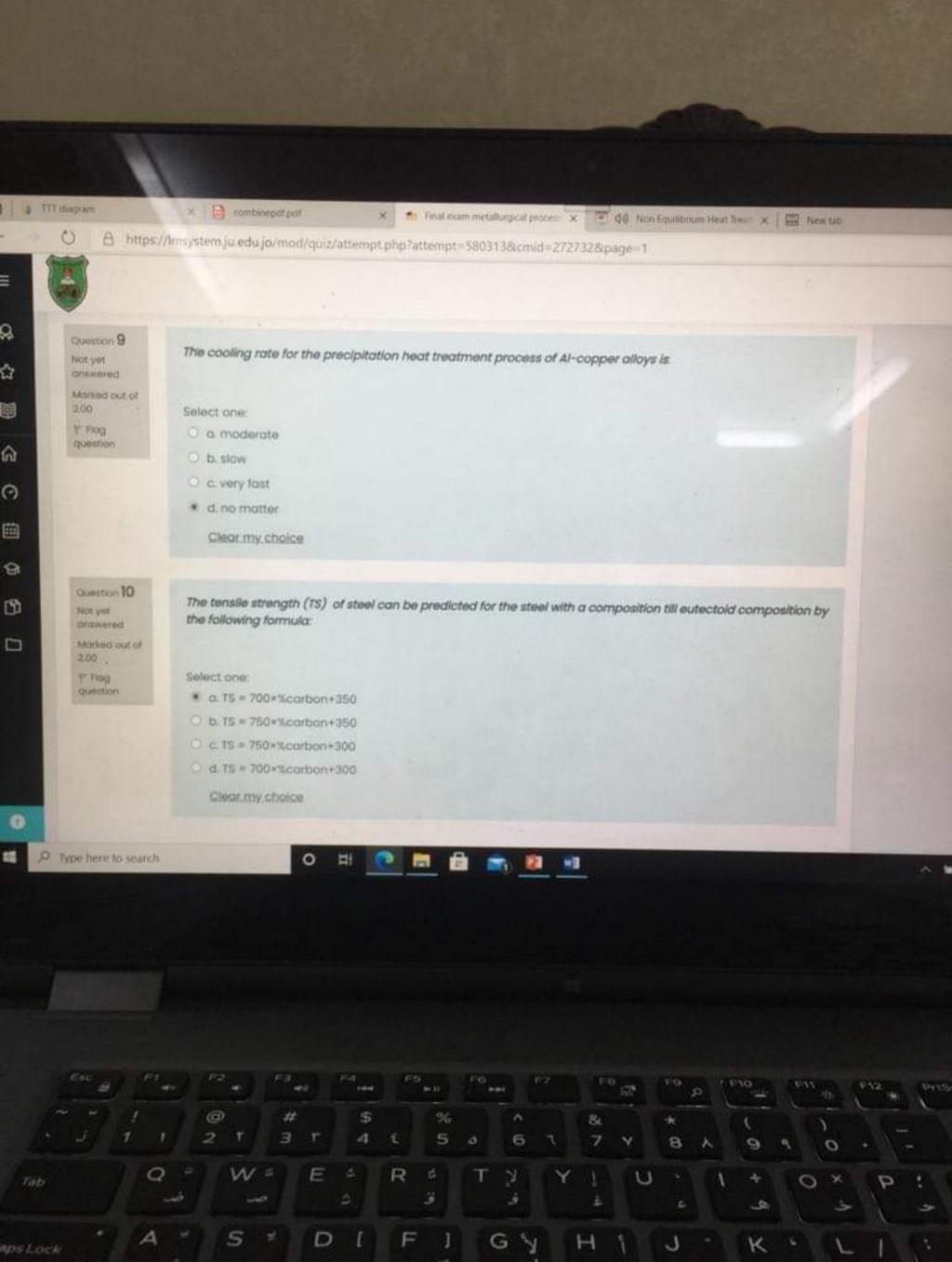


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22		Time fort 0:2
Question 22 Not yet	A method of getting a mixture of Pearlite (P), Bainite (B) & Martensite (M) in an eutectoid steel is:	
Monited out of		
2.00	Select one:	
E Flag question	a. Cooling to a temperature above the border line of P and B, crossing the transformation starts line and soaking to a certain time, cooling it to below the border line.	
	soaking to a certain time, cooling it to below the border line, soaking to a certain time but not to cross the transformation ends line, then quenching	
	a second s	
	<ul> <li>b. Cooling to a temperature above the border line of P and B, crossing the transformation ends line and soaking to a certain time, cooling it to below the border line, soaking to a certain, then quenching</li> </ul>	
	soaking to a certain time, then quenching	
	O d. Cooling to a temperature below the border line of P and B, crossing the transformation starts line and soaking to a certain time, soaking to a certain time but not cross the transformation ends line, then quenching	
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Ouestion 23		
NUL yet Onterend	The temperature of the formation of martensite in the CCT.	
Molked out st. 2.00		
T flog	Select one:  C a is more than that for TTT diagram	
question	O to is lets than that for TTT diamon	
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<ul> <li>Type here to search</li> </ul>	O # C = 6 💼 1	A 10 4
		and the second second

The  $Q = W = E = R = TY Y | U = 1 + Q \times P = 1 + Q \times P$ 

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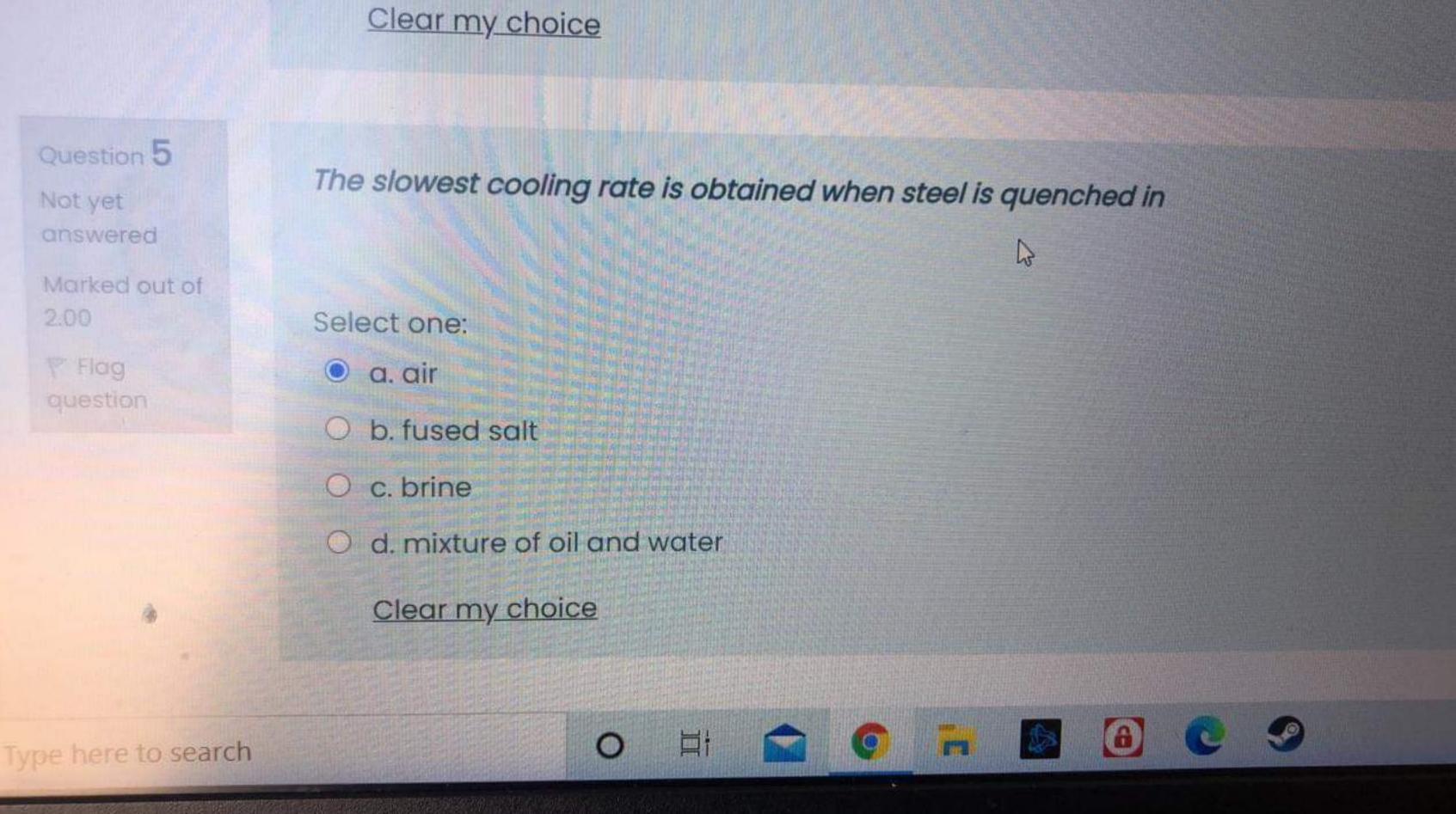
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) & https//	/Imsystem ju edu jo/mod/quiz/attempt.php?attempt=5893138cmid=2727328cpage=4	
	<ul> <li>b. Cooling to a temperature above the border line of P and B, crossing the transformation ends line and toaking to a certain time, cooling it to below the border line, soaking to a certain, then quenching</li> </ul>	
	O c. Cooling to a temperature below the border line of P and B, crossing the transformation starts line and soaking to a certain time, then quenching	
	O d. Cooling to a temperature below the border line of P and B, crossing the transformation starts line and soaking to a certain time, soaking to a certain time but not cross the transformation ends line, then quenching	
	Clear.my.choice	
Question 23 Not yet Characted Monied out of	The temperature of the formation of martensite in the CCT.	
2.00	Select one:	
diversion	O a is more than thia for TTT diagram	
	O b is less than that for TTT diagram	
	<ul> <li>c. is shifted to the right</li> </ul>	
	<ul> <li>d. is the same as for TTT diagram</li> </ul>	
	Clear.my.choice	
Question 24 Not yet answered	No post heat treatment of the weld is recommended if the carbon equivalent (CE) is	
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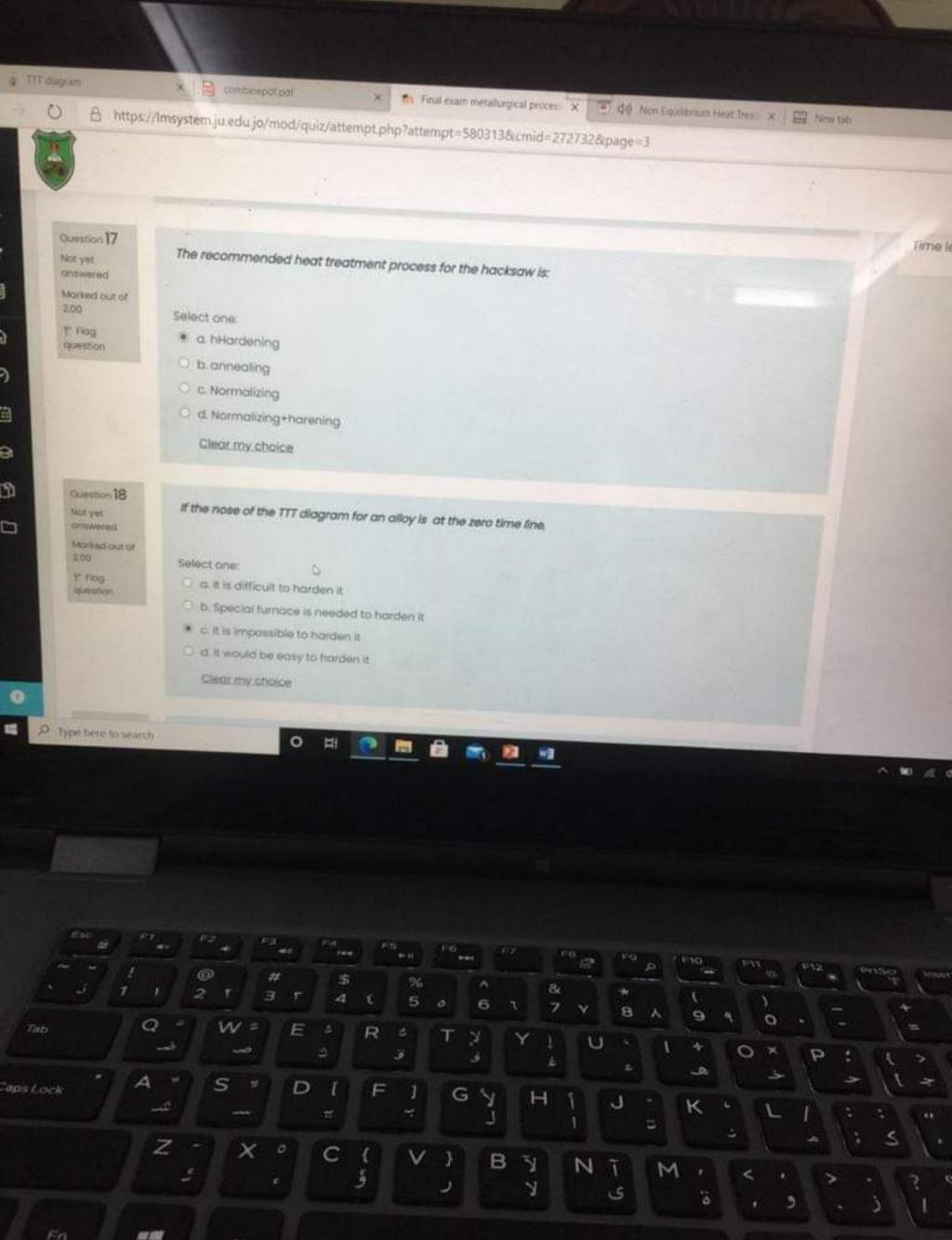
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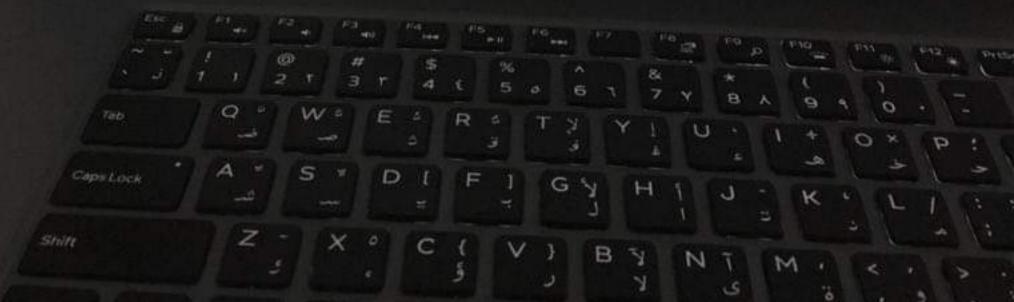
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2.00	Select one:
T Flag	* a hardening
Sharren	O b. normalizing + hardening
	O c. Annealing
	O d. normalizing
	Clear my choice
Olivestion 13	
Not-yet	The body centered tetragonal crystal structure is:
Marked out of	
2.00	Select one: D
t, yođ drastjou	* a when a=b#c and has an atom in the center
	b when a=b=c and has an atom in the center and another on the surface
	C. when a=b=c and has an atom in the center.
	O d when a=b=c and has an atom on the surface
	Clearmy.choice
Question 14	
NUT YET	Which one of the following is not correct
Deserved	
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#### e My courses METALLURGICAL PROCESSES 16 August - 22 August

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The Ms temperature on the TTT diagram is a function of carbon content as follows.

Select one:

O a. There is no change in Ms temperature

O b. There is a slight change in Ms temperature

O c. The higher the %C, the higher the Ms temperature

Output is the second second

Clear my choice

2 The overaging mechanism in Al-Cu alloys is:

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### Final exam metallurgical proc

C. is magnetized

O d. is radio active

Clear my choice

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uestion 9 nswer saved arked out of The limitation of the phase diagram for heat treatment purposes is that.

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#### Select one:

1.

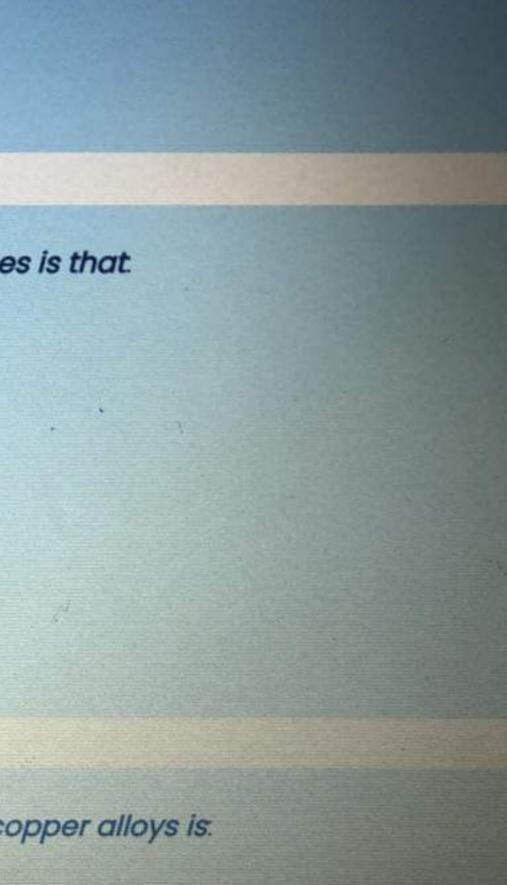
• a. it does not show the effect of cooling rate

O b. Austenite does not exist at room temperature

O c. it does not show the bainite

O d. it is used only for plain carbon steel

The cooling rate for the precipitation heat treatment process of Al-copper alloys is.



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ag stion Which one of the following is not equilibrium heat treatment

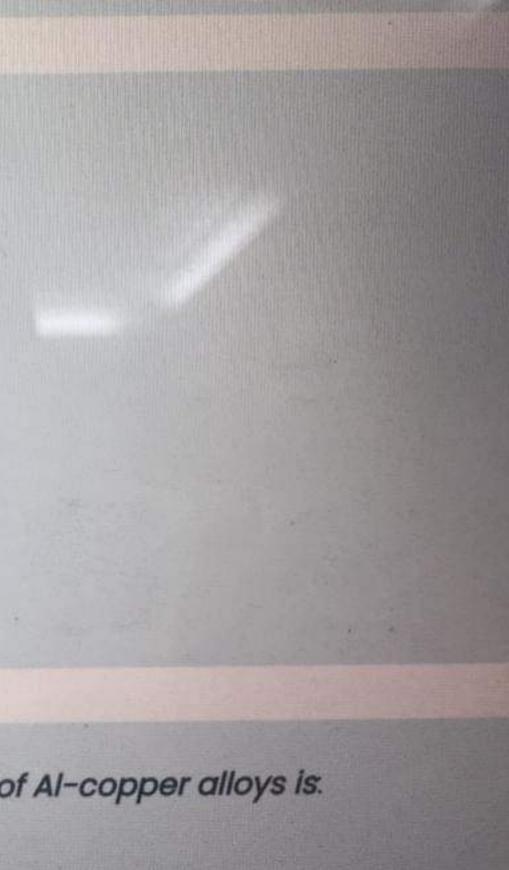
Select one:

- a. precipitation
- O b. normalizing
- O c. Austenizing
- O d. annealing

Clear my choice

estion 9 wer saved rked out of The cooling rate for the precipitation heat treatment process of Al-copper alloys is.

Salact one



# METALLURGICAL PROCESSES

Home	My courses	METALLURGICAL PROCESSES	16 August - 22 August	Final exam metallu
Question 11 Not yet	The ove	raging mechanism in Al-Cu allo	ys is	
Answered Marked out of 2.00	Select o	ne:		
F Flag question		result of the perfection in the lat result of the distortion in the latt		
		result of Alpha phase formation result of the formation of a Ms-li	ke structure	
	Cle	ar my choice		
Question 12 Answer saved Marked out o	the folio	sile strength (TS) of steel can be owing formula:	predicted for the steel with	a composition till eute

Select one:

 $\Omega = 750 \times \% carbon + 350$ 

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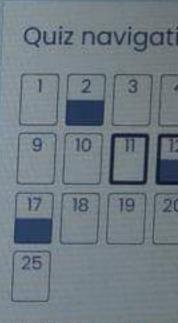
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#### Joine

#### My courses

#### METALLURGICAL PROCESSES

16 August - 22 August

Final exam metallurgical processes-summe

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Marked out of 001

Flag question The recommended heat treatment process for the Drive half-shaft for a small car is:

Select one:

a. normalizing

b. normalizing + hardening

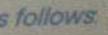
- c. Annealing
- O d. hardening

Clear my choice

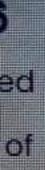
Question 17 Answer soved Marked out of question.

The Ms temperature on the TTT diagram is a function of carbon content as follows.

Select one: O a. There is no change in Ms temperature I winter the Ms temperature



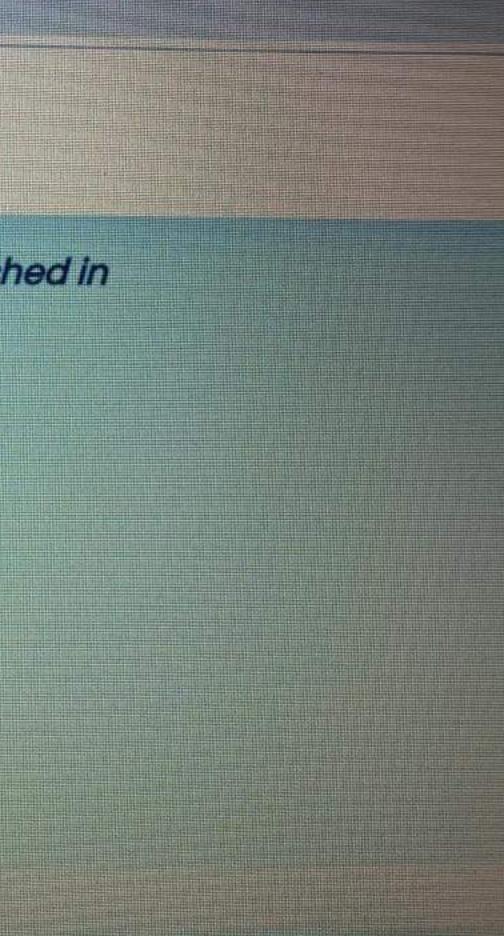
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The fastest cooling rate is achieved when steel is quenched in

Select one: a. brine b. oil c. air d. water

<u>Clear my choice</u>



## O d. moderate

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# Which one of the following is not correct

#### Select one:

- a. Martensite has a BCC structure
- b. Austenite has FCC structure
- C. The martensite which is formed during quenching is too brittle
- O d. Martensite is a solid solution of carbon in BCC iron
  - Clear my choice



er saved



