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# Galvanizing Engineer Job Interview Preparation Guide.

#### Question #1

Tell us why Is The Soldering Iron Bit Made Of Copper And Not Of Steel?

#### Anewor-

Because copper is good conductor of heat and quickly transfer its heat to the metal at the joint than the steel.

Read More Answers.

#### Question # 2

What is normalising?

#### Answer:-

Normalising is a process to make the steel part to its normal stage.

The main purposes are:

- \* To reduce grain size of steel.
- \* To achieve desired mechanical properties.
- \* To remove internal stresses caused by working.

Read More Answers.

#### Question # 3

Explain me what Is Meant By Lower And Higher Critical Points?

#### Answer:-

While heating a steel part, the temperature raises and it changes the structure of steel part .The temperature point at which the change starts is called lower critical point and the temperature at which the change ends is called higher critical point.

Read More Answers.

#### Question # 4

Tell me how Is Steel Classified?

#### Answer:-

According to carbon percentage

- \* Low carbon steel : Less than 0.25% carbon
- \* Medium carbon steel: 0.25% Â-0.7% carbon
- \* High carbon steel: 0.7% Â-1.5% carbon

According to percentage of alloying elements

- \* Low alloy steel: Alloying element less than 8%
- \* High alloy steel: Alloying element more than 8%

Read More Answers.

## Question # 5

Tell me The Following Properties Of Metal:

- (a) Fusibility
- (b) Stiffness
- (c) Ductility

#### Answer:-

Fusibility: It is the property of metal due to which a metal becomes fluid when it is heated.

Stiffness: It is the property of metal due to which a metal is capable of resisting deflection due to an externally applied load.

Ductility: It is the property of metal due to which a metal can be drawn into the form of wires without rupture.

Read More Answers.

#### Question # 6

Explain me what is the Toughness of metal?



#### Answer:-

Toughness is the property of metal due to which without fracture a metal is able to withstand bending or torsion. Mild steel and wrought iron are tough metals.

#### Question #7

Tell me what is the difference between Wrought iron, Cast iron and Pig iron?

Wrought iron contains less than 0.1% carbon and this is a product of puddling furnace. Cast iron is produced from cupola furnace. It contains 3Â-3.5% carbon in combined or free state. Pig iron is an iron carbon alloy contains 3Â-5% carbon along with impurities like manganese, sulphur and phosphorous. It is a product of blast furnace.

Read More Answers.

#### Question #8

Tell us what are the differences between Brass and Bronze

Brass is an alloy of copper and zinc. Generally brass contains 60% copper and 40% zinc. These are used for making bearings, pump fittings, bushes and utensils. Bronze contains copper and tin. It is comparatively hard, surface wear is less, can be remolded into any shape like wires, sheets, rods etc.

Read More Answers.

#### Question # 9

Tell me why heat treatment of steel is necessary?

#### Answer:-

- \* To improve machinability.
- \* To obtain desired properties.
- \* To increase resistance of corrosion.
- \* To change electrical and magnetic properties.
- \* To relieve the stresses after cold or hot working.
- \* To refine the grain size.

Read More Answers.

#### Question # 10

Tell us what do you mean by Stainless Steel?

It is an alloy steel which contains mainly 8% Nickel and 18% Chromium. Stainless steel main applications in measuring and surgical instruments.

Read More Answers.

#### Question # 11

Can you define the following metal properties (a) Machinability (b)Malleability

#### Answer:-

(a) Machinability is the property of metal due to which a metal can easily be cut by cutting tools to obtain good surface finish. E.g.: Brass, Mild steel

(b) Malleability is the property of the metal on account of which it can be extended in all directions by hammering or rolling. E.g.: Tin, Lead

Read More Answers.

#### Question # 12

Tell us what Are The Common Heat Treatment Processes Used In Industries?

The following heat treatment processes are generally used in manufacturing:

- \* Hardening
- \* Tempering \* Annealing
- \* Normalising \* Case hardening

Read More Answers.

## Question # 13

Tell me why Is It Not Possible To Harden Unalloyed Tool Steel Part Right Through Its Full Thickness?

Because it requires very high cooling rate which is only possible for its outer surface.

Read More Answers.

Can you please explain the difference between differentiate Carbon Steel And Alloy Steel?



#### Answer:-

Carbon steel is the combination of iron and carbon. It is easily rusted and malleable. It can be easily machined and magnetic. Alloy steel is the combination of iron, carbon and other alloying elements. It is rust proof and harder and tougher. It is hard for machining and non magnetic.

Read More Answers.

#### Question #15

Tell me what is Heat treatment?

#### Answer:

Heat treatment is an operation involving heating and cooling of metals to change its properties.

Read More Answers.

#### Question # 16

Tell me why is the most of cutting tools made out in H.S.S?

#### Answer:-

Because it resist the heat on the cutting edge of tool and it smoothly work in high speed.

Read More Answers.

#### Question # 17

Tell us the following properties of metal:

- (a) Fusibility
- (b) Stiffness
- (c) Ductility

#### Answer:-

Fusibility. It is the property of metal due to which a metal becomes fluid when it is heated.

Stiffness. It is the property of metal due to which a metal is capable of resisting deflection due to an externally applied load.

Ductility. It is the property of metal due to which a metal can be drawn into the form of wires without rupture.

Read More Answers.

#### Question # 18

Tell us what Are The Chemical Composition Of Gun Metal, German Silver And Duralumin?

#### Answer:

Gun metal is an alloy of 88% copper, 10% tin and 2% zinc. It is generally used for casting boiler fittings, bearings ,bushes etc.

German silver is an alloy of copper, nickel, tin and led. It is used for making utensils and resistances in electrical work.

Duralumin is the aluminium alloy contains 3.5Â-4.5% copper,0.4Â-0.7% magnesium,0.4Â-0.7% manganese and remaining aluminium .Mainly used for making bars, tubes, rivets, sheets ,forgings and stampings.

Read More Answers.

## Question # 19

Do you know The Annealing Process?

#### Answer:-

The process for softening the steel part is called Annealing. Generally it is done for the following purposes,

- \* To soften the steel for machining.
- \* To refine the grain size in the steel.
- \* To increase ductility in the steel.
- \* To relieve internal stresses.
- \* To change electrical and mechanical properties.

Read More Answers.

#### Question # 20

Do you know what Are The Commonly Found Iron Ores?

#### Answer:-

Hematite, Magnetite, Limonite, Siderite and Iron pyrite are the main iron ores.

Read More Answers.

#### Question # 21

Tell us how will you identify cast iron, mild steel and high carbon steel?

#### Answer:-

By spark: When a metal is held against grinding wheel it gives sparks. Cast iron gives thick and short sparks. Mild steel gives medium and dense sparks and High carbon steel gives long and dense sparks.

By hammering: When a blow of hammer is given with these metals there will be a deep spot on mild steel, less deep spot on high carbon steel and cast iron may break.

Read More Answers.

#### Question # 22

Tell me how does carbon affects the properties of steel?



#### Answer:-

If carbon content is higher the degree of hardness is more and the melting point is lower, If carbon percentage is lower it is easy to forging and forge welding. Read More Answers.

#### Question #23

Tell me why Are Cast Iron Seasoned Before Machining?

For easy machining and saving the cutting edge of the tool.

Read More Answers.

#### Question # 24

Tell us why Is The Most Of Cutting Tools Made Out In H.s.s?

Because it resist the heat on the cutting edge of tool and it smoothly work in high speed.

Read More Answers.

#### Question # 25

What is high speed steel?

#### Answer-

High speed steel is an alloy of 18% tungsten, 4% chromium, 1% vanadium, 4% cobalt and 0.7% carbon. This is generally used for making machine tools like lathe ,planer, shaper, taps, drills and milling cutters. 

Read More Answers.

#### Question # 26

Tell us why are cast iron seasoned before machining?

#### Answer:-

For easy machining and saving the cutting edge of the tool.

Read More Answers.

#### Question # 27

What is fusibility?

It is the property of metal due to which a metal becomes fluid when it is heated.

Read More Answers.

#### Question # 28

Do you know what Is Heat Treatment?

Heat treatment is an operation involving heating and cooling of metals to change its properties.

Read More Answers.

#### Question # 29

What is bright steel?

#### Answer:-

Bright steel contains 0.05 to 0.45% carbon and up to 0.2% lead. It is used for making set screws, bolts, pins which withstand high loads at longer time.

Read More Answers.

#### Question #30

Please explain why are machine beds made of cast iron?

Because it has more compressive strength and negligible shrinkage. It can easily cast into any integral shape, wear resisting and can absorb vibrations.

Read More Answers.

## Question #31

Tell me what is ductility?

#### Answer:-

It is the property of metal due to which a metal can be drawn into the form of wires without rupture.

Read More Answers.

## Question # 32



Tell me which Type Of Grains Formed After Hardening The Steel?

#### Answer:

Hardened steel have contains fine grains.

Read More Answers.

#### Question #33

Tell me what do you mean by Smelting?

#### Answer:

Process of extraction of iron is called Smelting.

Read More Answers.

#### Question #34

What is babbit metal?

#### Answer:-

Babbit metal is a tin base white metal which contains 88% tin, 8% antimony and 4% copper. This is mainly used as a bearing metal.

Read More Answers.

#### Question #35

Tell me what Is Case Hardening?

#### Answer-

It is a process of making outer surfaces harder of the steel part. Generally it is done for the following purposes,

- \* To make outer surface harder.
- \* To bring the cost cheaper
- \* To utilize low carbon steel.

Read More Answers.

#### Question #36

What is stiffness?

#### Answer-

It is the property of metal due to which a metal is capable of resisting deflection due to an externally applied load.

Read More Answers.

#### Question # 37

Can you write the chemical composition and uses of the following:

- (1) Babbit metal
- (2) Bright steel
- (3) High speed steel

#### Answer:-

- \* Babbit metal is a tin base white metal which contains 88% tin, 8% antimony and 4% copper .This is mainly used as a bearing metal.
- \* Bright steel contains 0.05 to 0.45% carbon and up to 0.2% lead. It is used for making set screws, bolts, pins which withstand high loads at longer time.
- \* High speed steel is an alloy of 18% tungsten, 4% chromium,1% vanadium,4%cobalt and 0.7% carbon. This is generally used for making machine tools like lathe planer, shaper, taps, drills and milling cutters.

Read More Answers.

#### Question # 38

Tell me what is machinability?

#### Answer:-

Machinability is the property of metal due to which a metal can easily be cut by cutting tools to obtain good surface finish. E.g.: Brass, Mild steel

Read More Answers.

#### Question #39

Tell me what Are The Differences Between Brass And Bronze?

#### Answer-

Brass is an alloy of copper and zinc. Generally brass contains 60% copper and 40% zinc. These are used for making bearings, pump fittings, bushes and utensils. Bronze contains copper and tin. It is comparatively hard, surface wear is less, can be remolded into any shape like wires, sheets, rods etc.

Read More Answers.

#### Question # 40

What is malleability?

#### Answer:-

Malleability is the property of the metal on account of which it can be extended in all directions by hammering or rolling. E.g.: Tin, Lead

Read More Answers.



#### Question # 41

Tell me what are the chemical composition of Gun metal, German silver and Duralumin?

#### Answer-

- \* Gun metal is an alloy of 88% copper, 10% tin and 2% zinc. It is generally used for casting boiler fittings, bearings ,bushes etc.
- \* German silver is an alloy of copper, nickel, tin and led. It is used for making utensils and resistances in electrical work.
- \* Duralumin is the aluminium alloy contains 3.5Â-4.5% copper,0.4Â-0.7% magnesium,0.4Â-0.7% manganese and remaining aluminium .Mainly used for making bars, tubes, rivets, sheets ,forgings and stampings.

Read More Answers.

#### Question # 42

What is Hardness Of The Metal?

#### Answer:

It is the property of the metal which makes a metal capable to resist surface penetration by other metals .Hard metals are High carbon steel and High speed steel.

Read More Answers.

#### Question # 43

Tell me why are the delicate parts quenched in oil?

#### Answer:-

To avoid cracks on the part.

Read More Answers.

#### Question # 44

Tell us how Does Carbon Affects The Properties Of Steel?

#### Answer:-

If carbon content is higher the degree of hardness is more and the melting point is lower, If carbon percentage is lower it is easy to forging and forge welding.

Read More Answers.

#### Question # 45

Do you know how is steel classified?

#### Answer:-

According to carbon percentage

- \* Low carbon steel: Less than 0.25% carbon
- \* Medium carbon steel: 0.25% Â-0.7% carbon
- \* High carbon steel: 0.7% Â-1.5% carbon

According to percentage of alloying elements

- \* a. Low alloy steel: Alloying element less than 8%
- \* b. High alloy steel: Alloying element more than 8%

Read More Answers.

#### Question # 46

Tell us what do you understand by Specific Gravity and Tenacity?

#### Answer:-

Specific Gravity . It is the ratio of the mass of 1cubic cm. of a substance to the mass of the same capacity of water.

Tenacity .It is the property of metal due to which a metal becomes strong enough to resist the pulling force.

Read More Answers.

#### Question # 47

Tell me what Do You Mean By Stainless Steel?

#### Answer:-

It is an alloy steel which contains mainly 8% Nickel and 18% Chromium. Stainless steel main applications in measuring and surgical instruments.

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#### Question # 48

Tell us why Are Machine Beds Made Of Cast Iron?

#### Answer:-

Because it has more compressive strength and negligible shrinkage. It can easily cast into any integral shape, wear resisting and can absorb vibrations.

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