单选题 1分

Rolling is the process of reducing the thickness (or changing the cross-section) of a long workpiece by ( ) forces applied through a set of rolls.

A compressive

B frictional

C shearing

D tensile

提交

多选题　1分

Which of the followings are the products of flat rolling?

A bar

B plate

C rod

D sheet

E strip

F tube

提交

单选题　1分

At the entrance zone of the roll gap, the strip moves faster than the rolls, so it can enter the roll gap and be reduced in thickness.

A　True

B　False

提交

单选题 1分

In flat rolling, at one point along the contact length, called ( ), the velocity of the strip is the same as that of the rolls.

A center point

B middle point

C neutral point

D slip point

提交

单选题 1分

The rolls pull the material into the roll gap through ( ) forces on the material.

A compressive

B frictional

C shearing

D tensile

提交

单选题　1分

Although friction is necessary for rolling materials, energy is dissipated in overcoming friction. Furthermore, high friction could damage the surface of the rolled product.

A　True

B　False

提交

单选题 1分

In rolling practice, low and controlled friction is induced through the use of effective lubricants.

A True

B False

提交

单选题　1分

In flat rolling, draft is defined as the difference between

the original and final (　　) of the strip.

A　cross-sectional area

B　length

C　thicknesses

D　volume

E　width

提交

多选题 1分

Roll forces can be reduced by:

A reducing friction

B using smaller-diameter rolls

C taking smaller reductions per pass

D rolling at elevated temperatures

E applying front and/or back tension to the strip

提交

多选题 1分

Which of the followings are caused by too high roll forces?

A flattening of rolls

B roll bending

C spreading of strip

D thermal camber of rolls

提交

单选题 1分

As a result of （ ）, the rolled strip tends to be thicker at its center than at its edges.

A flattening of rolls

B roll bending

C spreading of strip

D thermal camber of rolls

提交

单选题 1分

As a result of （ ）, the rolled strip tends to be thinner at its center than at its edges.

A flattening of rolls

B roll bending

C spreading of strip

D thermal camber of rolls

提交

单选题　1分

The flattening of the rolls is undesirable, because it produces a larger roll radius and a larger contact area for the same draft. The roll force, in turn, increases with increased flattening.

A　True

B　False

提交

单选题 1分

Spreading of the strip tends to take place in the rolling of sheet having high width-to-thickness ratios rather than in that having smaller width-to-thickness ratios.

A True

B False

提交

单选题 1分

Hot rolling is done above 500℃.

A True

B False

提交

单选题 1分

Hot rolling is done above the （ ）temperature of the metal.

A crystallization

B elevated

C recrystallization

D room

提交

单选题 1分

Which one is NOT the characteristic of a wrought structure?

A brittle

B enhanced ductility

C finer grains size

D non-porosity

提交

单选题 1分

Which one is NOT the product of the first hot rolling?

A billet

B bloom

C ingot

D slab

提交

单选题 1分

Which one of the following hot-rolling products has the rectangular cross-section?

A billet

B bloom

C ingot

D slab

提交

单选题　1分

Which one of the following products has the square cross-section?

A billet

B I-beam

C plate

D sheet

提交

单选题 1分

In hot-rolling, conditioning is usually done by various means to remove ( ), which mainly consists of the oxides.

A alligatoring

B cracks

C scale

D wavy edges

提交

单选题 1分

Compared to hot rolling, which one is NOT the advantage of cold rolling process?

A better dimensional tolerances (accuracy)

B better surface finish

C enhanced mechanical properties

D finer grain size

提交

单选题 1分

Which one of the following process is applied to improve the productivity?

A flat rolling

B leveling rolling

C pack rolling

D temper rolling

提交

单选题 1分

Which one of the following process is applied to improve the flatness of the rolled sheets?

A flat rolling

B leveling rolling

C pack rolling

D temper rolling

提交

单选题 1分

Which one of the following process is applied to improve the fatigue life of the rolled sheets?

A flat rolling

B leveling rolling

C pack rolling

D temper rolling

提交

单选题 1分

Which one of the following flat-rolling defects is mainly caused by roll bending?

A alligatoring

B cracks

C scale

D wavy edges

提交

单选题　1分

Which one of the following flat-rolling defects is usually the result of poor material ductility?

A　alligatoring

B　cracks

C　scale

D　wavy edges

提交

单选题 1分

This figure shows the defect of ( ) in flat-rolling.

A alligatoring

B cracks

C scale

D wavy edges

提交

单选题 1分

( ) rolling mill is mainly used for hot rolling in initial breakdown passes on cast ingots or in continuous casting.

A Two-high

B Three-high

C Four-high

D Cluster

提交

单选题　1分

(　　) rolling mill is also called reversing mill.

A　Two-high

B　Three-high

C　Four-high

D　Cluster

提交

多选题 1分

Which types of rolling mills usually use small-diameter rolls?

A Two-high

B Three-high

C Four-high

D Cluster

提交

单选题 1分

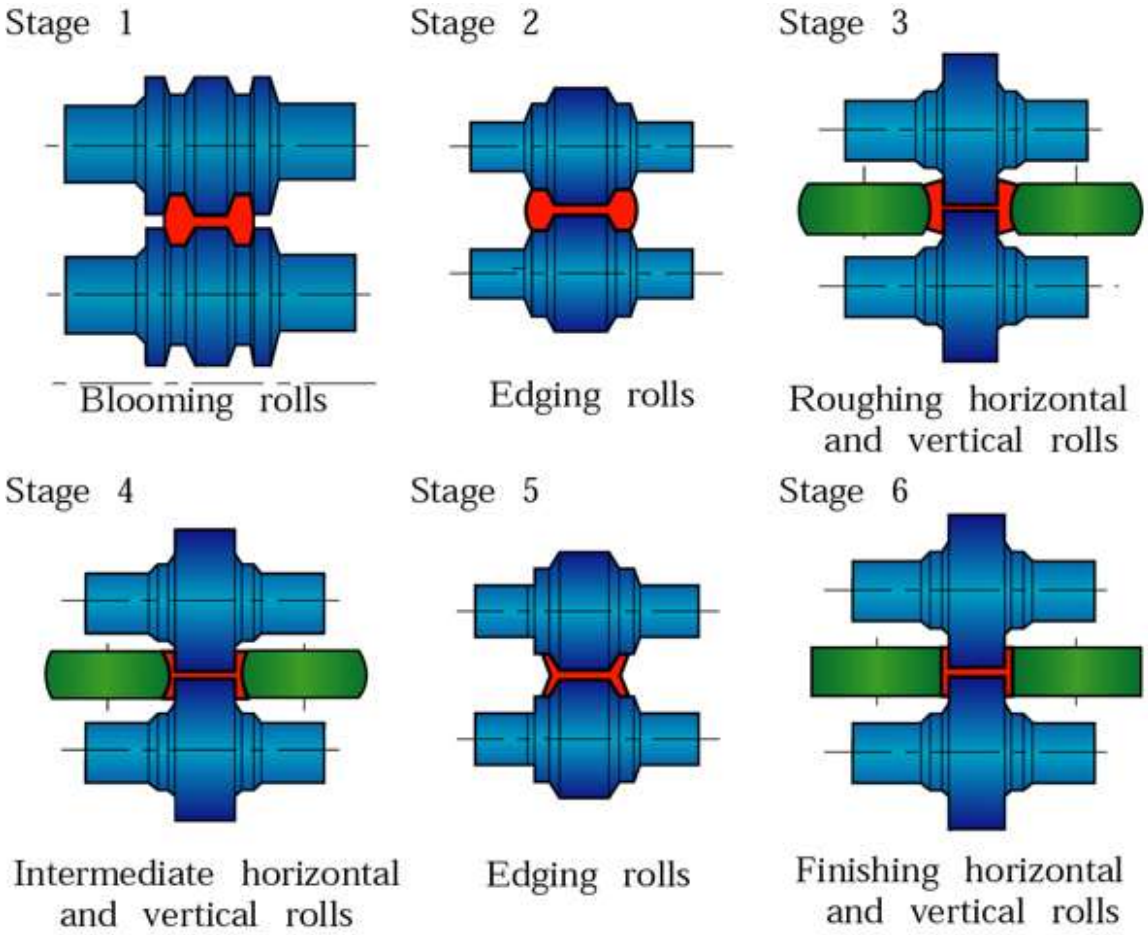
This figure shows the steps in the ( ) process of metal.

A flat rolling

B leveling rolling

C pack rolling

D shape rolling



提交

单选题 1分

Roll-pass design requires considerable experience in order to avoid external and internal defects, to hold dimensional tolerances, and to reduce roll wear.

A True

B False

提交

单选题 1分

In the ring-rolling process, a thick ring is expanded into a large diameter thinner one.

A True

B False

提交

单选题　1分

In the ring-rolling process，since the volume of the ring material remains constant during plastic deformation (volume constancy), the reduction in thickness results in an increase in its length.

A　True

B　False

提交

多选题 1分

Compared to other manufacturing processes capable of making a ring, the advantages of ring-rolling process include:

A short production times

B material savings

C close dimensional tolerances

D favorable grain flow in the product

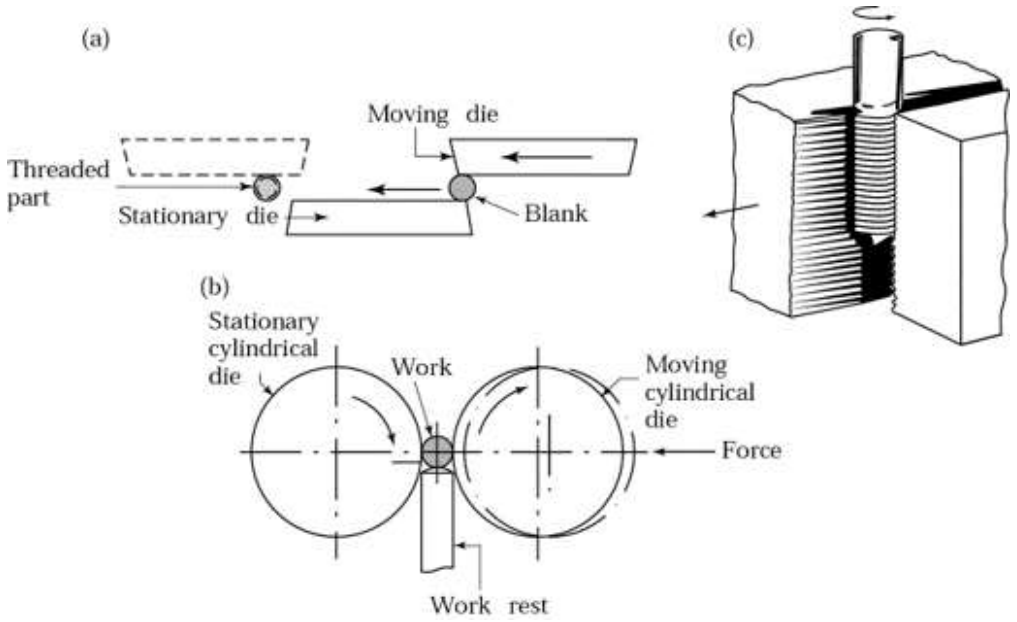
提交

单选题　1分

Thread rolling is a process of forming straight or tapered threads on round rods by passing them between dies, which is usually done at elevated temperature.

A　True

B　False



提交