What is the differences blo pattern & casting. What we the advantages of Casting process mention its applications.

Ans!

The casting process can produce everything from art pieces to engine parts. The shape is determined by the mold cavity, but something needs to shape the mold it is known as pattern. Patterns are a model for the object to be cast.

## Advantages

- 1. Intricate shapes can be cast
- 2. Almost all the metals and alloys and some plastics can be cast.
- 3. Parts can be made almost to the finished shapes.
- 4. Good mechanical proporties.

Applications

1. Liners

2. Markine tool bets

3. Pistons

4. Piston rings

5. Mill nolls

6. Cylinder blocks

7. Automobile parts etc

4 रिकास के अवम्बर एक हिंद त्यारी

2 सेलाहरी वर्श मेंड महांत्रीय कर्य योक्षा वार्त नेका ह

to Forth an he made about to the finds.

to Gud wicharded properties

- 1. Liners
- 2. Marhine tool bets
- 3. Pistons
- 4. Piston rings
- 5. Mill rolls
- 6. Cylinder blocks
- 7. Automobile parts etc
- 2. Difference blw pressurized & unpressurized gating system with reference to the applications

Presswized unpressurized gating system

Southing willed to

- 1. Gating ratio may 1. Gating ratio may be be of the order of the order of 1: 3:2:1
- 2. Air aspiration effect is minimum.
- 2. Au asporation effect is more.

- 3. Volume flow of liquid from energy ingate is almost equal
- 4. They are smaller in volume for a given flow rate of metal. Therefore the Casting yield is
- 5. Velocity is high, somere turbulence may occur at corners.

- 3. Volume flow of liquid from every ingate is different
- 4. They are larger in volume because they involve large numers & gales as compared to pressurized system and thus the cast yield is reduced.
- 5. Velouty is low & turbulence is reduced.

A. What are the unions patterns used & how the investment casting process takes places discuss its applications. The various patterns used for casting are 1. Single piece 2. deplit 3. Cope and drag + Sweep 5. Skellon 6. Yated 7. Match plate 8. Shell. In investment casting wax is used for/as pattern making. The following steps are taken in investment casting process: 1. Pattern creation (wan) 1. Mould creation ( Sodium Silicate or ceramic or refractory grains) 3. Pattern nemoual 4. Casting preparation 5. Mould removal 6. Inspection (If any defects)

MILES MILES

Applications:

1. Acreplanes parts

2. Turbine complex shapes

3. Turbine blades

4. Military parts

5. Movine parts

What is the difference bliv Ac are welding & DC are welding?

Ac one welding	DC and welding
1. More efficiency	1. less efficiency
2. Pouler consumption is less	2. Pouer consumption Les more.
3. Cost of equipment is less.	3. Cost of equipment

4. High woltage which is not safe.	4. low nottage which is safe.
5. Non fevrous metals are not suitable.	5. Suitable for both fevrous & non fevrous metals.
6. Not suitable for welding this sections	6. For this & thick sections.
7. Any terminal Can be connected to work 8 electrode.	7. +ve terminal connected to work and -ve to electrode

6. Describe Oxyacetylene techie & gine its applications.

What is the differences blw pattern & casting. What are the advantages of Casting process mention its applications.

The casting process can produce everything from art pieces to engine parts. The shape is determined by the mold cavity, but something needs to shape the mold it is known as pattern. Patterns are a model for the object to be cast.

## Advantages

- · Intricate shapes can be cast
- 2. Almost all the metals and alloys and some plastics can be cast.
- 3. Parts can be made almost to the finished shapes.
- 4. Good mechanical proporties.

## Applications

- 1. Liners 2. Machine tool bets
- 3. Pistons
- 4. Piston rings
- 5. Mill nells
- 6. Cylinder blocks
- 7. Automobile parts etc
- 2. Difference blw pressurized & unpressurized gating system with reference to the applications

Pressurized gating system	unpressurized gating system
be of the older	1. Gating ratio may be of the order of 1: 3:2
2. Ace aspiration effect is minimum.	2. Air asporation effut is more.

- 3. Volume flow of liquid from every ingate is almost
- 4. They are smaller in volume for a given flow rate of metal. Therefore the Casting yield is higher.
- 5. Velocity is high, Servere turbulence may occur at corners.

- 3. Volume flow of liquid from every ingate is different
- 4. They are larger in Volume because they involve large nurvers & gales as compared to pressurized system and thus the cast yield is reduced.
- 5. Velouty is low & turbulence is reduced.

a) What is the significance of shrinkage in the production of casting?

They play an essential note in promoting directional solidification where the metal solidifies at the furthest point first before moving towards the riser. Using this approach, the Cavity forms in the nisers and not the casting.

b) Explain Solidification of metals

Same Turkeling . . Tolkenit Thurk

A. What are the unious patterns used & how the investment casting process takes places discuss its applications.

The various patterns used for casting are 1. Single piece 2. Split 3. Cope and drag

4. Sweep 5. Skellon 6. Yated 7. Match plate 8. Shell.

In investment casting wan is used for/as pattern making. The following steps are taken in investment casting process:

1. Pattern creation (wan)

2. Mould creation ( Sodium Silicate or counice or refractory grains)

3. Pattern nemoual

4. Casting preparation

5. Mould removal

6. Inspection (If any defects)

- 1. Acroplanes parts
- 2. Turbine complex shapes
- 3. Turbine blades
- 4. Military parts
- 5. Merire parts

What is the difference bliv Ac are welding & DC are welding?

Ac are melding	De are welding
1. More efficiency	1. less efficiency
2. Pouler consumption is less	2. Pouser Consumption Les more.
3. Cost of equipment	3. Cost of equipment

more.

The state of the s	
4. High woltage which is not safe.	4. low nottage which is safe.
5. Non ferrous metals are not suitable.	5. Suitable for both ferrous s non ferrous metals.
6. Not suitable for welding thin sections	6. For this & thick sections.
7. Any terminal Can be connected to work 8 electrode.	7. +ve terminal connected to work and -ve to electrode

6. Describe Oryacelylene techie & give its applications.

i. It is the common method of gas welding.

II. The ony-acetylene welding process combines
onygen and acetylene gas to provide a
high temperature flame for welding.

iii This temperature proudes enough heat to mex

In The chemical reaction blow acetylene and oxygen is enothermic in nature.

v. Ony-acetylene flame may also be used for all types of brazing.

VI. Oxy-acetylene welding is a manual process.

Applications;

1. It is used for welding & cutting operations for metals & alloys.

· simply

a get to people interest of the

the but actifiers natified process and

coulder any anapolone are to the collect

and more deal for