

BASIC TECHNOLOGY

1) Explain two methods of processing plastic

Answer

- Compression moulding: Compression moulding is a forming process in which a plastic material placed directly into a heated metal mold. Compression molding is a forming process in which a plastic material is placed directly into a heated metal mold then is softened by the heat and therefore forced to conform to the shape of the mold, as the mold closes. Once molding is completed excess Flash may be removed.
- Injection molding: injection molding is a forming process using molds. Materials like as synthetic resins (plastics) are heated and melted, and then sent to the mold where they are cooled to form the designed shape. Due to the resemblance to the process of injecting fluids using a syringe, this process is called injection molding

2) What do you understand by injection moulding and extrusion molding

Answer

- Injection moulding: : injection molding is a forming process using molds. Materials like as synthetic resins (plastics) are heated and melted, and then sent to the mold where they are cooled to form the designed shape. Due to the resemblance to the process of injecting fluids using a syringe
- Extrusion molding: Extrusion molding is used to form plastic or metal materials into a pre-defined shape

3) Name the 2 major raw material for rubber production

Answer

- Latex
- Thermoset

4) What do you understand by isometric projection?

Answer

Isometric projection is a method for visually representing three-dimensional objects in two dimensions in technical and engineering drawings.

5) Name the isometric axes

Answer

- One vertical axes
- Two horizontal axes

6) List the advantages and disadvantages of the following:

i. Transfer moulding :

a. Advantage :

▪ Shorter production cycle for higher weight parts
▪ Tighter dimensional tolerance

b. Disadvantages :

▪ More expensive tooling than a compression mould
▪ Slower process cycle than an injection tool

ii. Compression molding:

a) Advantages :

▪ It is a simpler process
▪ It involve lower tooling cost

b) Disadvantages:

▪ It has a higher chance of post molding cost
▪ It has slower processing time

7) What are the advantages of moulding and firing methods of clay and ceramics

Answer

Moulding:

- Easily available
- Imexpensive

Firing:

- It harden the clay and makes it durable
- The kiln is usually used for this purpose.

8) What are the raw materials for making Glass.

Answer

- Soda ash
- Lime stone
- Sand

9)

What is glass blowing

Answer

The craft of making glassware by blowing air into semi-molten glass through a long tube

10) State two advantages and disadvantages of casting method of metal.

Answer

Advantages:

- Vast size range
- Fast production

Disadvantages:

- A high tooling cost and a long set-up time.
- The permanent mold casting process is, in general, limited to smaller castings.