

Sol. ans 1. (i) Centrifugal Casting :-

- It is the process in which metal is poured into a mould which is rotated about its centre rapidly.
- Due to centrifugal force, a continuous pressure will be acting on the metal during solidification.
- The impurities are higher than pure metal, so impurities segregate toward the centre.
- This method is generally used for symmetrical cast product.

(ii) Investment Casting :-

- It is an industrial process based on lost-wax casting, one of the oldest known metal-forming techniques. The term "lost wax casting" can also refer to modern investment casting process.
- Investment casting has been used in various forms for the last 5000 yr. In its earliest forms, beeswax was used to form pattern necessary for the casting process. Today, more advanced waxes, refractory materials and specialist alloys are typically used for making patterns.
- Investment casting is valued for its ability to produce components with accuracy, repeatability, versatility & integrity in a variety of metals & high performance alloys.

(iii) Stir Casting :-

- It is a liquid state method for the fabrication of composite materials, in which a dispersed phase is mixed with a molten matrix metal by means of mechanical stirring.
- It is the simplest and most cost effective method of liquid state fabrication.

(iv) Continuous Casting :-

- It consists of pouring the molten metal into the upper end of a long vertical metal mould (open at both ends) and cooling rapidly by water.
- Continuous casting is also called strand casting, prior to the introduction of continuous casting in the 1950s, steel was poured into stationary molds to form ingots. Since, then "continuous casting" has evolved to achieve improved yield, quality, productivity and cost efficiency.