

Time 2hrs

CASTING TECHNOLOGY MEL780

Max Marks 80

Q1. Explain with the help of neat diagrams the process of casing of dental implants .
(10)

Q2. Explain the process of solidification, how do you design a riser for Al casting of an engine block.
(10)

Q3. What are non destructive testing methods, name at least three methods, explain any one of them.
(10)

Q4. Explain the various cast irons, giving their composition, structure, properties, and applications. With the help of a neat and labeled diagram describe the casting of a SG Iron crank shaft for a four cylinder engine, using the process of sand molding.
(10)

Q5. Explain the spiral test, what property of metal is tested by the spiral test? What is permeability and how do you determine it in a foundry?
(10)

Q.6 Write short notes on any six of the following;

- a. Investment Casting
- b. Spin Casting
- c. Hot Chamber Die Casting
- d. Micro Casting
- e. Heat Treatment of Castings
- f. Casting of Al alloys
- g. Casting of Cu alloys
- h. Casting of Porous Mg
- i. Casting of Titanium

j. Computer Tomography to monitor solidification

(30)