

SRINIVASAN ENGINEERING COLLEGE, PERAMBALUR
DEPARTMENT OF AERONAUTICAL ENGINEERING
AE 2253-PRODUCTION TECHNOLOGY
16 MARKS QUESTIONS

UNIT-I
CASTING

1. What are the pattern allowances? Explain briefly each.
2. Discuss the properties of moulding sand.
3. Explain the CO₂ process of core making state its advantages and applications.
4. State the different type of mould. Write a short note on 'Green sand mould' and shell moulding
5. Write a neat sketch of a cupola, Explain its operate.
6. Explain with a simple sketch how metal is melted in a cupola furnace.
7. What are the different types of furnace used in foundry? Describe in detail with neat sketches any one of them.
8. Explain briefly the various moulding method used in foundries.
9. Enumerate the continuous casting defects and suggest suitable remedies.
10. Explain the various non –destructive inspection methods of cast products.

UNIT-II
WELDING

1. Explain the method of laser beam welding and give their applications
2. Explain the method of electron beam welding and given their applications
3. Describe plasma Arc welding and given their applications
4. Describe and explain Ultrasonic welding and give their applications
5. Explain Thermit welding and given their applications

6. What is friction welding? give their advantage and limitations
7. Distinguish between brazing, soldering and welding
8. Write briefly on testing and inspection
9. Describe brazing process

UNIT-III MACHINING

1. Explain the hot working and cold working with suitable examples
2. Define rolling and discuss according to the classification
3. Discuss the various forging operations
4. Give the advantage of press forging over drop forging
5. What are the defects in forgings? Explain it.
6. How the pipe and tubes are manufacturing?
7. Define drawing and discuss the classification with neat sketch
8. What are the defects in rolled parts?

UNIT-IV FORMING AND SHAPING OF PLASTICS

1. Describe shearing operations in a sheet metal work with a neat sketch
2. Describe various types of bending operations with its neat sketches
3. Explain any one method of stretch forming operation with a neat sketch
4. Explain hydro forming process with its neat sketches. State their advantage and applications
5. Explain the power spinning process with a neat sketch .give their applications
6. How magnetic pulse forming process is carried out on sheet metal?
7. Explain peen forming process with a neat sketch
8. What is super plastic of metal? How this process is carried out on sheet metals?

UNIT-V
METAL FORMING AND POWDER METALLURGY

1. What are the characteristics of the forming and shaping processes?
2. What are the types of moulding and thermoplastics?
3. Explain the working principles and application of
 - a) injection moulding
 - b) blow moulding
 - c) rotational moulding
 - d) film blowing
4. Explain the thermoforming process
5. Explain induction and ultrasonic methods.
6. Explain working and principle of applications of
 - a. compression moulding
 - b. transfer moulding (16)