



**Sri Vidya College of Engineering and Technology
Virudhunagar – 626 005**



Department of Mechanical Engineering

ME6302 Manufacturing Technology I

Question Bank / Unit 3 – METAL FORMING PROCESSES

PART-A (2 MARKS)

1. List out the types of forging machines
2. What are the types of rolling mills?
3. What are the four major draw backs of hot working?
4. Classify the types of extrusion
5. State any two effects produced by Cold-working
6. What are the two basic types of forging process?
7. What do you understand by forging? What are the advantages?
8. List out the forging defects
9. Classify the types of forging machines
10. State the defects in rolled parts.
11. What are the advantages of cold forming?
12. What is the purpose of piercing operation?
13. Name any four limitations of hot forging
14. Write the limitations of hot working process
15. What is the difference between stretch forming and bending?
16. What do you understand by recrystallisation and recrystallisation temperature?
17. What are the general advantages of forging as a manufacturing process?
18. List the functions of Back-up rollers in rolling operation?
19. Discuss in brief open die and closed die forging
20. What is the principle of impact forging?

PART-B (16 MARKS)

1. Classify the types of forging machines and explain any one
2. Explain the forward and back extrusion process
3.
 - i. Classify the types of rolling mills and sketch them
 - ii. List out various forging defects
4.
 - i. Describe hydrostatic extrusion process.
 - ii. Compare press forging and hammer forging
5.
 - i. Explain the tube piercing process
 - ii. Distinguish hot and cold extrusion process and briefly explain one in each.
6.
 - i. Describe the principle of rolling. Write the various kinds of rolling mills along with their applications
 - ii. What are the types of power hammers available and explain the pneumatic hammer with a neat sketch
7.
 - i. Describe the difference between a bloom, a slab and a billet. Explain the features of different types of rolling process.
 - ii. Discuss the effects of temperature, strain rate and friction on metal forming process
8.
 - i. Explain with a sketch, what is meant by flat strip rolling.
 - ii. Explain the procedure for making the head of Bolt by forging operation
9.
 - i. Name the hand forging operation and explain briefly about them.
 - ii. Explain with a neat sketch of roll forging process.
10. Describe the following processes
 - a. Roll die forging
 - b. Skew rolling
 - c. Ring rolling