

Question Bank

Q-1 Each question has a three marks

- (1) Define (i) dry drawing (ii) wet drawing (iii) tube drawing.
- (2) Define the following terms: (i) Hot forming, (ii) Cold Forming, (iii) Flow Stress
- (3) Explain clearance in sheet metal operation
- (4) Explain Forming Limit Diagram
- (5) What do you understand by shear on punch and die?
- (6) Define angle of bite and discuss its effect in rolling process
- (7) Explain Blanking operation with neat sketch
- (8) Differentiate direct and indirect extrusion process
- (9) Define angle of bite and discuss its effect in rolling process
- (10) State types of rolling mills used in rolling process.
- (11) What is upset forging?
- (12) Why friction measurement is necessary in forming process ?
- (13) Discuss on materials used for making wire drawing dies

Q-2 Each question has a four marks

- (14) How do you represent strain hardening effect?
- (15) State difference between hot forming and cold forming.
- (16) Explain spring back effect in bending process.
- (17) State various factors which affect the FLD (Forming Limit Diagram).
- (18) Differentiate direct and indirect extrusion process
- (19) What are the benefits of hydrostatics extrusion process?
- (20) How is impression die forging different from closed die forging?
- (21) State difference between compound and progressive dies.
- (22) Explain various Rolling defects,

- (23) How Work hardening does affect the mechanical properties?
- (24) Explain spring back effect in bending process.
- (25) Explain Anisotropy in sheet metal
- (26) Explain Wire Drawing processes in brief.
- (27) What are the benefits of hydrostatics extrusion process?
- (28) State difference between compound and progressive dies.

Q-3 Each question has a seven marks

- (29) Explain about importance of Upper bound and Lower bound theorem in metal forming.
- (30) Give short note on Two-Dimensional Mohr's circle method for stress analysis.
- (31) Explain typical arrangement of roll & roll mills with neat sketches
- (32) Explain various operations performed on sheet metal press machine
- (33) Explain friction board drop hammer for forging
- (34) Discuss analysis of strip rolling derive equation for projected arc length
- (35) What is Drawability? List and Discuss factor Affecting to Drawability
- (36) State general advantages of metal forming
- (37) What do you understand by camber of sheet and camber of roll?
- (38) Explain two dimensional Mohr's Stress circles.
- (39) State and prove Hencky's First theorem
- (40) Explain VonMises & Tresca theory of yielding
- (41) What is drawability? List and discuss factor affecting to drawability
- (42) Explain Isotropic and Kinematic work hardening with neat sketches
- (43) How does hydrostatic pressure affect the yield strength of metal?