

- Q.19 Compare progressive and compound press tools with advantages and limitations. (CO2)
- Q.20 Discuss the term-curling, coining, embossing.(CO1)
- Q.21 Design any blanking tool. (CO4)
- Q.22 Give classification of strip layout. (CO3)

### SECTION-D

- Note:** Long answer type questions. Attempt any two questions out of three questions. (2x8=16)
- Q.23 Design and draw a simple blanking tool. Explain the key components and their functions in detail. (CO4)
- Q.24 Discuss the design principles and drawing of a progressive tool. Provide a step-by-step explanation of its operation. (CO4)
- Q.25 Draw and design a piercing tool considering suitable dimensions and write its two functions. (CO1)

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### 3rd Sem / Mechanical (Tool & Die Design)

### Subject : Press Tool - Design and Drawing

Time : 3 Hrs.

M.M. : 60

### SECTION-A

- Note:** Multiple choice questions. All questions are compulsory (6x1=6)

- Q.1 Following is a multi-operation die. (CO2)
- a) Cutting die                      b) Forming die
- c) Compound die                  d) All of the above
- Q.2 Following is not a shearing operation. (CO1)
- a) Blanking                          b) Piercing
- c) Punching                         d) Forming
- Q.3 The total opening between the ram and the bed when the ram is in its extreme down position (CO3)
- a) Stroke length                  b) Die space
- c) Shut height                      d) Press adjustment
- Q.4 Which type of press is best suited for high-speed press tool operations? (CO3)

- a) Hand Press                      b) Hydraulic Press
- c) Pneumatic Press              d) Mechanical Press

Q.5 What is the main purpose of the cutting clearance in press tool design? (CO4)

- a) To increase die life
- b) To minimize material utilization
- c) To reduce shearing force
- d) To prevent tool wear

Q.6 What is the primary function of a stripper plate in a press tool? (CO2)

- a) Hold the punch in place
- b) Guide the material
- c) Strip the part from the punch
- d) Align the die and punch

### SECTION-B

**Note:** Objective/ Completion type questions. All questions are compulsory. (6x1=6)

Q.7 Bending tools are used for creating holes and cut-outs in sheet metal. (True/False) (CO4)

Q.8 The primary function of the stripper plate is to \_\_\_\_\_ the part from the punch. (CO3)

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Q.9 Name any two non-cutting press tool operations. (CO1)

Q.10 In press tool design, the \_\_\_\_\_ is responsible for guiding the material during the operation. (CO1)

Q.11 Trimming tools are used for finishing operations in press tool design. (True/False) (CO1)

Q.12 Shearing force is the force responsible for \_\_\_\_\_ the material during press tool operations. (CO1)

### SECTION-C

**Note:** Short answer type questions. Attempt any eight questions out of ten questions. (8x4=32)

Q.13 Differentiate between blanking and piercing tools. (CO4)

Q.14 Explain the working of a hydraulic press and its suitability for specific press tool operations. (CO3)

Q.15 Describe the principles of shearing force and stripping force in press tool design. (CO2)

Q.16 Discuss the types of bushes used in die-sets and their materials. (CO1)

Q.17 What are the primary factors influencing die life in press tool design? (CO3)

Q.18 Discuss the considerations for selecting the press for specific press tool operations. (CO3)

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