

- Q.29 Explain the various steps performed in press working operations.
- Q.30 Give the process of material feeding and slide feeding.
- Q.31 Explain the process of estimation of sheet materials, tool materials and machine hours through process planning.
- Q.32 Give the standard procedure for storage of press tools.
- Q.33 Explain the tool material specification and composition of main tool materials.
- Q.34 What is 3-2-1 principle of location?
- Q.35 Explain the Taylor's principle for designing plain limit gauges.

#### **SECTION-D**

- Note:** Long answer type questions. Attempt any two questions out of three questions. (2x10=20)
- Q.36 Enlist integrated operations which can be performed on Press Tool. Explain any two in detail with diagram.
- Q.37 Describe fine blanking operation. Explain the main constructional features, various tolerances and design features for the press tool for fine blanking operations.
- Q.38 Explain the construction of open jig and closed jig with diagram.

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202025

**2nd Year / Advance Diploma in Tool and Die Making**  
**Subject:- Tool Design Theory - I (Press Tools, Jigs & fixtures)**

Time : 3Hrs. M.M. : 100

#### **SECTION-A**

**Note:** Multiple choice questions. All questions are compulsory (10x1=10)

- Q.1 As the clearance increases, the punch force required?
- Decreases
  - Increases
  - Remains same
  - First increases and then decreases
- Q.2 Which of the following die can perform multiple operations such as blanking, punching, notching etc?
- Simple dies
  - Progressive dies
  - Compound die
  - Impact dies
- Q.3 Which of the following act as a support for tool die block
- punch holder
  - punch
  - die shoe
  - stops
- Q.4 Which of the following is a type of die
- Simple die
  - progressive die
  - compound die
  - All of above

- Q.5 Which of the following die is not the type of cutting die in the metal cutting operations  
a) Squeezing Die      b) Blanking Die  
c) Piercing Die      d) Notching
- Q.6 Removing the pieces from the edge in shearing operations is known as  
a) perforating      b) parting  
c) notching      d) lancing
- Q.7 Angular clearance provided on dies is of the order of \_\_\_\_\_  
a)  $5^{\circ}$  to  $10^{\circ}$       b)  $3^{\circ}$  to  $5^{\circ}$   
c)  $1/2^{\circ}$  to  $1^{\circ}$       d)  $0.1^{\circ}$  to  $0.5^{\circ}$
- Q.8 A good lubricant for thread cutting operations is  
a) white lead      b) water soluble oil  
c) mineral lard oil      d) emulsified oil
- Q.9 Which of the following is not correct about fixtures?  
a) It is used to hold the work  
b) It is used to position the work the work  
c) It assures high accuracy of parts  
d) It is used to guide the cutting tool
- Q.10 Which of the following is not used to measures the plain plug gauges if the tolerance less than 0.025 mm?  
a) Bench micrometer  
b) Diameter measuring machine  
c) Hand micrometer  
d) High magnification dial comparator

## SECTION-B

- Note:** Objective type questions. All questions are compulsory. (10x1=10)
- Q.11 Describe press.  
Q.12 What is plastic deformation?  
Q.13 Describe stripping and ejection.  
Q.14 Describe multi station die.  
Q.15 Define clearance.  
Q.16 Define press tonnage.  
Q.17 Define safety.  
Q.18 Write the use of component drawing.  
Q.19 Describe work sheet.  
Q.20 Define minimum material condition.

## SECTION-C

- Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)
- Q.21 Enlist the uses of press tools.  
Q.22 Write a short note on integrated operations.  
Q.23 What are main elements of a press tool and give their function also.  
Q.24 Explain the working of progressive die.  
Q.25 Write the steps performed in non cutting dies.  
Q.26 Write a short note on die life.  
Q.27 What are the points to be considered while selecting press or press tool operations.  
Q.28 What are the main features of press for fine blanking operation?