

- Q.27 Explain principle of conceptual design and process of developing alternative conceptual design selecting optional design.
- Q.28 Write the applications of conceptual design.
- Q.29 Write a short note on drawing norms and practices.
- Q.30 Discuss concept of drawing and lay out for assembly.
- Q.31 Write down the procedure for preparing bill of materials and handling procedure for press tool and components.
- Q.32 Write the advantages of 3D Modeling in CAD.
- Q.33 Explain six point location principle.
- Q.34 Write basic rules for locating.
- Q.35 What is limit gauge? Write principle of gauge design.

#### **SECTION-D**

**Note:** Long answer type questions. Attempt any two questions out of three questions. (2x10=20)

- Q.36 Describe die press tool. Explain the construction of a press tool with neat diagram showing its various components.
- Q.37 Explain with diagram various stages of drawing operation.
- Q.38 Explain in detail the procedures for designing jig & fixture.

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**Advance Diploma in Tool and Die Making**  
**Subject:- Tool Design Practice- I ( Press Tools, Jigs & Fixtures)**

Time : 4Hrs. M.M. : 100

#### **SECTION-A**

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

- Q.1 Designs are periodically modified to  
 a) improve product performance  
 b) strive for zero-based rejection and waste  
 c) make products easier and faster to manufacture  
 d) all of the mentioned
- Q.2 Which of the following acts as a support for the die block?  
 a) Punch holder      b) Punch  
 c) Die Shoe      d) Stops
- Q.3 Operation of cutting of a flat sheet to the desired shape is called?  
 a) Shearing      b) Blanking  
 c) Piercing      d) Punching
- Q.4 Compound dies performs  
 a) two or more operations at one station in one stroke  
 b) two or more operations at different stations in one stroke  
 c) only one operation and that too at one work station

- d) two operations at two different work stations in the same stroke
- Q.5** Which of the following is a type of die?  
 a) Simple dies      b) Progressive dies  
 c) Compound die    d) All of the mentioned
- Q.6** In drawing operation, increase of punch radius \_\_\_\_\_  
 a) Has much influence on punch load and it decreases  
 b) Does not influence the punch load much  
 c) Punch load increases  
 d) Punch load depends on other factors
- Q.7** Which of the following tools is most suitable for very hard and brittle material?  
 a) HSS                b) Cast-cobalt alloy  
 c) Carbides          d) None of the mentioned
- Q.8** A line with a tapering width can be easily created by using the \_\_\_\_\_ tool.  
 a) Circle             b) eclipse  
 c) line               d) polyline
- Q.9** Which of the following is not correct about fixture?  
 a) It is used to hold the work  
 b) It is used to position the work  
 c) Is assures high accuracy of parts  
 d) It is used to guide the cutting tool
- Q.10** 'Go limit' applied to which condition ?  
 a) Maximum material limit  
 b) Minimum material limit  
 c) Lower limit of shaft and upper limit of hole  
 d) Moderate material limit

## SECTION-B

- Note:** Objective type questions. All questions are compulsory. (10x1=10)
- Q.11** Write the material used for making press tools.  
**Q.12** Define standardization.  
**Q.13** Why blanking is used?  
**Q.14** Describe process-sheet.  
**Q.15** Describe conceptual design.  
**Q.16** What is tool data?  
**Q.17** Write full form of CAD.  
**Q.18** Describe use of jig.  
**Q.19** Define clamping.  
**Q.20** Which principle is used to design the gauge?

## SECTION-C

- Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)
- Q.21** Draw a tool design layout.  
**Q.22** Write the main parts of a die set.  
**Q.23** Explain with diagram the concept of strip layout.  
**Q.24** Explain the effect of grain direction and burr side on strip layout.  
**Q.25** Write a short note on process of preparation of work sheet.  
**Q.26** What are the main design parameters for a press tool.