

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