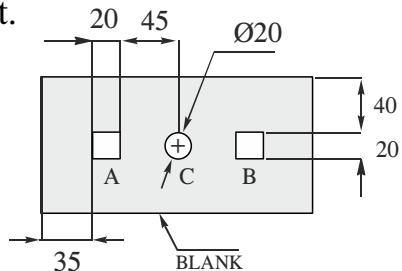


- Q.31 Outline the criteria for selection of press for press tool operation.
- Q.32 Sketch and explain a hand press.
- Q.33 Explain any one feeding mechanism with the help of a diagram for a press.
- Q.34 Where does grain direction come from? How does this affect folding?
- Q.35 What do you understand by material utilization? How important is it?

#### SECTION-D

**Note:** Long answer type questions. Attempt any two questions out of three questions.  $(2 \times 10 = 20)$

- Q.36 Design and develop the piercing tool for the given component.



$$t=2 \text{ mm}, T_{\max}=400 \text{ N/mm}^2$$

- Q.37 Design a progressive tool by assuming suitable operations and data for any utility component.
- Q.38 Explain any two of the following:
- Shear angle
  - Die life
  - Compound tool

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Roll No. ....

#### T&D, CNC, CAD/CAM Subject:- Press Tool Design and Drawing

Time : 3Hrs.      M.M. : 100

#### SECTION-A

**Note:** Multiple choice questions. All questions are compulsory  $(10 \times 1 = 10)$

- Q.1 Presses are generally employed in \_\_\_\_\_ production of \_\_\_\_\_ components.
- Mass, identical
  - Mass, dissimilar
  - Job, identical
  - Job, dissimilar
- Q.2 Following is not a shearing operation.
- Blanking
  - Piercing
  - Punching
  - Forming
- Q.3 Which of the following is a drawing operation.
- Embossing
  - Curling
  - Trimming
  - All of the above
- Q.4 Removing the pieces from the edge in shearing operation is known as?
- Perforating
  - Parting
  - Notching
  - Lancing
- Q.5 In fly press, the ram is moved by means of a
- Crankshaft
  - Screw
  - both (a) & (b)
  - None of the above
- Q.6 The total opening between the ram and the bed when

the ram is in its extreme down position.

- a) Stroke length      b) Die space
- c) Shut height      d) Press adjustment

Q.7 A thick plate fastened to the bed of the press which supports and holds the die assembly, is known as

- a) Supporting, plate      b) Bolster plate
- c) holding plate      d) rigid plate

Q.8 Which of the following die can perform multiple operations such as blanking, punching, notching etc.?

- a) Simple dies      b) Progressive dies
- c) Compound dies      d) Impact dies

Q.9 As the clearance increases, the punch force required?

- a) Decreases
- b) Increases
- c) Remains same
- d) First increases and then decreases

Q.10 \_\_\_\_\_ clearance is that value of the clearance which is just sufficient to enable production of a blank with a clean edge.

- a) Minimum      b) Maximum.
- c) Optimum      d) Average

### SECTION-B

**Note:** Objective type questions. All questions are compulsory.  $(10 \times 1 = 10)$

Q.11 What is press tool?

Q.12 Define shearing operation.

Q.13 What is embossing.

Q.14 What is punch?

Q.15 What is bush?

Q.16 Write any one function of die plate.

Q.17 What is compound tool?

Q.18 Define the cutting die.

Q.19 Why piloting is done?

Q.20 Define land.

### SECTION-C

**Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions.  $(12 \times 5 = 60)$

Q.21 List the various press tools and explain any one of them.

Q.22 Outline the criteria for selection of press tools for various operations.

Q.23 Explain the difference between curling and bending operations with an example.

Q.24 What do you understand by mass production? How presses are useful in mass production of industrial components?

Q.25 What do you understand by non cutting press operations? Explain any two.

Q.26 What are the BIS standards for bottom plate and top plate?

Q.27 What is bush? Write its type. Explain any one.

Q.28 What is stripper plate? Write its various functions.

Q.29 Write short note on cutting dies.

Q.30 What is the difference between construction of compound tool and progressive tool?