

- Q.26 Describe the method of reducing cutting force in metal cutting.
- Q.27 Write short note on plug gauges.
- Q.28 Explain drawing operations.
- Q.29 Give the advantage and disadvantages of limit gauges.
- Q.30 Write short note on press selection.
- Q.31 Explain Blanking Dies.
- Q.32 Describe any grinding fixture.
- Q.33 Differentiate between cutting and non-cutting dies.
- Q.34 GO and NOT GO snap gauges are to be designed for a hole of size
70.00 +0.50mm
-0.50mm.
Gauges tolerance can be taken as 10% of the hole tolerance. What will be the respective sizes of GO and NOT GO gauges?
- Q.35 Write short note on gauge tolerances.

SECTION-D

- Note:** Long answer type questions. Attempt any two questions out of three questions. (2x10=20)
- Q.36 Classify drilling jigs. Explain any two jigs with their diagrams.
- Q.37 Enumerate the parts of press tool die set. Explain the function of Punch, Pads, stripper plate, Stops, pilots.
- Q.38 Explain the principle of design of a forming die with a neat diagram.

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5th Sem / Branch : Prod., T & D Subject:- Tool Engg. - I

Time : 3Hrs.

M.M. : 100

SECTION-A

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

- Q.1 Which of the following cutting tool has highest hot hardness?
a) Ceramics b) Cast alloys
c) High speed steels d) Carbon tool steel
- Q.2 A small nose radius
a) Increases tool life b) Decreases tool life
c) Produces chipping and decreases tool life
d) Results in excessive stress concentration and greater heat generation
- Q.3 Which type of fixture used for machining on evenly spaced surfaces?
a) Plate fixture b) Vice jaw fixture
c) Indexing fixture d) Angle plate fixture
- Q.4 'Go limit' applied to which limit condition?
a) Maximum material limit
b) Minimum material limit
c) Lower limit of shaft and upper limit of hole
d) Moderate material limit

- Q.5 Wear allowance is provided on
- Go gauge
 - NOT GO gauge
 - Both Go and NOT GO gauge
 - When both are combined in one gauge
- Q.6 The size of press is expressed in
- Its stroke length
 - The maximum force its ram can exert
 - Die space
 - Ram speed
- Q.7 The following die consists of number of stations in a row.
- Combination die
 - Compound die
 - Progressive die
 - All of the above
- Q.8 What is the name of pin provided for locating work in subsequent operation from the previously pierced hole?
- Ring gauge
 - Snap gauge
 - Die gauge
 - Pilot
- Q.9 The height from the top of the bed to the bottom of the press ram is called?
- Die height
 - Maximum height
 - Shut height
 - Center height
- Q.10 Which die is mostly used to produce the washer?
- Combination die
 - Compound die
 - Progressive die
 - All of the above

SECTION-B

Note: Objective type questions. All questions are compulsory. (10x1=10)

- Q.11 _____ helps in freeing the punch from the scrap in the return stroke.
- Q.12 In _____ die, cutting and non cutting operations are performed per stroke.
- Q.13 _____ helps in freeing the punch from the scrap in the return stroke.
- Q.14 What is the value of lip angle in drill bits?
- Q.15 The function of stops is to _____.
- Q.16 Property of mating of parts taken randomly is known as _____.
- Q.17 The two main elements of jigs are _____ and _____ devices.
- Q.18 In die set _____ is used to position the stock strip accurately.
- Q.19 Coated tools have a coating of _____.
- Q.20 _____ are multi point cutting tools.

SECTION-C

Note: Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)

- Q.21 Explain the difference between tool bit and tool insert.
- Q.22 Write short note on tool wear mechanism.
- Q.23 Explain the principle and function of fixtures.
- Q.24 Describe the function and materials used for bushes.
- Q.25 Explain the GO and NOT GO gauges with examples.