

- Q.28 Write short note on any one multipoint cutting tool.  
 Q.29 Differentiate between Go & No gauge standards.  
 Q.30 Describe five factors affecting selection of tool material.  
 Q.31 Explain any five press working operations with diagram.  
 Q.32 Write five disadvantages of limit gauges.  
 Q.33 Describe five methods for safety in handling of dies & cutting tools.  
 Q.34 Explain five factors determining the punch & die clearance.  
 Q.35 Explain working of a forming die.

#### **SECTION-D**

- Note:** Long answer type questions. Attempt any two questions out of three questions. (2x10=20)
- Q.36 Draw and explain the steps in design of a blanking die for cutting a simple washer.  
 Q.37 Describe the punch and die clearances and factors governing them.  
 Q.38 Explain briefly the maintenance of die-tools.

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**4th Sem / Branch : Mech. Engg. (Production)**

**Subject:- Tool Engg.**

Time : 3Hrs.

M.M. : 100

#### **SECTION-A**

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

- Q.1 A plug gauge is used for measuring  
 a) Cylinders      b) Cylindrical bores  
 c) Spherical holes      d) Screw threads
- Q.2 The factor which affect the tool life is \_\_\_\_\_  
 a) Tool geometry      b) Cutting speed  
 c) Feed rate      d) All of the above
- Q.3 Wear allowance is provided on  
 a) Go gauge  
 b) No Go gauge  
 c) Both Go and No Go gauge  
 d) When both are combined in one gauge
- Q.4 The function of stripper is  
 a) To strip off the material from the punch  
 b) Remove material from the punch  
 c) Fixed the strip and punch  
 d) None of the above
- Q.5 Pick out the wrong statement about Taylor's principle of gauging  
 a) Go gauges should be full form gauges  
 b) Go gauges should check all the related dimensions simultaneously

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- c) It is sufficient to use Go gauges on the width and length of the component  
 d) Not Go gauges should check only one dimension at a time
- Q.6 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.7 The device which place the workpiece in the same position, in jig and fixture, cycle after cycle is called as  
 a) placing device    b) fixing device  
 c) locating device   d) positioning device
- Q.8 The following holds the workpiece securely in a jig or fixture against the cutting forces  
 a) Locating device   b) Clamping device  
 c) Guiding device    d) Indexing device
- Q.9 Tool engineering is \_\_\_\_\_  
 a) Process planning  
 b) Design and Development  
 c) Saving time, cost and process  
 d) All of the above
- Q.10 Which type of jig do not have a base plate?  
 a) Table jig           b) Plate jig  
 c) Template jig      d) Sandwich jig

### SECTION-B

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

- Q.11 A \_\_\_\_\_ is used for preventing the spinning back of the material.

- Q.12 A gauge for checking the diameters of circular manufactured objects, having a hole that is of either the maximum or minimum allowable diameter.
- Q.13 \_\_\_\_\_ dies can black (cut the outer form) and pierce (cut the inner form) of a shape simultaneously.
- Q.14 Name any two press tool components.
- Q.15 \_\_\_\_\_ is the amount of extra space required in the hole of the die to allow the punch to pass through to punch a hole in the material.
- Q.16 The function of stops in die is to \_\_\_\_\_.
- Q.17 \_\_\_\_\_ gauges are used for checking unthreaded holes and shafts
- Q.18 \_\_\_\_\_ is used to clamp the stock to avoid the sticking of part with a punch which can make its removal difficult.
- Q.19 A gauge that serves to determine whether the measured part is within prescribed limits of tolerance is \_\_\_\_\_.
- Q.20 Name any two materials used in making cutting dies.

### SECTION-C

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

- Q.21 What are common materials used for press tool and why?
- Q.22 Explain principle of metal cutting.
- Q.23 Write five factors which affect tool wear.
- Q.24 Explain ISI codes of milling cutters.
- Q.25 Write five methods used for maintenance of dies.
- Q.26 Explain basic principle for designing of a ring gauge.
- Q.27 Explain the working of a drawing die.