

**ALPHA COLLEGE OF ENGINEERING & TECHNOLOGY**  
**DEPARTMENT OF DIPLOMA MECHANICAL ENGINEERING**

## **FAQ OF TE**

### **INTRODUCTION**

- Q.1** Explain Concept of tool , tool design and tool engineering.
- Q.2** Explain tool Engineering department.
- Q.3** Explain types of tools, classification and features and application.
- Q.4** Explain Tool geometry with fig.
- Q.5** Give definition of tool signature. And write tool angles.
- Q.6** Explain twist drill geometry.
- Q.7** Explain function of tool engineering.
- Q.8** Explain importance to get productivity quality.

### **CUTTING TOOLS AND TOOL HOLDERS**

- Q.9** Give types of cutting tool material in manufacturing system and explain any three.
- Q.10** What is an oxide tool? Why oxide tools are used, explain it.
- Q.11** Explain coated carbides and UCON tool material.
- Q.12** Properties desired in tool materials.
- Q.13** Explain tool steel alloys and their effects.
- Q.14** Criteria for selection of tool materials.
- Q.15** Why heat treatment is necessary for tool material. Explain it.
- Q.16** Explain simple grinding machine and universal tool cutter grinder.

## **LOCATING AND CLAMPING DEVICES**

- Q.17** Explain locating and clamping principles.
- Q.18** Explain internal locators, pin locators, v- block locators, fixed stop locators.
- Q.19** Explain c- washer, screw clamp, Toggle clamp.
- Q.20** Explain Degree of freedom. Explain concept and importance.
- Q.21** Explain 3-2-1 principle of location.
- Q.22** Explain Full proofing and ejecting.
- Q.23** Explain wedge clamp and Power clamp.

## **JIGS AND FIXTURES**

- Q.24** Give definition of jigs and fixtures. Give list of general principal of jigs and fixtures design.
- Q.25** Give difference between jigs and fixtures.
- Q.26** Explain types of jigs, sketches with working and application of jigs.
- Q.27** Explain jig bushes with fig.
- Q.28** Explain types of Fixtures, Sketches with nomenclature, working and application and application of fixtures
- Q.29** Explain Broaching fixtures, Assembly fixtures.
- Q.30** Explain Welding fixtures, milling fixtures.

## **PRESS TOOLS**

- Q.31 Explain various press working operation and application with Sketches.
- Q.32 Classify press tool working with fig and list the components of press tool.
- Q.33 Classification of press tools.
- Q.34 Define and explain tonnage 1) tonnage capacity 2) shut height
- Q.35 Define center of pressure and explain its any one methods.
- Q.36 Define die clearance and Explain effects of clearance.
- Q.37 Explain methods of reduce cutting forces with fig.
- Q.38 State the function of stock stop and classify stock stop and explain any one.

## **DIES AND MOULDS**

- Q.39 Explain bending . and explain v- bending.
- Q.40 Explain edge bending. With fig.
- Q.41 Explain parts and function of bending dies.
- Q.42 What is Bend radii and explain bend allowance.
- Q.43 What is spring back and write Criteria deciding the selection of bend of radii and allowances.
- Q.44 Method to compute bending pressure.
- Q.45 Explain Drawing dies ,types with fig.