

**B. TECH. (CBCS - 2014 COURSE) SEM - VIII (PRODUCTION
ENGG.) : SUMMER - 2018**

SUBJECT: PROCESS PLANNING & TOOL DESIGN

Day : **Saturday**
Date : **02/06/2018**

S-2018-4704

Time : **02.30 PM TO 05.30 PM**
Max. Marks: 60

N.B.

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Use of non-programmable **CALCULATOR** is allowed.
- 4) Assume suitable data if necessary.

Q.1 Define and explain a Process and Process capability. What are different processes used in mechanical industries? **(10)**

OR

What is the influence of originating operation on the process planning? Discuss with reference to casting as an originating operation.

Q.2 Define the following terms, **(10)**

- a) Flatness
- b) Parallelism

How these geometrical features are measured?

OR

What is meant by surface quality? Discuss the methods used to measure surface quality.

Q.3 Define and explain, workpiece control with reference to mechanical, geometrical and dimensional control. **(10)**

OR

How the critical areas on workpiece identified? Distinguish between product critical areas and process critical areas.

Q.4 Explain in detail the relationship between process selection and machine selection. **(10)**

OR

Explain the difference between prime accuracy and producing accuracy.

Q.5 What are the three criteria for product acceptability which must be recognized when planning the process? **(10)**

OR

How the total volume that is to be produced influence the tool selection? Explain in detail.

Q.6 Prepare the detailed process plan for the component shown in figure 1. Process plan should consists of process sheet, operation description sheets containing suitable cutting speed and feed rates and process pictures. **(10)**
(machining time calculations are not required)

OR

Prepare the detailed process plan for the component shown in figure 2. Process plan should consists of process sheet, operation description sheets containing suitable cutting speed and feed rates and process pictures. (machining time calculations are not required)

P.T.O.

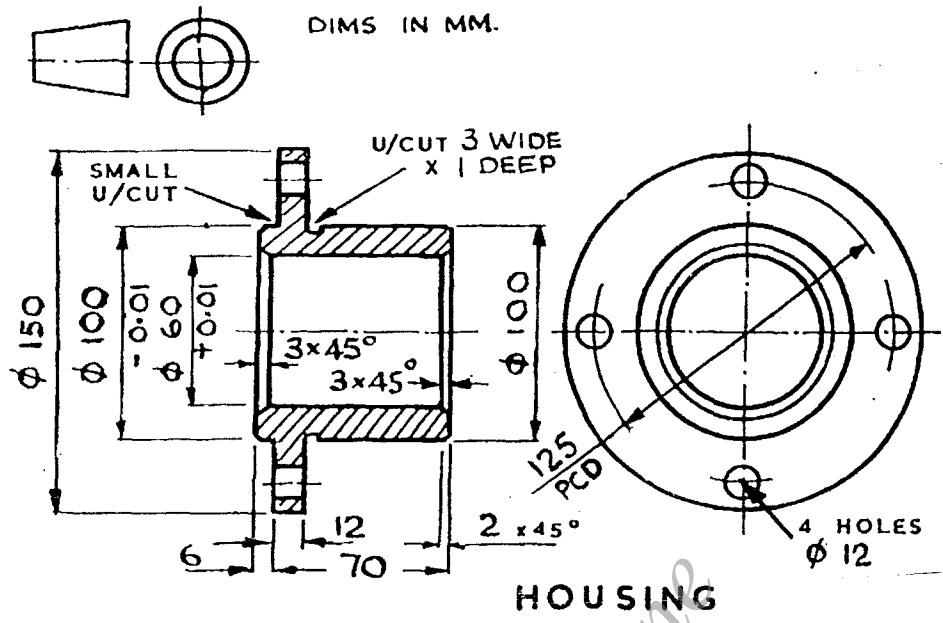


Fig. 1.

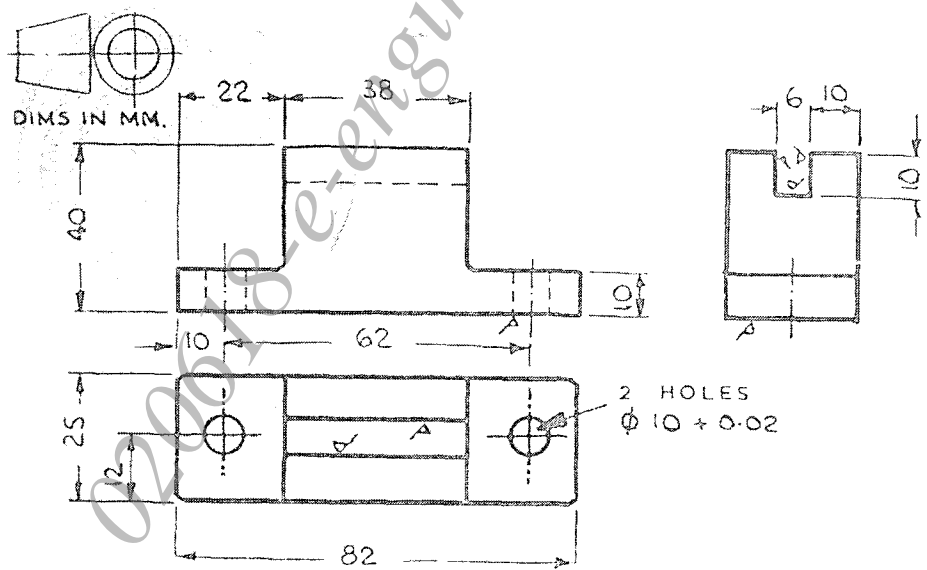


Fig. 2

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