

B. Tech. Sem - VIII (Production Engg.) (2014 COURSE) (CBCS) :
SUMMER - 2019
SUBJECT: PROCESS PLANNING & TOOL DESIGN

Day : Thursday
Date : 23/05/2019

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

S-2019-2924

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.

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- Q.1** What are the functions of Product engineering? **(10)**
OR
What are the functional surfaces? How the functional surfaces of workpiece identified?
- Q.2** Define the following terms, **(10)**
a) Straightness
b) Squareness
How these geometrical features are measured?
OR
Explain in detail the basic difference between product limit stack and process limit stack.
- Q.3** What are the variables which interfere with workpiece control? **(10)**
OR
How can supporting operations be distinguished from auxiliary operations?
- Q.4** How can the process engineer utilize the advantage of special purpose machines in the phase of unpredictable changes in the product? **(10)**
OR
What sources of information are usually available to the process engineer to assist him in machine selection?
- Q.5** In what ways the unnecessary operations can be eliminated during process planning? **(10)**
OR
Explain the process engineers' responsibility for checking product specifications.
- Q.6** Prepare the detailed process plan for the component shown in figure 1. **(10)**
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)
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.

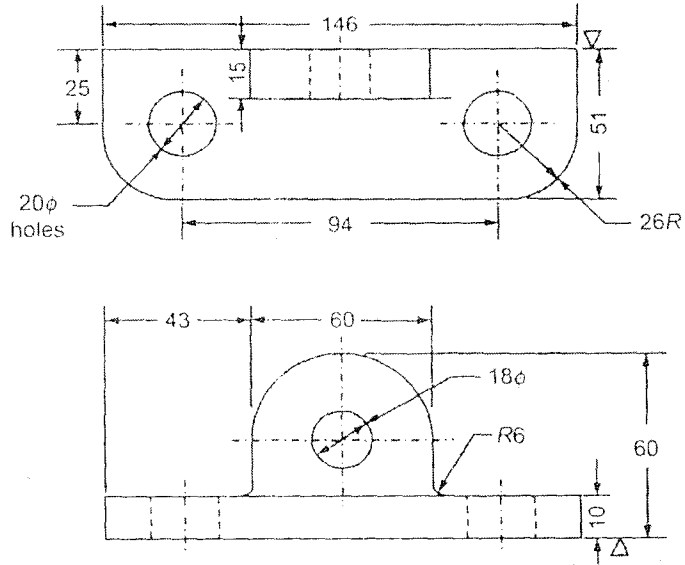


Fig. 1

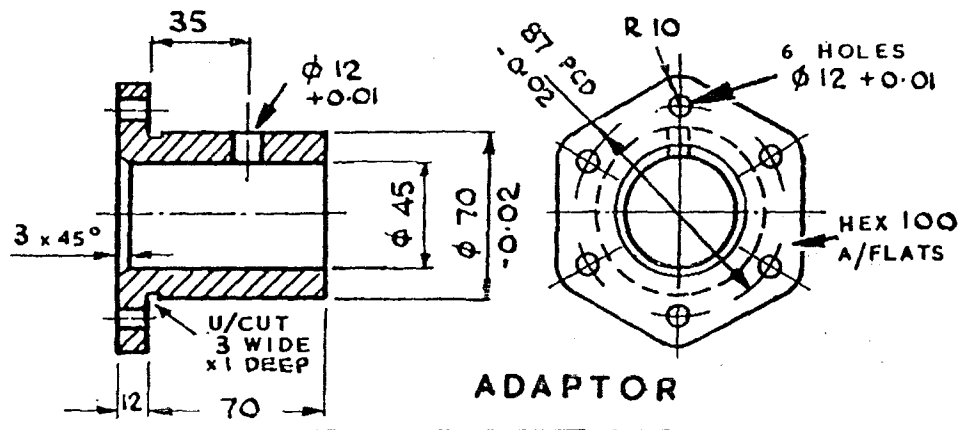


Fig. 2

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