B.Tech. SEM -VI Production 2014 Course (CBCS) : SUMMER - 2019
SUBJECT- JIG FIXTURE AND DIE DESIGN

Day: Wednesday | Time: 02.30 PM TO 06:30 PM
Date: 22/05/2019 | **S-2019-2765** | 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) Draw neat labeled diagram **WHEREVER** necessary.
5) Assume suitable data if necessary.

Q.1 Explain in detail the location of workpiece on edges. **(10)**

OR

What is redundancy of location? How to avoid the condition of redundancy, explain with typical case. **(10)**

Q.2 Design an index drilling jig for use when machining four 12 mm dia. holes in the Boss shown in fig. 1.The Boss in complete except for these holes. **(10)**

OR

Design a drill jig for use when drilling the 12 mm dia. hole in the shank of the Adaptor shown in fig.2 This hole is machined after the six holes in the flange **(10)**

Q.3 Write a detailed note on keyway cutting fixture.what special care is taken for location and clamping of components? **(10)**

OR

Explain with neat sketch the welding fixture and location and clamping of components on welding fixture. **(10)**

Q.4 Explain with neat sketch, the construction and working of blow molding process. **(10)**

OR

Describe the construction and working of injection blow molding process. Also state its merits and demerits. **(10)**

Q.5 Design an injection molding die for the component show in fig. 3. Draw assembly of mold and details. **(10)**

OR

Discuss the importance of mold cooling how the amount of cooling water be circulated is amount of cooling water to be circulated is calculated. **(10)**

Q.6 Explain the process of die casting. State its advantages and limitations. **(10)**

OR

Discuss in detail in design of pressure die casting dies. Also state its applications. **(10)**

P.T.O.

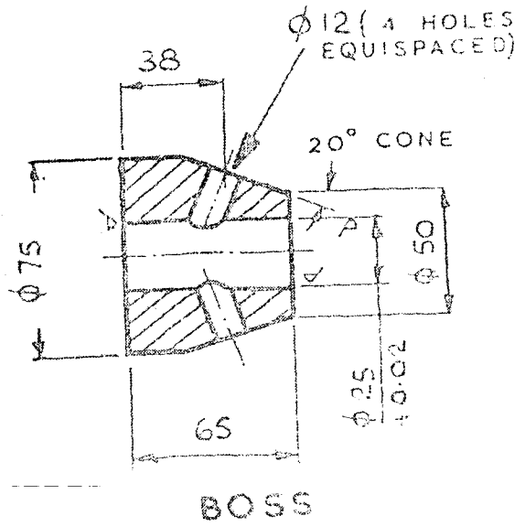

Fig. 1

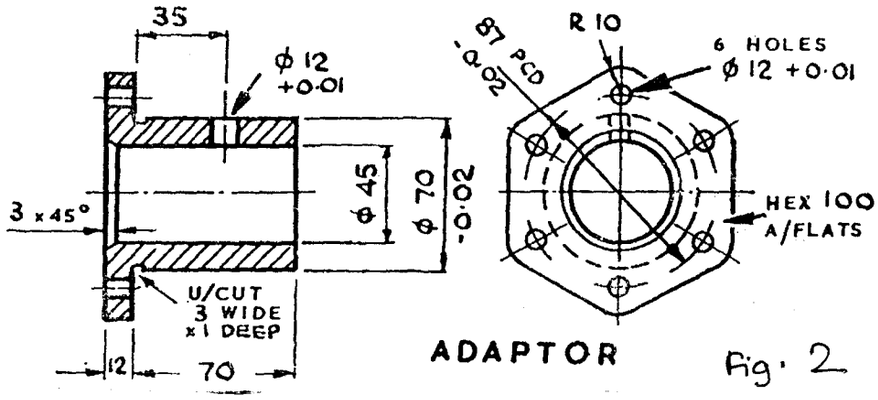

Fig. 2

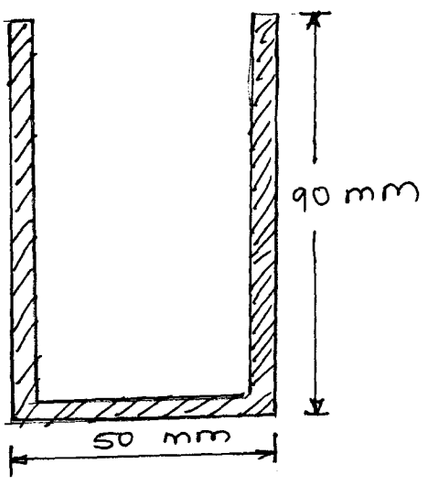

fig. 3: (Thickness 2 mm)

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