

**BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(MID SEMESTER EXAMINATION)**

**CLASS: BE
BRANCH: PRODUCTION**

**SEMESTER: VI
SESSION : SP/2020**

SUBJECT : PE6001 TOOL DESIGN

TIME: 1.5 HOURS

FULL MARKS: 25

INSTRUCTIONS:

1. The total marks of the questions are 30.
 2. Candidates may attempt for all 30 marks.
 3. In those cases where the marks obtained exceed 25 marks, the excess will be ignored.
 4. Before attempting the question paper, be sure that you have got the correct question paper.
 5. The missing data, if any, may be assumed suitably.
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- Q1 (a) Why should a jig have four feet and not three? [2]
(b) Explain different type of strap clamp with suitable diagram. [3]
- Q2 (a) What is diamond pin locator? When is it used? [2]
(b) What is quick acting clamping? Explain in brief. [3]
- Q3 (a) What do you mean by fool proofing and redundant location? [2]
(b) Explain with neat sketch the different types of mandrel used for production purposes. [3]
- Q4 (a) Brief on different work holding devices used in turning. [2]
(b) Explain gang milling fixture with neat sketch. [3]
- Q5 (a) Write short note with neat sketch on Wiring die. [2]
(b) What are the essential elements of a press tool? Label them on a neat sketch and categorized them in constructional and technological components. [3]
- Q6 (a) Differentiate between the simple die and progressive die. [2]
(b) With the help of neat diagram explain a die set which can be used for making a circular washer in each stroke of press at one workstation. [3]

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