

**DR. BABASAHEB AMBEDKAR TECHNOLOGICAL
UNIVERSITY, LONERE - RAIGAD -402 103
Mid Semester Examination - October - 2017**

Branch: M. Tech (Mechanical Production Engineering)

Sem.:- I

Subject with Subject Code:- Advanced Tool Design MMF104E

Marks: 20

Date:- 10/10/2017

Time:- 1 Hr.

Instructions:

(Marks)

Q. No.1 Attempt any one of the following (08)

a) Explain the classification of clamping with neat sketch and write the application of each.

Basic Classification

1. Plate clamps:- Slotted, swinging, edge clamp, pivoted, hinged, hook, C washer
 2. Quick action clamps:- Cam, bayonet, quarter turn, toggle
 3. Screw clamp with and without floating
 4. Multiple clamping:- Double Clamp, stacking, power clamping, magnetic clamping, pneumatic clamping, hydraulic clamping,
- From basic classification draw the figure & explanation with application each type for 2 marks total 8 marks

b) Explain in brief linear indexing and rotary indexing with neat sketch.

1. Linear Indexing with diagram and explanation
 2. Linear Indexing with diagram and explanation
- Each type for 4 marks total 8 marks

Q. No. 2 Attempt any three of the following: (12)

- a) Explain the significance of tooling in productivity.
- b) Write a short note importance of tooling in product quality.
- c) What are the constraints with respect to quality and productivity?
- d) What are the different materials used for jig and fixtures?

Any 3 write like Short note each answer for 4 marks