

Pimpri Chinchwad Education Trust's
Pimpri Chinchwad College of Engineering

Practical Assignment No. 02- Indexing Mechanism on Milling Machine

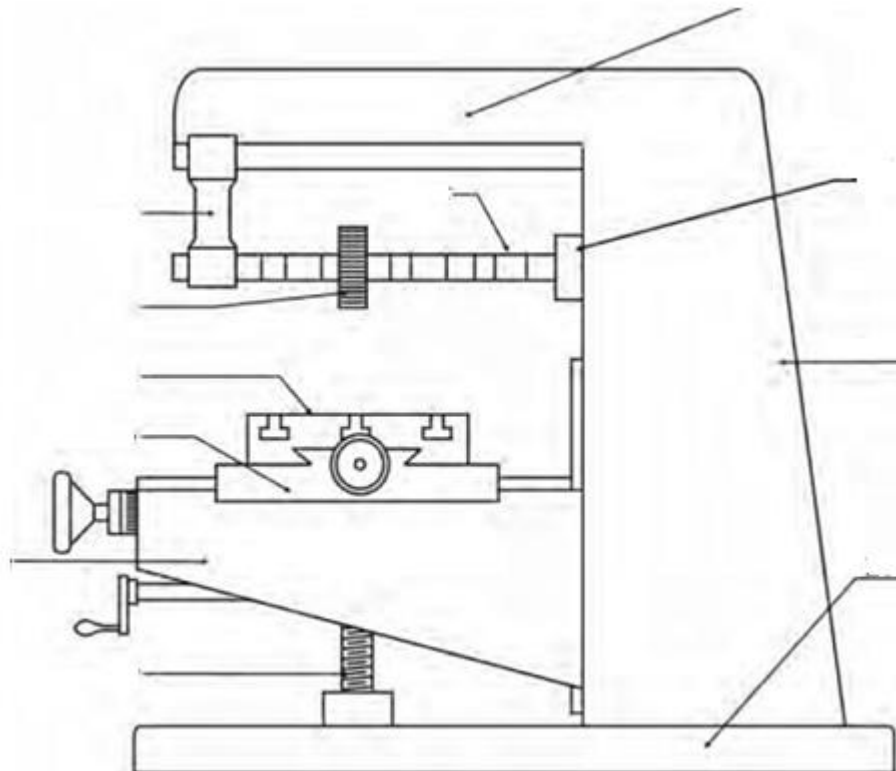
Academic Year: 2021-22

Date: 23/11/2021

Note-

- Write answers of each question in detail.
 - Draw neat sketches wherever applicable.
 - Write the assignment on A4 paper.
 - Write your Name, Division, Roll No. at top right side of first page.
 - Sign on last page of the assignment.
 - Don't copy the write-up.
 - Scan the assignment and upload it on Google Classroom.
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- **CO 1:** Select appropriate machining parameters and handle machines.
 - **CO 3:** Analyze product and select appropriate machining process, tooling and process parameters.

Q. 1. Identify the name of machine and label all of its parts given below (Draw diagram on A4 page)-



Q. 2. Enlist different operations performed on Milling Machine and describe up cut milling and down cut milling.

Q. 3. A milling machine has the following two index plates supplied along with the indexing head:

Plate 1 : 15, 16, 17, 18, 19, 20, hole circles.

Plate 2 : 21, 23, 27, 29, 31, 33, hole circles.

It is proposed to mill a spur gear of 28 teeth using a simple indexing method. Which type of indexing is required? Which one of the following combinations of index plates and the number of revolutions is correct?

Q. 4. Which indexing mechanism can be used for 69 divisions of workpiece circumference by indexing method? Refer the plates mentioned in the example 3.

Q. 5. Which indexing mechanism is required to cut 30 teeth on a spur gear blank? Refer the plates mentioned in the example 3.