Maulana Azad National Institute of Technology, Bhopal **Department of Civil Engineering** Mini Test-Dec. 2020

Class: B.Tech, I Semester **Class: Section F Subject: Engineering Mechanics Subject code: CE125 Total Questions: 03** Max. Marks: 10

Note:

- 1. All questions are compulsory. Assume any missing data suitably.
- Write Name, Sch. No., Roll No. and sign on each page of answer book.
 Answer sheet name should be your roll no.
- 4. Upload answer sheets (in PDF Form) on MS Teams and also email to ce125sectionf2020@gmail.com within 15 min. after completion of exam.

| S.No. | Questions | Marks |
|-------|---|-------|
| 1. | A 10 kg ring is supported by a smooth surface at E and a wire AB. A body of mass 3 kg is fixed at D as shown in the figure below. What is the tension in the wire AB? Also find angle α. The point A is directly above the point O. | 04 |
| 2. | Determine magnitude and direction of minimum force P, so that resultant of system is passing through point 'D'. | 04 |
| 3. | Determine centroid of shaded area with respect to the given axis. | 02 |