**Digital Universal Testing machine 200 KN**

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| **Booking Details** | **Name of the equipment:** Digital Universal Testing machine 200 KN**Make & Model:**EIE Instruments. & UTM -2011**I-Stem Registration ID-** 3220835 **Category of Instrument**Characterization and Testing **Types of Analysis / Testing**Compression, tension etc**Application:** It has to be planned based on the need**Description of Instrument**This machine is designed to perform compression, tension & flexure tests. |
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| **Book through I-STEM:**<https://www.istem.gov.in/>**Slot Booking Link**[I-STEM Slot Booking link for External User](https://www.istem.gov.in/equipment-info/20835/Digital-Universal-Testing-Machine-200-kN-Capacity) | **Booking available for**Internal and External Both**Requisition form for**[Internals](https://randc.nitc.ac.in/pdf/instruments/civil/CED-REQUISITION_FORM_Internal.pdf)[Externals](https://randc.nitc.ac.in/pdf/instruments/civil/CED-REQUISITION_FORM_Internal.pdf) |

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**Contact Details**

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**Features, Working Principle and Specifications**

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| **Features of the equipment*** Digital Universal Testing Machine (UTM) capable of performing **tension, compression, and bending tests**.
* User-friendly digital interface for real-time display of load, displacement, and test status.
* Rigid two-column frame design suitable for accurate load application and specimen alignment.
* Suitable for both **academic laboratory experiments** and **advanced research**.
* Versatile grips and attachments for different specimen types.
 | **Unique features/Measurement capabilities, if any*** Capable of testing **steel bars (tension test), concrete specimens (compression), and concrete beams (bending)** using interchangeable fixtures.
* Digital load measurement with high precision and repeatability.
* Supports automatic data logging and report generation for analysis and documentation.
* Provides load vs. displacement curve for structural interpretation.
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| **Instrument Technical Description and Major Specifications (This Specifications Limited to Major 5)*** **Measurement / Sample Specifications:**

Suitable for steel bars, and RCC beams.* **Maximum Load Capacity:**

200 kN (20 Tonne).* **Machine Type:**

Fully Digital Universal Testing Machine with hydraulic loading and electronic control.* **Make & Origin:**

Make: EIE Instruments.**Type of Sample Required for Analysis / Testing (Quantity, Pre-Preparation, State etc.) Guidelines for Sample Submission – User Instructions** | **Measurement/Sample specifications:** * **Steel bars** (typically 8 mm to 16mm dia) for tensile testing.
* **Concrete beams** for flexural/bending tests.
* Tests performed as per **IS code standards** with support for custom research setups.
* Load capacity up to **200 kN**, suitable for small to medium-sized structural components.
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| * Steel reinforcement bars, concrete cubes/cylinders, and beam specimens.
* Samples should ideally conform to **standard IS code sizes**, or be pre-approved for research-specific dimensions.

**Quantity:** Typically, **3 specimens** per test type for statistical reliability.**User Charges Rs. (GST Extra)** |

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| **Internal** | **External Academic Institutes** | **National R&D Lab** | **Industry** |
| 500/- per hour | 1500/- per hour | 2500/- per hour | 3000/- per hour |