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Ref. No..213

Date...21/02/26

URGENT NOTICE

INVITATION FOR QUOTATION

Sealed quotations are invited from the reputed firms/authorized distributors/vendors for the supply of **Dynamics of Machinery Lab Equipment** for the Mechanical Engineering Department at Katihar Engineering College, Katihar. The item wise detailed list is enclosed as Annexure-1. Quotations should be submitted by 24 February 2025 till 5:00 PM in a sealed envelope scribed with "**Quotation for Dynamics of Machinery Lab Equipment** " addressed to the Principal, Katihar Engineering College, Katihar, Hirdayganj, Hajipur, Katihar- 854 109, Bihar. Quotation can also be sent to principal@keck.ac.in within the same deadline, clearly mentioning the subject as "**Quotation for Dynamics of Machinery Lab Equipment** ". The interested party should quote their GST registration number and all the rates should be inclusive of GST and delivery charges.

Ranjan 21/02/26

Principal
KEC, Katihar

Annexture 1

S.No.	Name of Equipment	Specification	Quantity
1	Slip and creep measurement apparatus	• Slip & creep measurement apparatus • The set-up should include a variable speed, 1 HP motor, 1500 RPM Motor and Driving & driven pulleys of equal diameters. • Brake drum along with spring balance and rope arrangement should be provided to load the system. • Flat belts of fixed length of two different belt materials with Belt tightening arrangement should be provided. • 2 Channel digital speed indicator with switch to change the channel. • The whole set-up should be well designed and arranged on a rigid structure painted with industrial PU Paint. • Operating/instruction manual and sample calculations should be provided along with the tender documents. • Equipments has to be demonstrated at college site, results should be repeatable within ±5% of the sample calculations provided.	1
2	Cam analysis machine	• **Cam Analysis Machine** Three cams i.e. Tangent, Eccentric, Circular Arc, made of hardened alloy – steel with Cam shaft should be driven by Variable speed FHP DC Motor(Power 250Watt and speed 60 to 670rpm) with speed controlling unit. (Cam profiler should be provided along with the tender documents for he technical evolution). • Three Followers i.e. Roller, Knife edge, Mushroom should be made hardened alloy – steel. • Three interchangeable return spring has stiffness hard :- 5026N/m, medium 2601N/m, Soft 613N/m and spring preloaded • Transparent protective cover to be provided for the safe operation. • Weights of 500 gm, 300 gm, 200 gm & 100 gm and Dial Gauge of Baker & Mercer/Standard Make should be provided. • Digital RPM indicator with proximity sensor (non contact type should be provided for RPM measurement. • The whole set-up should be well designed and arranged on a rigid structure painted with industrial PU Paint.	1

3	Epicyclic gear train and torque holding apparatus	**EPICYLIC GEAR TRAIN APPARATUS (WITH DIGITAL RPM INDICATOR) :-** • Internal Type Epicyclic Gear Train, Compact gear train with transparent housing should be driven by 1HP motor with speed controlling unit. • Output torque and holding torque should be measured by Rope break type dynamometer and load measurement should be done by spring balance. • Digital RPM Indicator with proximity switch, Voltmeter and Ammeter should be provided. • The whole set-up should be well designed and arranged on a rigid structure painted with industrial PU Paint. • Operating/instruction manual and sample calculations should be provided along with the tender documents. • Equipments has to be demonstrated at college site, results should be repeatable within ±5% of the sample calculations provided.	1
4	Motorized gyroscope	• **MOTORISED GYROSCOPE:-** • Disc of dia. 300 mm, Thickness: 10 mm, precisely balanced which can be rotated in 3 mutually perpendicular axis should be made of stainless steel 304 Grade and Driven by Variable speed FHP motor with speed controlling unit. • Weights of 2 kg, 1 kg, 500 gms and Electronic Stop Watch should be provided. • Non-contact type Digital RPM indicator with proximity sensor for RPM measurement. • The whole set-up should be well designed and arranged on a rigid structure painted with industrial PU Paint. • Operating/instruction manual and sample calculations should be provided along with the tender documents. • Equipments has to be demonstrated at college site, results should be repeatable within ±5% of the sample calculations provided.	1

5	Motorized governor apparatus	• Motorized Governor Apparatus :- Spindle : Material Stainless Steel • Governor Mechanism : Four different types of governor mechanism with spring and weights. 1. Watt Governor 2. Porter Governor 3. Hartnell Governor 4. Proell Governor • Drive : Variable speed FHP Motor with speed Controlling unit • Control Panel comprises of : RPM measurement : Digital RPM indicator with proximity sensor (non contact type), Standard make on-off switch, mains indicator & fuse etc. • Operating/instruction manual and sample calculations should be provided along with the tender documents. • Equipments has to be demonstrated at college site, results should be repeatable within ±5% of the sample calculations provided.	1
6	Static and dynamic balancing apparatus	Static & Dynamic Balancing Apparatus. • Drive Motor : FHP Motor, variable speed, with speed controller. • Balancing weight: 4 Nos. of Stainless Steel with different sized eccentric mass for varying unbalance. • Rotating Shaft: Material Stainless Steel • Control panel comprises of : Variac, Standard make on-off switch, mains indicator & fuse etc. • Operating/instruction manual and sample calculations should be provided along with the tender documents. • Equipments has to be demonstrated at college site, results should be repeatable within ±5% of the sample calculations provided.	1
7	Bar pendulum or compound pendulum		1