



राजीव गाँधी पेट्रोलियम प्रौद्योगिकी संस्थान
(संसद के अधिनियम के अधीन स्थापित राष्ट्रीय महत्व का एक संस्थान)
Rajiv Gandhi Institute of Petroleum Technology
(An Institution of National Importance established under an Act of Parliament)
Jais, Amethi- 229304, UP, India. Website: www.rgipt.ac.in

QUOTATION ENQUIRY

Ref. No.: RGIPT/JAIS/PEGE/ME-UG/2024-25/03

Dated: 8.11.2024

Last Date and time for the quote: 18.11.2024 till 17:00 hours in the Office of the Department of Department of Petroleum Engineering & Geoengineering, 5th Floor, AB-1, RGIPT, Jais, UP-229304.

Dear Sir/Madam,

Please submit your lowest quotation for supplying the under mentioned item. Quotation must reach us before the date marked above and should contain the following information:

1. Clearly mention the date of validity of offer.
2. Kindly clearly mention your E-mail ID and Mobile number.
3. Kindly mention appropriate GST % as applicable for supplying of Goods & Services.
4. Please mention your GST registration number and PAN in the quotation.
5. Conditions of supply and terms of payment shall be clearly mentioned in the quotation.

Quotation must be sent in sealed envelope with word "QUOTATION for "Fluid Machinery Lab" and addressed to Office of the Department of Petroleum Engineering & Geoengineering, 5th Floor, AB-1, RGIPT, Jais- 229304 (UP). Our reference number and last date as given above should be clearly marked over it. (Technical Specification attached as annexure-1

List of Equipment's

Sl no.	Equipment Name	Qty.	Sl no.	Equipment Name	Qty.
1	Universal Force Table Apparatus	1	10	Mild Steel Bending Test on Simply Supported Beam	1
2	Coplanar Parallel Forces Apparatus	1	11	Wheel and Differential Axle Apparatus	1
3	Simple Plane Roof Truss Apparatus	1	12	Support Reaction of Beam Apparatus	1
4	Fly Wheel Apparatus with Weight (200mm Dia)	1	13	Equilibrium of Non-Concurrent Forces Apparatus	1
5	Fletcher's Trolley	1	14	Screw Jack Apparatus	1
6	Triangle Law & Polygon of Forces Apparatus with Weights	1	15	Worm and Worm Wheel Apparatus with Single Start with Weight	1
7	Parallel Forces Apparatus	1	16	Worm and Worm Wheel Apparatus with Double Start with Weight	1
8	Young's Modulus Apparatus	1	17	Worm and Worm Wheel Apparatus with Triple Start with Weight	1
9	Jib Crane Apparatus	1	18	Impact-Tests (Izod/Charpy)	1

Note:

- All charges (packing, freight, installation, and commissioning) including GST should be mentioned in detail.
- Company must provide a copy of PAN and GST Registration, and Cancelled Cheque.

Prof. Satish Kumar Sinha
Chairman, DPC
Department of Petroleum Engineering & Geoengineering,
RGIPT, Jais

Technical Specification

1. Universal Force Table Apparatus

Qty. 1

Specifications
For experimentally verifying the laws of triangle, parallelogram and polygon of forces. Comprising of a circular 40 cm. diameter aluminium disc, graduated into 360 degrees. Complete with levelling screws, clamping device to fix the table at any desired angle, five sliding clamp pulleys, central ring, string and five sets of iron nickelled slotted weights, each set containing nine slotted weights and one hanger of 50 gms each.

2. Coplanar Parallel Forces Apparatus

Qty.1

Specifications
<ul style="list-style-type: none">• Consisting of two compression tubular beams.• Thrust type 10 Kg tubular spring balances fixed on wooden polished board mounted base• Completed with stirrups, hooks and two 1 Kg weights.

3. Simple Plane Roof Truss Apparatus

Qty.1

Specifications	
Material	Mild Steel
Weight	1 Kg
One hanger weight	20 Gram
Length	1200 mm
Accessories:- • Set of Different Weights • Pans and spring balance	
This equipment is part of a range designed to both demonstrate and experimentally confirm basic engineering principles. Each piece of apparatus is self-contained and compact. A complete instruction manual is provided describing the apparatus, its application, experimental procedure and typical types.	

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4. Fly Wheel Apparatus with Weight (200mm Dia)

Qty.1

Specifications
Comprising of carefully machined and balanced cast iron wheel and steel spindle is supported on ball bearings in strong iron brackets. The wheel is smoothly painted black and is marked with a line. A pointer is fixed to one of the brackets. Diametric hole is drilled in the shaft to take a pin and cord. The base is provided with holes so that the apparatus can be fixed to wall. Complete with cord, hook & Weights.

5. Fletcher's Trolley

Qty. 1

Specifications
All metal, capable of being assembled and dismantled easily. A large metal trolley with removable cylindrical weights is fitted with wheels which run with very little Friction on a track of two steel rods 150 cm long. The rail rods are held in heavy clamps which are fitted in two vertical rods, mounted on cast iron feet. The steel vibrator is fitted to one of the vertical rods and frictionless pulley to the other. The unit is capable to verify the law under different conditions, Complete with cord, scale pan, brush, and ink.

6. Triangle Law & Polygon of Forces Apparatus with Weights

Qty. 1

Specifications
Having a wooden board made of wood and fixed within a wooden slotted frame of overall size 75cm x 70cm. Six frictionless pulleys are adjustable in the slots of the frame and frame is provided with suitable arrangement for fixing it to a wall. The unit is complete with four hangers and 24 irons nickelled slotted weights and four hangers of 50gms each.

7. Parallel Forces Apparatus

Qty. 1

Specifications
The apparatus comprising of two dial type weight gauges of 10 kg, one straight wooden beams of 100 cm, a wooden platform for the support of the dial gauges, three weight hangers for hanging the weights on the wooden beams, three weights weighing. The beam is provided with angular slots on them in order to place the hanger in it, the distance between each groove is 5 cm. The weight of each hanger will be neglected. The whole apparatus is well designed & good finishing.

8. Young's Modulus Apparatus

Qty. 1

Specifications

The instrument consists of two iron frames connected by a link. The frames are fitted with self-centring chucks. An accurately graduated micrometre screw to read 0.01mm is fitted on a frame. One end of a sensitive spirit level is pivoted to one of the frame; the other end on the points of a micrometre screw is fitted in other frame. Complete with iron chucks cast iron ceiling attachment and torsion weight but velvet case.

Product Dimensions:

406.4 x 406.4 x 406.4 mm

Product Height: 406.4 mm

Product Width: 406.4 mm

Size Along Diagonal/Diameter: 381 mm

9. Jib Crane Apparatus

Qty. 1

Specifications

Consisting of tubular compression balance, pivoted about an axis fitted to the base. The tie chain has an adjusted angle bracket and fitted with a 10 kg extension balance. The whole apparatus is mounted on a wooden base with 1.2 meter jib. The apparatus comprising of a hollow aluminium tie rod casted partially into a cast iron Bar to form a compression balance, and an upper right bar steel made. The whole apparatus is mounted on a wooden base which is further fixed on a cast iron frame. The open ends of the steel and the aluminium bars are connected together via extinction balance with chain and hook. The hook can be adjusted according to the load to be lifted by the apparatus. The whole apparatus is well designed and neatly painted.

10. Mild Steel Bending Test on Simply Supported Beam

Qty.1

Specifications

Apparatus consists of a M.S. beam, which is supported on two supports. Apparatus is centrally loaded. Actual bending can be measured by the help of a dial gauge at the point of loading. Apparatus is supplied complete with weights and supporting stand.

Dimension of Beam:

Length x Breadth x Thickness of beam = 1000 mm x 25 mm x 3 mm

Accessories:

- Dial Gauge.
- Magnetic base.
- Hooks for hanging weights.
- Set of weights.

11. Wheel and Differential Axle Apparatus

Qty.1

Specifications

<p>The wheel is of 30cm & 20cm diameter and axles are in steps of 15 & 7.5cm and the axle is in two steps of 10 & 5 cm respectively reducing diameter giving a ratio 1: 2: 4. A steel axle passes through the centre of the wheel supported on ball bearings in iron brackets. The base is provided with holes to fix the apparatus on wall. Complete with snatch pulley block, cord and hooks but with weights.</p>

Accessories :

- Set of weight.

12. Support Reaction of Beam Apparatus

Qty. 1

Specifications

<p>The apparatus comprising of two dial type weight gauges of 10 kg, one straight wooden beams of 100 cm, a wooden platform for the support of the dial gauges, three weight hangers for hanging the weights on the wooden beams, three weights weighing. The beam is provided with angular slots on them in order to place the hanger in it, the distance between each groove is 5 cm. The weight of each hanger will be neglected. The whole apparatus is well designed & good finishing.</p>

13. Equilibrium of Non-Concurrent Forces Apparatus

Qty. 1

Specifications

<p>It consists of wooden board of 50 x 60 cm, fitted with metal guides on all four edges, rectangular sheet of hard board, two champ pulleys, cord, one three leaf linkage lever with hooks and three irons nickelled slotted weights set each set having four weights and one hanger 50 gm each..</p>

14. Screw Jack Apparatus

Qty. 1

Specifications

All metallic construction accurately machine cut screw with a pitch of 5mm carrying a double flanged turn table of about 200mm diameter. Fitted on a heavy cast iron base and complete with two adjustable pulley, cord and hooks. Weights are not included. This machine is used for lifting heavy load with the application of a smaller effort. Basically screw jacks are mechanical devices consisting of a heavy bottom metallic base or stand through which a screw mechanism is allowed to slide up and down through a circular path over a central axis. The load that is to be lifted is placed over the top "head" of the screw mechanism. The lifting movement or operation is made functional by applying an external physical force (using human hands) through a radial motion.

15. Worm and Worm Wheel Apparatus with Single Start with Weight

Qty. 1

Specifications

An all metallic self-contained apparatus useful for demonstrating the efficiency of worm and wheel and also the principle of works. Consisting of machine cut worm gear of 25 cm diameter, carrying a metal drum on 12 cm diameter, and machine cut worm on steel spindle carrying a 12 cm diameter pulley. The whole arrangement is fixed on heavy cast iron bracket capable to be a wall. Complete with effort pulley, string and hooks but with weights.

16. Worm and Worm Wheel Apparatus with Double Start with Weight

Qty. 1

Specifications

An all metallic self-contained apparatus useful for demonstrating the efficiency of worm and wheel and also the principle of works. Consisting of machine cut worm gear of 25 cm diameter, carrying a metal drum on 12 cm diameter, and machine cut worm on steel spindle carrying a 12 cm diameter pulley. The whole arrangement is fixed on heavy cast iron bracket capable to be a wall. Complete with effort pulley, string and hooks but with weights.

17. Worm and Worm Wheel Apparatus with Triple Start with Weight

Qty. 1

Specifications

An all metallic self-contained apparatus useful for demonstrating the efficiency of worm and wheel and also the principle of works. Consisting of machine cut worm gear of 25 cm diameter, carrying a metal drum on 12 cm diameter, and machine cut worm on steel spindle carrying a 12 cm diameter pulley. The whole arrangement is fixed on heavy cast iron bracket capable to be a wall. Complete with effort pulley, string and hooks but with weights.

18. Impact-Tests (Izod/Charpy)

Qty. 1

Specifications

The machine strictly conforms to the relevant IS Standards and is designed for conducting IZOD & CHARPY TESTS on metals and alloys. The machine is supplied complete with strikers for conducting IZOD and CHARPY TESTS The Impact energy is observed on a mechanical against a pointer, Least Count 0.2 Kgm.
