



**GOVERNMENT ENGINEERING COLLEGE, DAMAN**  
**DEPARTMENT OF MECHANICAL ENGINEERING**  
**DYNAMICS OF MACHINES LABORATORY**

**STATIC AND DYNAMIC BALANCING APPARATUS**



**Basic Details: -**

DC Motor with controller	:	1/8 HP 6000 rpm
Minimum radial distance	:	25 mm
Maximum radial distance	:	65 mm
Length of shaft	:	300 mm
Minimum mr Value	:	1125 gm-mm
Maximum mr value	:	4030 gm-mm
No. of Discs	:	4 Nos.
No. of Weights	:	8 Nos.
Slotted disc	:	4 Nos.



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**VIB LAB APPARATUS**



**Basic Details: -**

Net Dimensions	:	1400 x 600 x 1600 mm
No. of long steel Beam	:	3 nos.
No. of Shaft	:	3 nos.
No. of Spring	:	2 Nos
D.C. Motor	:	1 Nos.



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**WHIRLING OF SHAFT APPARATUS**



**Basic Details: -**

Motor with controller	:	1/6 HP 6000 rpm
No. of Sleeve Weights	:	4 Nos.
No. of Shaft	:	3 Nos.
Shaft End Configurations	:	Fixed and Free Ends



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**CAM ANALYSIS APPARATUS**



**Basic Details: -**

PMDC Motor with controller	:	¼ HP 1500 rpm
No. of CAMS and Followers	:	3 Each
No. of Spring	:	2 Nos.
No. of Masses	:	2 Nos.
Dial Indicator	:	0-10 mm



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**MOTORIZED GYROSCOPE**



**Basic Details: -**

Mass of Rotor (m)	:	5.3 Kg
Rotor Diameter (D)	:	285 mm
Rotor Thickness	:	10 mm
Distance of bolt of weight pan from disc center (L)	:	20.1 cm
Motor	:	AC/DC, Fractional HP, Single Phase, 6000 rpm.



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**UNIVERSAL GOVERNOR APPARATUS**



**Basic Details: -**

- Governor Mechanism : Four different types of governor mechanism with spring and weights.
1. Watt Governor
  2. Porter Governor
  3. Hartnell Governor
  4. Proell Govern
- Drive : Variable speed FHP Motor with speed controlling unit
- Spindle material : Stainless Steel
- RPM measurement : Digital RPM indicator with proximity sensor (non contact type)