



**GOVERNMENT POLYTECHNIC, NABARANGAPUR**  
**DEPARTMENT OF MECHANICAL ENGINEERING**

<b>Discipline:</b> <b>MECHANICAL ENGG</b>	<b>Semester:</b> 4 <sup>th</sup>	<b>Name of the Teaching Faculty:</b>
<b>Subject:</b> HM&IFP LAB	<b>No. of days/per week class allotted:</b> 6	<b>Semester From date:</b> _____ <b>To Date:</b> _____ <b>No. of Weeks:</b> 15
<b>Week</b>	<b>Class Day</b>	<b>Theory/Practical Topics</b>
1 <sup>ST</sup>	1-3	To study the operation of a Kaplan turbine
	4-6	To study the operation of a Kaplan turbine
2 <sup>ND</sup>	1-3	To study the operation of a Kaplan turbine
	4-6	Experiment on model of francis turbine
3 <sup>RD</sup>	1-3	Experiment on model of francis turbine
	4-6	Experiment on model of francis turbine
4 <sup>TH</sup>	1-3	To obtain efficiency of a centrifugal pump
	4-6	To obtain efficiency of a centrifugal pump
5 <sup>TH</sup>	1-3	To obtain efficiency of a centrifugal pump
	4-6	To study operation of pelton turbine
6 <sup>TH</sup>	1-3	To study operation of pelton turbine
	4-6	To study operation of pelton turbine
7 <sup>TH</sup>	1-3	Direct operation of single & double acting pneumatic cylinder
	4-6	Direct operation of single & double acting pneumatic cylinder
8 <sup>TH</sup>	1-3	Direct operation of single & double acting pneumatic cylinder
	4-6	Direct operation of hydraulic motor

9 <sup>TH</sup>	1-3	Direct operation of hydraulic motor
	4-6	Direct operation of hydraulic motor
10 <sup>TH</sup>	1-3	Operating double acting pneumatic cylinder with quick exhaust valve
	4-6	Operating double acting pneumatic cylinder with quick exhaust valve
11 <sup>TH</sup>	1-3	Operating double acting pneumatic cylinder with quick exhaust valve
	4-6	Direct operation of single & double acting hydraulic cylinder
12 <sup>TH</sup>	1-3	Direct operation of single & double acting hydraulic cylinder
	4-6	Direct operation of single & double acting hydraulic cylinder
13 <sup>TH</sup>	1-3	Direct operation of single & double acting hydraulic cylinder
	4-6	Speed control of double acting hydraulic cylinder metering in & out
14 <sup>TH</sup>	1-3	Speed control of double acting hydraulic cylinder metering in & out
	4-6	Speed control of double acting hydraulic cylinder metering in & out
15 <sup>TH</sup>	1-3	Speed control of double acting hydraulic cylinder metering in & out
	4-6	Speed control of double acting hydraulic cylinder metering in & out

Sign. Of Faculty concerned

Sign. Of HOD/IC

Principal