Year & Sem: E1SS	Lab Code: CH1801	Lab Name: **Mechanical Unit Operations**	No. of Credits: 2	L	T&PS	P
				0	0	2

Experiment-I: To determine the time of grinding in a ball mill for producing a product with 80 % passing a given screen.
Major equipment - Ball mill Apparatus, Sieve shaker, Different sizes of sieves,
Weighing balance.

Experiment-II: To verify the laws of crushing using any size reduction equipment like crushing rolls or vibrating mills and to find out the working index of the material.
Major equipment – Jaw Crusher, Sieve shaker, Different sizes of sieves, Weighing Balance, Energy meter.

Experiment-III: To find the effectiveness of hand screening and vibrating screen of a given sample.
Major equipment - Vibrating Sieve shaker, Different sizes of sieves, Weighing Balance.

Experiment-IV: To achieve beneficiation of a ore using froth flotation technique.
Major equipment - Froth flotation cell

Experiment-V: . To obtain batch sedimentation data and to calculate the minimum thickner area under given conditions.
Major equipment- Sedimentation apparatus

Experiment-VI: To determine the specific cake resistance and filter medium resistance of a slurry in plate and frame filter press.
Major equipment - Plate and frame filter press.

Experiment-VII: To separate a mixture of particles by Jigging.
Major equipment - Jigging apparatus

Experiment-VIII: To calculate separation efficiency of particles in a mixture using cyclone separator.
Major equipment - Cyclone separator

Experiment-IX: . To determine reduction ratio of a given sample in a pulverizer.
Major equipment - Pulverizer

Experiment-X: To Verify Stoke's law.
Major equipment – Stoke's law apparatus

Experiment-XI: To determine reduction ratio of a given sample in .a grinder Major equipment - Grinder

References/ Books:

1.