

# LESSON PLAN

DEPARTMENT OF MECHANICAL ENGINEERING, ITT, CHOUDWAR

SUBJECT: MECHANICAL ENGG LAB-II

Periods: 6 per week for a group No. of weeks: 15

SEMESTER: 4th

NAME OF FACULTY: MANORANJAN PANDA, Instructor (Mech)

| Class Day (2hrs./day) | Week             | Theory / Practical Topics  |
|-----------------------|------------------|--|
| 1 <sup>st</sup>       | 1st              | 1. Study of 2-S petrol & diesel engine models                                |
| 2 <sup>nd</sup>       |                  | Study of 2-S petrol & diesel engine models                                   |
| 1 <sup>st</sup>       | 2 <sup>nd</sup>  | Study of 2-S petrol & diesel engine models                                   |
| 2 <sup>nd</sup>       |                  | 2. Study of 4-S petrol & diesel engine models                                |
| 1 <sup>st</sup>       | 3 <sup>rd</sup>  | Study of 4-S petrol & diesel engine models                                   |
| 2 <sup>nd</sup>       |                  | Study of 4-S petrol & diesel engine models                                   |
| 1 <sup>st</sup>       | 4 <sup>th</sup>  | 3. Determine the brake thermal efficiency of single cylinder petrol engine.  |
| 2 <sup>nd</sup>       |                  | Determine the brake thermal efficiency of single cylinder petrol engine.     |
| 1 <sup>st</sup>       | 5 <sup>th</sup>  | Determine the brake thermal efficiency of single cylinder petrol engine.     |
| 2 <sup>nd</sup>       |                  | 4. Determine the brake thermal efficiency of single cylinder diesel engine.  |
| 1 <sup>st</sup>       | 6 <sup>th</sup>  | Determine the brake thermal efficiency of single cylinder diesel engine.     |
| 2 <sup>nd</sup>       |                  | Determine the brake thermal efficiency of single cylinder diesel engine.     |
| 1 <sup>st</sup>       | 7 <sup>th</sup>  | 5. Determine the B.H.P, I.H.P BSFC of a multi cylinder engine by Morse test. |
| 2 <sup>nd</sup>       |                  | Determine the B.H.P, I.H.P BSFC of a multi cylinder engine by Morse test.    |
| 1 <sup>st</sup>       | 8 <sup>th</sup>  | Determine the B.H.P, I.H.P BSFC of a multi cylinder engine by Morse test.    |
| 2 <sup>nd</sup>       |                  | Study of pressure measuring devices (manometer, Bourdon tube pressure gauge) |
| 1 <sup>st</sup>       | 9 <sup>th</sup>  | Study of pressure measuring devices (manometer, Bourdon tube pressure gauge) |
| 2 <sup>nd</sup>       |                  | Study of pressure measuring devices (manometer, Bourdon tube pressure gauge) |
| 1 <sup>st</sup>       | 10 <sup>th</sup> | 7. Verification of Bernoulli's theorem .                                     |
| 2 <sup>nd</sup>       |                  | Verification of Bernoulli's theorem.   |
| 1 <sup>st</sup>       | 11 <sup>th</sup> | Verification of Bernoulli's theorem .  |
| 2 <sup>nd</sup>       |                  | 8. Determination of Cd from venturimeter                                     |
| 1 <sup>st</sup>       | 12 <sup>th</sup> | Determination of Cd from venturimeter  |
| 2 <sup>nd</sup>       |                  | Determination of Cd from venturimeter  |
| 1 <sup>st</sup>       | 13 <sup>th</sup> | 9. Determination of Cc, Cv, Cd from orifice meter                            |
| 2 <sup>nd</sup>       |                  | Determination of Cc, Cv, Cd from orifice meter                               |
| 1 <sup>st</sup>       | 14 <sup>th</sup> | Determination of Cc, Cv, Cd from orifice meter                               |
| 2 <sup>nd</sup>       |                  | 10. Determine the mechanical efficiency of an air Compressor.                |
| 1 <sup>st</sup>       | 15 <sup>th</sup> | Determine the mechanical efficiency of an air Compressor..                   |
| 2 <sup>nd</sup>       |                  | Determine the mechanical efficiency of an air Compressor.                    |



Sign. of faculty