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|--------------------------------------|--|---|---|---|-----|
| Regulation<br>GRBT-20                | Godavari Institute of Engineering & Technology<br>(Autonomous)   | I B.Tech. I Sem<br>(1 <sup>st</sup> Semester) |   |   |     |
| Course Code                          | <b>Basic Engineering Workshop</b><br>(Common to CE, ME, Automobile, Mining and<br>Petroleum Engineering) |   |   |   |     |
| Teaching                             | Total contact hours-48   | L   | T | P | C   |
| Prerequisite(s): Aptitude to learn . |  | 0   | 0 | 3 | 1.5 |

### Course Objective:

- Provide insight into utilization of various tool in carpentry, fitting, tin smithy, black smithy and house wiring.

### Course Outcomes:

|  |   |
|--|---|
| On Completion of the course, the students will be able to- |   |
| CO1:   | Experiment with various basic house wiring techniques.  |
| CO2:   | Develop basic prototype in the trade of tin smithy such as square tray and open scoop.              |
| CO3:   | Design v-fitting and square fitting in the trade of fitting   |
| CO4:   | Making square rod and L-bend from the round rod in black smithy                                     |
| CO5:   | Build various prototype like T lap joint, dovetail joint, cross lap etc. in the trade of carpentry. |

### List of Experiments:

**Note:** At least two exercises should be done from each trade.















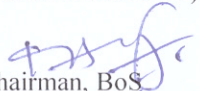
1. Carpentry
  1. T-Lap Joint
  2. Cross Lap Joint
  3. Dovetail Joint
  4. Mortise and Tenon Joint
2. Fitting
  1. Vee Fit
  2. Square Fit
  3. Half Round Fit
  4. Dovetail Fit
3. Black Smithy
  1. Round rod to Square
  2. S-Hook
  3. Round Rod to Flat Ring
  4. Round Rod to Square headed bolt
4. Tin Smithy
  1. Taper Tray
  2. Square Box without lid
  3. Open Scoop
  4. Funnel
5. House wiring

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3. Parallel connection

4. Series connection

Workshop Manual by P.Kannaiah & K.L.Narayana- Scitech Publishers

|   |   |  |   |   |
|---|---|--|---|---|
| <br>University Nominee<br>( Dr. B. Balakrishna)  | <br>Subject Expert<br>( Dr. D. Ravi Kumar)   | <br>Industrial Expert<br>( Mr. Rajiv Aramadaka) | <br>Internal Member<br>(Dr. P.M.M.S. Sarma)  | <br>Special Invitee Member<br>(Dr. M.V. Sekhar Babu) |
| <br>Internal Member<br>( Dr. T. Jayananda Kumar) | <br>Internal Member<br>( Dr. D. Santha Rao)  | <br>Internal Member<br>( Mr. Kedaranath M )     | <br>Internal Member<br>( Mr. B. Joga Rao)    | <br>Internal Member<br>( Mrs. E. Nirmala Devi)       |
| <br>Internal Member<br>( Mr. M. Balakrishna)    | <br>Internal Member<br>( Mr. P. Veera Raju) | <br>Internal Member<br>( Mr. D. Suman)         | <br>Internal Member<br>( Mr. G. Ramakrishna) | <br>Chairman, BOS<br>( Dr. M. Sreenivasa Rao)       |