



2008 – FABRICATION WORKSHOP PRACTICE - II									
Teaching Schedule Per Week			Progressive Assessment	Examination Schedule (Marks)					
Lectures	Practical	Credits		Theory		Practical Ex.		Total	
-	2	2	25	-	-	-	-	-	25
Pre-requisite		Source	Semester	Theory	Test	Total	TW	PR	Gr Total
2003		FAB		-	-	-	25	-	-

RATIONALE: This course in Fabrication work-shop practice is designed to provide farther knowledge and skills in fitting, smithy and foundry which technicians would find necessary in programme of Fabrication Technology. The students should be able to identify the tools, equipment and different fasteners; select and ensure the right tools and equipment at the right place and be safety minded.

COURSE CONTENTS

Hrs Mks

1. FITTINGS

Knowledge of the following tools: - Spanners -Ring spanners, box-spanners snapor fix, podger, adjustable, monkey, etc. Screw drivers: - Flat and star. Pliers: -Nose, circlip (Internal & external) etc., Allen Keys.; Wrenches: -Torque, tommy.; Gauges: -Filler, pitch, radius, angle etc. Drills, rimmers, tap and dieset, etc.

2. FASTENERS

Nuts and bolts: Types of threads (e.g. Metric, B.S.W, B.S.F. etc), types of bolts (hexagonal, square), types of nuts (e.g. black, winged, HSFG etc), washers; Rivets: Solid (different types), blind-rivets.

3. PORTABLE MACHINES

Hand grinders – straight and angle grinder.; Hand drilling.; Blind riveting.; Pneumatic tools. Safety precautions in use of portable machines.

4. JOBS

Job involving hacksaw cutting, drilling, filling and tapping. Job to practice: -Solid and blind riveting.

5. SMITHY AND FOUNDRY

Knowledge of operations such as: -Upsetting, drawing down, bending, forge-welding and punching. Identification by name and use of various tools: - Smith hearth, Anvil, swage block, tongs, hammers, hot and cold chisels, fullers, swages, flatters, etc., measuring tools such as brass rule, inside and outside callipers etc., safety precautions in smithy; Perform one job involving various operations. Demonstration on preparation of casting mould for split pattern.

REFERENCE BOOKS

1. Elements of workshop technology – vol. II by Hajra Chowdary, Asia publication house.
2. Technician Fabrication and welding, by K.J. Cooper and Cassel T.P. Green Wood.
3. Basic Fabrication & Welding Engineers by F. J. Smith.

