WORKSHOP PRACTICE LAB

ject Code :	**14WSL16/14WSL26**	**IA Marks**	**: 25**
urs/Week :	**03**	**Exam. Hours :**	**03**
al Hours :	**42**	**Exam. Marks:**	**50**

arse Objectives :

dents belonging to all branches of Engineering are trained in lerstanding fundamental metal removing process like fitting and joining cesses like welding and soldering.

Demonstration and use of Hand Tools : V-block, Marking Gauge, Files, Hack Saw, Drills, Taps. Two Models showing the joints using the above tools.
Welding : Study of electric arc welding tools &equipments,Models:Butt Joint,Lap Joint,T-joint & L-joint.
Sheet Metal & Soldering Work : Development & Soldering of the models: Frustum of cone, Prism(Hexagon & Pentagon),Truncated Square Pyramid.
Study & Demonstration of power tools in Mechanical Engineering.

arse Outcomes :

dents will demonstrate the knowledge and the skills acquired with respect to
The metal removal process by fitting practice and preparation of joints using appropriate fitting tools.
Preparation of welded joints.
Development of surfaces and forming models by soldering work.

eme of Examination :

ing/Sheet Metal Work : 30 marks (50% of the batch to be given fitting remaining 50% to be given Sheet Metal work including soldering.)
lding : 10 marks
a Voce : 10 marks Total marks : 50 marks

erence Books :

S.K. Hajra Choudhury, A. K. Hajra Choudhury, **"Elements of Workshop Technology"**, Vol I:Manufacturing Processes, 15th Edition Reprinted 2013,Media Promoters & Publishers Pvt Ltd., Mumbai.

te : ***No mini drafters and drawing boards required. Drawings velopments) can be done on sketch sheets using scale, pencil and ometrical Instruments.***

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COMPUTER PROGRAMMING LABORATORY

Subject Code :	**14CPL16/14CPL26**	**IA Marks**	**:25**
Hours/Week :	**03**	**Exam. Hours :**	**03**
Total Hours :	**42**	**Exam. Marks:**	**50**

Demonstration of Personal Computer and Its Accessories
Demonstration and Explanation on Disassembly and Assembly of a Personal Computer by the faculty-in-charge. Students have to prepare a write-up on the same and include it in the Lab record and evaluated.

Laboratory Session-1 : Write-up on Functional block diagram of Computer, CPU, Buses, Mother Board, Chip sets, Operating System & types of OS, Basics of Networking & Topology and NIC.

Laboratory Session-2 : Write-up on RAM, SDRAM, FLASH memory, Hard disks, Optical media, CD-ROM/R/RW, DVDs, Flash drives, Keyboard, Mouse, Printers and Plotters. Introduction to flowchart, algorithm and pseudo code.

Note: These **TWO Laboratory sessions** are used to fill the gap between theory classes and practical sessions. Both sessions are evaluated as lab experiments.

Laboratory Experiments
Implement the programs with WINDOWS / LINUX platform using appropriate C compiler.

1. Design and develop a flowchart or an algorithm that takes three coefficients (***a***, ***b***, and ***c***) of a Quadratic equation ($ax^2+bx+c=0$) as input and compute all possible roots. Implement a C program for the developed flowchart/algorithm and execute the same to output the possible roots for a given set of coefficients with appropriate messages.
2. Design and develop an algorithm to find the ***reverse*** of an integer number **NUM** and check whether it is PALINDROME or NOT. Implement a C program for the developed algorithm that takes an integer number as input and output the reverse of the same with suitable messages. Ex: Num: **2014**, Reverse: **4102**, Not a Palindrome

3a. Design and develop a flowchart to find the square root of a given number *N*. Implement a C program for the same and execute for all