# **CONTENTS**

SR.NO	D. PARTICULARS	PAGE NO.
-	Preface	(i)
-	Acknowledgements	(ii)
1.	Salient Features of the Diploma Programme	1
2.	Employment Opportunities	2
3.	Competency Profile	3
4.	Deriving Curriculum Areas from Competency Profile	5
5.	Abstract of Curriculum Areas	7
6.	Horizontal and Vertical Organisation of the Subject	8
7.	Study and Evaluation Scheme	9
8.	Guidelines for Assessment of Student Centred Activities and Intern Assessment	nal 15
9.	Detailed Contents of various Subjects	
FIRST	T SEMESTER	
1.1	Communication Skills - I	16
1.2	Applied Mathematics - I	18
1.3	Applied Physics – I	20
1.4	Applied Chemistry – I	24
1.5	Basics of Information Technology	28
1.6	Engineering Drawing - I	33
1.7	General Workshop Practice - I	36
SECO	OND SEMESTER	
2.1	Communication Skills – II	41
2.2	Applied Mathematics - II	44
2.3	Applied Physics – II	46
2.4.	Applied Chemistry – II	49
2.5	Applied Mechanics	53

5659

Engineering Drawing - II

General Workshop Practice - II

2.6

2.7

# THIRD SEMESTER

3.1	Strength of Materials	64
3.2	Thermodynamics	68
3.3	Basics of Electrical and Electronics Engineering	71
3.4	Workshop Technology – I	74
3.5	Machine Drawing	78
3.6	Workshop Practice – I	80

### FOURTH SEMESTER

4.1	Materials and Metallurgy	81
4.2	Hydraulics and Hydraulic Machines	84
4.3	I.C. Engines	87
4.4	Machine Design and Drawing	90
4.5	Workshop Technology – II	93
4.6	Workshop Practice – II	96
	Industrial Training	97

## FIFTH SEMESTER

5.1	Theory of Machines	98
5.2	Basics of CNC Machines	100
5.3	Employability Skills – I	102
5.4	Environmental Education	103
5.5	Maintenance of CNC Machines	105
5.6	Workshop Technology – III	107
5.7	Workshop Practice – III	110
5.8	Computer Aided Drafting	111

### SIXTH SEMESTER

6.1	CNC Part Programming	113
6.2	Inspection & Quality Control	116
6.3	Industrial Engineering	119
6.4	Entrepreneurship Development and Management	122
6.5	Employability Skills – II	126
6.6	Project Work	127

10.	Resource Requirements	129
11.	Evaluation Strategy	138
12.	Recommendations for Effective Implementation of Curriculum	141
13.	List of Participants	143