| SR.NC |). | PARTICULARS | PAGE NO |
|-------|---|---|---------|
| - | Prefa | ce | (i) |
| - | Ackn | owledgements | (iii) |
| 1. | Salie | nt Features of the Diploma Programme in Plastic Technology | 1 |
| 2. | Empl | oyment Opportunities for Diploma Holders in Plastic Technolog | gy 2 |
| 3. | Comp | petency Profile of Diploma Holders in Plastic Technology | 3 |
| 4. | Deriv | ring Curriculum Areas from Competency Profile | 5 |
| 5. | Abstract of Curriculum Areas | | |
| 6. | Horizontal and Vertical Organisation of the Subject | | 7 |
| 7. | Study and Evaluation Scheme for Diploma Programme in Plastic Technology | | 8 |
| 8. | Detai | led Contents of various Subjects | 14 |
| | FIRS | T SEMESTER | |
| | 1.1 | Communication Skills – I | 15 |
| | 1.2 | Applied Mathematics – I | 18 |
| | 1.3 | Applied Physics – I | 20 |
| | 1.4 | Applied Chemistry – I | 25 |
| | 1.5 | Basics of Information Technology | 28 |
| | 1.6 | Engineering Drawing – I | 33 |
| | 1.7 | General Workshop Practice – I and II | 36 |

CONTENTS

=

-

SECOND SEMESTER

| 2.1 | Communication Skills – II | 41 | | | |
|-----------------|--------------------------------------|----|--|--|--|
| 2.2 | Applied Mathematics – II | 45 | | | |
| 2.3 | Engineering Drawing – II | 47 | | | |
| 2.4 | General Workshop Practice – I and II | 36 | | | |
| 2.5 | Polymer Chemistry | 50 | | | |
| 2.6 | Introduction to Plastic Technology | 52 | | | |
| 2.7 | Orientation to Polymer Engineering | 54 | | | |
| THIR | D SEMESTER | | | | |
| 3.1 | Engineering Fundamentals | 55 | | | |
| 3.2 | Unit Operations - I | 62 | | | |
| 3.3 | Mechanics of Solids | 64 | | | |
| 3.4 | Polymer Science | 67 | | | |
| 3.5 | Plastic Materials and Properties | 69 | | | |
| 3.6 | AUTOCAD | 71 | | | |
| FOURTH SEMESTER | | | | | |
| 4.1 | Unit Operations – II | 72 | | | |
| 4.2 | Design of Dies and Moulds – I | 75 | | | |
| 4.3 | Engineering and Speciality Polymers | 77 | | | |
| 4.4 | Plastic Processing Techniques – I | 78 | | | |
| 4.5 | Process Instrumentation | 80 | | | |
| 4.6 | Minor Project Work | 82 | | | |

_

9.

10.

11.

=

-

FIFTH SEMESTER

| 5.1 | Plastic Processing Techniques – II | 83 | | | |
|----------------|---|------------|--|--|--|
| 5.1 | Industrial Management | 85 | | | |
| 5.3 | Computer Aided Mould Design | 88 | | | |
| 5.4 | Design of Dies and Moulds - II | 91 | | | |
| 5.5 | Plastics Testing and Quality Control | 89 | | | |
| 5.6 | Compounding of Polymers | 93 | | | |
| 5.7 | Polymer Product Design | 95 | | | |
| SIXTH SEMESTER | | | | | |
| 6.1 | Environment and Pollution in Plastic Industry | 97 | | | |
| 6.2 | Electives | 99 | | | |
| | 6.2(a) Reinforced Plastic | 99 | | | |
| | 6.2(b) Rubber Technology | 101 | | | |
| | 6.2(c) Adhesives and Coating Technology | 103 | | | |
| 6.3 | Plastic Processing Techniques – III | 105 | | | |
| 6.4 | Entrepreneurship Development and Management | 107 | | | |
| 6.5 | Maintenance of Plastic Processing Machinery | 110 | | | |
| 6.6 | Major Project Work | 112 | | | |
| Resou | rce Requirement | 114 | | | |
| 9.1 9.2 | Physical Resources Human Resources | 114 119 | | | |
| Recom | mendations for Effective Implementation of Curriculum | 120 | | | |
| List of | Participants | 121 | | | |
| | | | | | |