

CONTENTS

PREFACE

PART I An Introduction To JIT 1

CHAPTER 1 An Introduction To Just-In-Time 3

- What is Just-In-Time? An Introduction 4
- Why Study JIT? 9
- How This Book Is Designed to Aid in Understanding JIT 14
- Summary 17
- Discussion Questions 18
- Important Terminology 19
- References 20
- Case 1-1. JIT'ing the Wrong Way 21*

CHAPTER 2 JIT Inventory Management 24

- Introduction 25
- JIT Inventory Management Principles 26
- Comparison of JIT and Large-Lot EOQ Operations 29
- JIT Purchasing and Supplier Relations 33
- A Methodology for Implementing JIT in an EOQ Environment 38
- A Methodology for JIT Vendor Evaluation 47
- Measuring JIT Inventory Management Performance 50
- Implementation Strategy for JIT Purchasing 52
- Summary 54
- Important Terminology 54
- Discussion Questions 56
- Problems 56
- References 59
- Case 2-1. JIT'ing to the Tune of EOQ 61*
- Case 2-2. To Vend, or Not to Vend, This is the Question 64*

CHAPTER 3 JIT Production Planning And Scheduling 67

Introduction	68
JIT Production Management Principles	69
Mixed Model Scheduling Method	83
Kanban Card Systems	87
Measuring JIT Production Management Performance	94
Implementation Strategy for JIT Production Systems	96
Summary	99
Important Terminology	99
Discussion Questions	102
Problems	102
References	105
<i>Case 3-1. Scheduling a Mix Up</i>	106
<i>Case 3-2. Can They Band Together with Kanban?</i>	108

CHAPTER 4 JIT Quality Management 112

Introduction	113
JIT Quality Management Principles	114
Process Control Charts	124
Quality Control Circles	137
Measuring JIT Quality Management Performance	139
Integration Strategy for Total Quality Management	141
Summary	143
Important Terminology	144
Discussion Questions	146
Problems	146
References	150
<i>Case 4-1. A Doll of JIT Quality</i>	151
<i>Case 4-2. It's All a Question of JIT Control</i>	154

PART II Integrating JIT 157

CHAPTER 5 Integrating JIT with Computer Integrated Manufacturing (CIM) Systems 159

Introduction	160
Overview of Computer Integrated Manufacturing	161
Benefits of CIM and Their Relationship with JIT	167
Integrating JIT and CIM	170
A Methodology for JIT Software Selection	175

Summary 179
 Important Terminology 179
 Discussion Questions 182
 Problems 183
 References 185
Case 5-1. Choosing JIT'ware 187
Case 5-2. JIT Toward CIM 195

CHAPTER 6 Integrating JIT with Manufacturing Resource Planning (MRP II) Systems 197

Introduction 198
 Overview of Material Requirements Planning 198
 Overview of an MRP II System 203
 Integrating JIT and MRP II 205
 A Strategy for Implementing JIT in an MRP II Environment 212
 Summary 219
 Important Terminology 219
 Discussion Questions 222
 Problems 223
 References 227
Case 6-1. A JIT Waterbed Nightmare 228
Case 6-2. JIT Learning 232

CHAPTER 7 Integrating JIT in Service and Administrative Systems 234

Introduction 235
 Integrating JIT in Service Systems 237
 A Technology for Integrating JIT Principles in Service Systems 252
 Integrating JIT in Administrative Systems 255
 Methodologies to Aid in Implementing JIT in Administrative Systems 262
 Summary 264
 Important Terminology 265
 Discussion Questions 267
 Problems 269
 References 273
Case 7-1. Gassing Up to JIT 276
Case 7-2. Serving JIT 278
Case 7-3. Administrating JIT 283

PART III A JIT Simulation Game 287

Introduction 289

Simulation Game General Information 289

Experiments in JIT and EOQ Operations 299

INDEX 303