UNIT - 8

Choices in Systems Acquisition: Options and Priorities, outsourcing, licensing applications, software as a service, user application development, ethical issues- computer use policies for employees.

06 Hours

TEXT BOOKS:

1. **Management Information Systems**, Effy Oz, Cengage Learning, INDIA EDITION, 2009.
2. **Management Information Systems**, James A O'Brien, Irwin, 9th Ed., McGraw Hill.

REFERENCE BOOKS:

1. **Management Information Systems,** Laudon & Laudon, PHI 1998 Ed. ISBN 81-203-1282-1
2. **Management Information systems,** S.Sadagopan, Prentice Hall of India, 1998 Ed. ISBN 81-203-1180-9
3. **Information systems for Modern management** G.R.Murdick PHI 2002.

AUTOMATION IN MANUFACTURING

Subject Code	**: 10ME757**	**IA Marks**	**: 25**
Hours/Week	**: 04**	**Exam Hours**	**: 03**
Total Hours	**: 52**	**Exam Marks**	**: 100**

PART – A

UNIT - 1

Introduction: Production System Facilities, Manufacturing Support systems, Automation in Production systems, Automation principles & Strategies

05 Hours

UNIT - 2

Manufacturing Operations: Manufacturing Operations, Product/Production Relationship, Production concepts and Mathematical Models & Costs of Manufacturing Operations

07 Hours

UNIT - 3

Industrial Control System: Basic Elements of an Automated System, Advanced Automation Functions & Levels of Automation, Continuous versus Discrete control, Computer Process control, Forms of Computer Process Control.

07 Hours

UNIT - 4

Automated Manufacturing Systems: Components of a Manufacturing systems, Classification of Manufacturing Systems, overview of Classification Scheme, Single Station Manned Workstations and Single Station Automated Cells.

07 Hours

PART – B

UNIT - 5

Group Technology & Flexible Manufacturing Systems: Part Families, Parts Classification and coding, Production Flow Analysis, Cellular Manufacturing, Flexible Manufacturing Systems: What is an FMS, FMS Components, FMS Applications & Benefits, and FMS Planning & Implementation Issues.

08 Hours

UNIT - 6

Quality Control Systems: Traditional and Modern Quality Control Methods, Taguchi Methods in Quality Engineering. Introduction to SQC Tools.

04 Hours

UNIT - 7

Inspection Technologies: Automated Inspection, Coordinate Measuring Machines Construction, operation & Programming, Software, Application & Benefits, Flexible Inspection System, Inspection Probes on Machine Tools, Machine Vision, Optical Inspection Techniques & Non-contact Non-optical Inspection Technologies

06 Hours

UNIT - 8

Manufacturing Support System: Process Planning, Computer Aided Process Planning, Concurrent Engineering & Design for Manufacturing, Advanced Manufacturing Planning, Just-in Time Production System, Basic concepts of lean and Agile manufacturing.

08 Hours

TEXT BOOKS:

1. **Automation, Production Systems and Computer Integrated Manufacturing,** M. P. Groover, Pearson education. Third Edition, 2008
2. **Principles of CIM,** Vajpayee, PHI.

REFERENCE BOOKS:

1. **Anatomy of Automation**, Amber G.H & P. S. Amber, Prentice Hall.
2. **Performance Modeling of Automated Manufacturing Systems,** Viswanandham, PHI
3. **Computer Based Industrial Control**, Krishna Kant, EEE-PHI

TOTAL QUALITY MANAGEMENT

Subject Code	**: 10ME758**	**IA Marks**	**: 25**
Hours/Week	**: 04**	**Exam Hours**	**: 03**
Total Hours	**: 52**	**Exam Marks**	**: 100**

PART – A

UNIT - 1

Principles and Practice: Definition, basic approach, gurus of TQM, TQM Framework, awareness, defining quality, historical review, obstacles, benefits of TQM.

06 Hours