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Nota di contenuto	Title Page; Table of Contents; Preface; Acknowledgments; Abbreviations; 1 An Overview; 1.1 Introduction; 1.2 Classification of Engineered Objects; 1.3 Performance of Engineered Objects; 1.4 Maintenance; 1.5 Evolution of Maintenance; 1.6 Focus of the Book; 1.7 Structure and Outline of the Book; Review Questions; Exercises; References; Part A: Maintenance Engineering and Technology; 2 Basics of Reliability Theory; 2.1 Introduction; 2.2 Decomposition of an Engineered Object; 2.3 Functions, Failures, and Faults; 2.4 Characterization of Degradation; 2.5 Reliability Concept and Characterization 2.6 Linking System and Component Failures2.7 Reliability Theory; 2.8 Summary; Review Questions; Exercises; References; 3 System Degradation and Failure; 3.1 Introduction; 3.2 Failure Mechanisms; 3.3 Classification of Failure Mechanisms; 3.4 Dynamic Nature of Stress and Strength; 3.5 Degradation of Products and Plants; 3.6 Degradation of Infrastructures; 3.7 Failure Mechanisms and Maintenance; 3.8 Summary; Review Questions; Exercises; References; 4 Maintenance - Basic Concepts; 4.1 Introduction; 4.2 Types of Maintenance Actions; 4.3 Preventive Maintenance Actions

4.4 Corrective Maintenance Actions4.5 Design Out Maintenance; 4.6 Uptime and Downtime; 4.7 Warranty and Maintenance; 4.8 Maintenance of Products; 4.9 Maintenance of Plants and Facilities; 4.10 Maintenance of Infrastructures; 4.11 Effective Maintenance; 4.12 Summary; Review Questions; Exercises; References; 5 Life Cycle of Engineered Objects; 5.1 Introduction; 5.2 Life Cycle Concept and Classification; 5.3 Standard Objects; 5.4 Custom-Built Objects; 5.5 Reliability: Product Life Cycle Perspective; 5.6 Life Cycle Cost; 5.7 Summary; Review Questions; Exercises; References

6 Technologies for Maintenance6.1 Introduction; 6.2 Technology - An Overview; 6.3 Assessing the State (Condition) of an Item; 6.4 Sensors; 6.5 Testing Technologies; 6.6 Data-Related Technologies; 6.7 Technologies for Maintenance of Products; 6.8 Technologies for Maintenance of Plants; 6.9 Technologies for Maintenance of Infrastructures; 6.10 Summary; Review Questions; Exercises; References; 7 Maintainability and Availability; 7.1 Introduction; 7.2 Maintainability - An Overview; 7.3 Elements of Maintainability; 7.4 Availability; 7.5 Maintainability Process; 7.6 Maintainability Standards 7.7 Relationship with Other Disciplines7.8 Summary; Review Questions; Exercises; References; Part B: Reliability and Maintenance Modeling; 8 Models and the Modeling Process; 8.1 Introduction; 8.2 Models; 8.3 Mathematical Modeling; 8.4 Approaches to Modeling; 8.5 Mathematical Modeling Process; 8.6 Statistics versus Probability Perspectives; 8.7 Modeling of Maintenance Decision Problems; 8.8 Summary; Review Questions; Exercises; Reference; 9 Collection and Analysis of Maintenance Data; 9.1 Introduction; 9.2 Data, Information, and Knowledge; 9.3 Maintenance Data; 9.4 Data Analysis 9.5 Descriptive Statistics
