## Chapter 1

Essential Sections: 1-2, 1-7 Key Equations: not requirement Typical Sample Problems: 1-4, 1-5

## Chapter 2

Essential Sections: 2-2, 2-3

Key Equations: 2-5, 2-6, 2-7, 2-9, 2-11, 2-12, 2-13, 2-16, 2-17

Typical Sample Problems: 2-2, 2-3, 2-4

## Chapter 3

Essential Sections: 3-2, 3-5, 3-6, 3-8

Key Equations: 3-4, 3-5, 3-6

Typical Sample Problems: 3-5, 3-6, 3-7

## Chapter 4

Essential Sections: 4-4, 4-6

Key Equations: 4-18, 4-22, 4-24, 4-31, 4-32, 4-34

Typical Sample Problems: 4-6, 4-7

## Chapter 5

Essential Sections: 5-2, 5-3

Key Equations: 5-7, 5-8, 5-13, 5-18

Typical Sample Problems: 5-6, 5-7, 5-9, 5-11

## Chapter 6

Essential Sections: 6-3, 6-4

Key Equations: 6-1, 6-2, 6-4, 6-5, 6-6, 6-7, 6-21, 6-23

Typical Sample Problems: 6-1, 6-2, 6-3, 6-9

# Chapter 7

Essential Sections: 7-3, 7-4, 7-5

Key Equations: 7-6, 7-9, 7-11, 7-12, 7-16, 7-17, 7-18, 7-20, 7-21, 7-23, 7-25, 7-30, 7-31

Typical Sample Problems: 7-4, 7-5, 7-6, 7-8, 7-9, 7-10

# Chapter 8

Essential Sections: 8-1, 8-2, 8-5

Key Equations: 8-1, 8-3, 8-5, 8-8, 8-9, 8-10, 8-11, 8-19

Typical Sample Problems: 8-2, 8-5, 8-6

#### Chapter 9

Essential Sections: 9-1, 9-2, 9-3, 9-6, 9-7

Key Equations: 9-3, 9-10, 9-11, 9-12, 9-15, 9-16, 9-17,9-21, 9-36 Typical Sample Problems: 9-2, 9-3, 9-4, 9-5, 9-10, 9-11, 9-12, 9-13

## Chapter 10

Essential Sections: 10-1, 10-3, 10-4, 10-5, 10-6

Key Equations: 10-1, 10-2, 10-9, 10-11, 10-17, 10-19, 10-20

Typical Sample Problems: 10-1, 10-2, 10-4

## Chapter 11

Essential Sections: 11-4, 11-6, 11-7

Key Equations: 11-4, 11-6, 11-10, 11-14, 11-20, 11-26, 11-29

Typical Sample Problems: 11-4, 11-8, 11-9, 11-10

#### Chapter 12

Essential Sections: 12-1, 12-2

Key Equations: 12-3, 12-6, 12-7, 12-12, 12-15, 12-18, 12-24, 12-26 Typical Sample Problems: 12-3, 12-6, 12-7,12-9, 12-10, 12-11

## Chapter 13

Essential Sections: not requirement Key Equations: not requirement Typical Sample Problems: 13-2

#### Chapter 14

Essential Sections: 14-2, 14-4, 14-5, 14-6 Key Equations: 14-1, 14-4, 14-5, 14-17, 14-23 Typical Sample Problems: 14-1, 14-2, 14-5

## Chapter 15

Essential Sections: 15-2, 15-4

Key Equations: 15-2, 15-4, 15-5, 15-9, 15-12, 15-14, 15-20

Typical Sample Problems: 15-2, 15-3, 15-5

## Chapter 16

Essential Sections: 16-2, 16-3

Key Equations: 16-1, 16-3, 16-8, 16-10 Typical Sample Problems: 16-1, 16-2

## Chapter 17

Essential Sections: 17-3, 17-4, 17-5, 17-6

Key Equations: 17-6, 17-7, 17-8, 17-9, 17-10, 17-11, 17-14, 17-19, 17-20, 17-21, 17-23, 17-24,

17-28, 17-30, 17-31, 17-47

Typical Sample Problems: 17-1, 17-2, 17-5, 17-7

### Chapter 18

Essential Sections: 18-3, 18-6, 18-8, 18-9

Key Equations: 18-8, 18-9, 18-10, 18-11, 18-12, 18-13, 18-14, 18-15, 18-16, 18-19, 18-24, 18-32,

18-33, 18-34, 18-38, 18-40, 18-42, 18-43, 18-44, 18-46

Typical Sample Problems: 18-1, 18-2, 18-3

## Chapter 19

Essential Sections: 19-8, 19-9 Key Equations: 19-37, 19-44 Typical Sample Problems: 19-6

## Chapter 20

Essential Sections: 20-3, 20-4, 20-6, 20-7, 20-8, 20-9

Key Equations: 20-3, 20-8, 20-14, 20-17, 20-18, 20-24, 20-27, 20-30, 20-31, 20-32, 20-34

Typical Sample Problems: 20-1, 20-2, 20-3, 20-4, 20-5, 20-7, 20-8, 20-10, 20-11

## Chapter 21

Essential Sections: 21-5 Key Equations: 21-13, 21-17 Typical Sample Problems:

## Chapter 22

Essential Sections: 22-2, 22-3, 22-4, 22-5

Key Equations: 22-2, 22-4, 22-8, 22-9, 22-13, 22-14, 22-15, 22-16, 22-17, 22-18, 22-19, 22-20,

22-21, 22-22, 22-23, 22-33

Typical Sample Problems: 22-1, 22-4, 22-5, 22-7, 22-8

## Chapter 23

Essential Sections: 23-1, 23-4, 23-5, 23-6, 23-7, 23-8

Key Equations: 23-4, 23-6, 23-7, 23-8, 23-13, 23-15, 23-18, 23-22, 23-27, 23-28, 23-29, 23-37,

23-39, 23-43

Typical Sample Problems: 23-1, 23-4, 23-7, 23-8, 23-9

## Chapter 24

Essential Sections: 24-2, 24-5, 24-6,

Key Equations: 24-1, 24-5, 24-7, 24-9, 24-11, 24-12, 24-13, 24-14, 24-15, 24-19, 24-20

Typical Sample Problems: 24-1, 24-4, 24-5, 24-6, 24-7, 24-8, 24-9