(Text Book Problems to be attempted by the students: not for submission)
The list of problems listed below is recommended to the students for practice. It will indicate what is expected of the students in this course. The level of the course will also more or less confirm this list.

Chapter 10

10.1   1, 4, 6, 28, 31, 36, 44, 46, 47, 58, 87.
10.2   5, 12, 32, 41, 44, 45, 47, 48, 51, 59, 60, 68,74,76
10.3   15, 20, 23, 26, 27, 31, 32, 37, 38, 55, 56, 57
10.4   17, 19, 20, 25, 27, 29, 31, 45, 51, 56, 58
10.5   18, 19, 21, 22, 26, 31, 32, 35, 36, 37, 38, 41, 42, 61, 64
10.6   9, 10, 12, 13, 20, 22, 27, 30, 34, 38, 43
10.7   2, 4, 5, 8, 13, 15, 18, 19, 20, 25,27, 32, 47, 48
10.8   13, 15, 19, 20, 21, 23, 25, 29, 30

Chapter 11

11.3   2, 3, 5, 6, 8, 9, 11, 12,13, 15, 17, 19, 23, 24, 27, 35, 37, 42, 43, 47, 50, 56, 58, 64, 65, 67
11.4   2, 3, 4, 9, 10, 11, 13, 16, 17, 18, 19, 20, 22, *
11.5   4, 5, 7, 9, 10, 11, 12, 14, 15, 16, 20, 21, 23, 25, 29
11.7   29, 34, 36, 37, 38, 39, 40, 41, 43, 45, 49, 51, 52, 53, 54, 57, 61
Practice Exercises on Chapter 11: 39-46, 50
Additional exercises on Ch. 11: 23

* Problems from Section-11.4 (for points of intersections):
1. show that the point $(2,3\pi/4)$ lies on the curve $r=2\sin(2\theta)$

2. Find the points of intersections of the pairs of curves for the following problems:

i. $r = 1 + \cos(\theta), r = 1 - \cos(\theta),$

ii. $r = 1 + \sin(\theta), r = 1 - \sin(\theta),$

iii. $r = 2\sin(\theta), r = 2\sin(2\theta),$

iv. $r = \cos(\theta), r = 1 - \cos(\theta),$

v. $r = 1, r^2 = 2\sin(2\theta),$

vi. $r = -1 + \sin(\theta), r = 1 + \sin(\theta)$

Chapter 13

13.1   1, 3, 5, 6, 7, 8, 11, 12, 14, 15, 17, 19, 22, 25, 26
13.2   4, 9, 12, 14, 16, 18
13.3   2, 3, 5, 8, 9, 10, 11, 12, 13, 16, 18, 19, 20
13.4   1, 3, 4, 5, 6, 10, 11, 12, 16, 18
13.5   2, 4, 6, 8, 10, 11, 12, 16, 19
Practice Exercises on Chapter 13: 4, 7, 20, 26, 28

Chapter 14

14.1   18, 19, 21, 23, 24, 26, 49, 50, 61, 66
14.2   2, 6, 8, 9, 12, 15, 18, 20, 31, 32, 33, 34, 35, 41, 42, 43, 44, 47, 54, 55, 60, 62, 63
14.3   3, 4, 18, 20, 21, 26, 32, 36, 41, 44, 65, 66, 69, 73, 75, 81
14.4   2, 3, 4, 5, 6, 7 – 11, 25, 26, 31, 33, 35, 36, 43, 44, 45, 50
14.5   2, 4, 9, 15, 17, 18, 19, 22, 23, 27, 34-36
14.6   2, 4, 9, 12, 13, 16, 19, 22, 26, 30, 41, 44, 57, 58
14.7   1, 2, 9, 10, 13, 15, 22, 25, 31, 33, 34, 44
14.8   2, 3, 4, 8, 17, 18, 19, 23, 24, 29, 30, 33, 35, 40, 41

Practice Problems on Ch. 14 : 11, 15, 53
Additional Exercises on Ch. 14: 1

Chapter 15
15.1   5, 6, 13, 16, 19, 21, 24, 27
15.2   19, 22, 27, 29, 32, 33, 35, 36, 39, 40, 42, 47, 49, 51, 56, 58, 59, 61, 64, 77, 80
15.3   1, 3, 6, 11, 13, 15, 18, 22
15.4   9, 12, 14, 17, 20, 28, 31, 39, 41
15.5   2, 4, 6, 7, 8, 9, 10, 13, 19, 21, 23, 24, 26, 27, 31, 33, 36, 43
15.7   1, 3, 5, 10, 13, 15, 17, 19, 21, 23, 25, 40, 47, 49-54, 56, 58, 59, 60, 62
15.8   1, 3, 4, 6, 7, 9, 10, 12, 13, 17, 18, 22
Practice problems on Ch. 15: 15, 16, 21, 36, 37
Additional problems on Ch. 15: 11, 12

Chapter 16
16.1   1, 3, 6, 7, 8, 15, 16, 29
16.2   3, 9, 25, 26, 30, 34, 36
16.3   1, 3, 5, 7, 11, 12, 13, 15, 16, 18, 19, 21, 22, 23, 26
16.4   4, 6, 7, 8, 15, 22, 23, 24, 27
16.5   37, 39, 40, 42, 43, 44, 45, 46, 49, 51, 52, 53, 54
16.6   9, 13, 33, 38
16.7   1, 3, 5, 6, 7, 10, 11, 19, 26
16.8   7, 9, 11, 13, 17, 19