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Calculus

Chapter 11:-

11.1 Sequences

11.2 Convergent or Divergent series

11.3 Positive term series

11.4 The ratio and root tests

11.5 Alternating series and absolute convergence

11.6 Power series

11.7 Power series representations of functions

11.8 Maclaurin and Taylor series

Exercises:

11.1:2,4,6,7,10,11,12,15,20,23,24,28,29,33,34,35,36,37,42

11.2:2,5,6,8,9,10,12,14,15,17,19,22,26,28,30,38,40,43,45,46

11.3: 2,4,8,11,12,14,16,17,23,26,27,31,36,39,44,46

11.4: 3,6,10,13,14,18,21,26,27,29,32,37

11.5: 2,4,5,7,9,13,17,19,23,27,29,31,34,37,41,45,46

11.6: 4, 6,11,17,24,25,27,30

11.7: 2,4,8,10,11,13,17,19,22,25,29,32

11.8: 2,3,6,9,13,15,19,20,22, 33,36

Differential equations

Chapter 1

**1.1:** Basic Definitions and terminology

**1.2:** Initial-value problems

**Exercises**

**1.1:** 1-7,9,13,14,17,18,22,23,29,30,32.

**1.2:** 1,3,13,19,21,23.

Chapter 2

**2.1:** Preliminary Theory

**2.2:** Separable Equations

**2.3:** Linear Equations

**2.4:** Exact Equations

**2.5:** solution by substitutions

**2.6:** The Equations of Bernoulli .

Exercises:

2.2 4,7, 8,9,12,13,14,19,25,27,32.

2.3 3,8,9,11,14,17,19,23,27,31,33,35.

2.4 3,4,8,11,15,17,22,27,28,29.

2.5 3,8,9,12,13,14,17,21.

Fourier series