GMA S4 01
Exam. Code : MAE 4A

Integral Calculus and Differential Equations

COURSE - IV

MATHEMATICS

BLOCK - 2



KRISHNA KANTA HANDIQUI STATE OPEN UNIVERSITY

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BLOCK INTRODUCTION

This is the second block of the course “Integral Calculus and Differential Equations”. The block consists of eight units.

Unit 7 introduces fundamental concepts differential equation.

Unit 8 deals with the solution of first order and first degree ordinary differential equation.In this unit, we will discuss different methods for solving first order and first degree ordinary differential equation.

In unit 9, we will introduce you to exact differential equation of first order and first degree.In this unit, we will discuss different methods for solving exact differential equation of first order and first degree.

Unit 10 covers the solution of first order and higher degree differential equation.Clairaut’s form is also explored in this unit.

Unit 11 begins with introduction of linear differential equation of higher order.Solution procedure for linear differential equation of higher order is discussed in this unit.

In unit 12, we will linear homogeneous differential equation of higher order.Method of variation is also included in this unit.

Unit 13 deals with partial differential equation and its formation.

In unit 14, we will discuss solution of first order and first degree partial differential.

While going through a unit, you will notice some along-side boxes, which have been included to help you know some of the difficult, unseen terms. Some ‘ACTIVITY’ (s) has been included to help you apply your own thoughts. Again, we have included some relevant concepts in ‘LET US KNOW’ along with the text. And, at the end of each section, you will get ‘CHECK YOUR PROGRESS’ questions. These have been designed to self-check your progress of study. It will be better if you solve the problems put in these boxes immediately after you go through the sections of the units and then match your answers with ‘ANSWERS TO CHECK YOUR PROGRESS’ given at the end of each unit.

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