

MTHB3101T: ALGEBRA-I

Course Outcomes:	
CO1	To have the knowledge of groups and its properties
CO2	To have the knowledge of homomorphism
CO3	To have the knowledge of rings
CO4	To have the knowledge of ideals and quotient rings
CO5	To have basic properties of groups and rings

For Regular / Centre of Distance and Online Education students

Max. Marks 50

Time allowed: 3hrs.

External Marks: 35

Internal Assessment: 15

For Regular students: 6 lectures of 45 minutes / week

For Private Students: Maximum Marks: 50 (No internal assessment)

Pass percentage: 35%

INSTRUCTIONS FOR THE PAPER-SETTER

The question paper will consist of three sections A, B and C. Sections A and B will have four questions each from the respective sections of the syllabus and Section C will consist of one compulsory question having eight short answer type questions covering the entire syllabus uniformly. Each question in Sections A and B will be of 06 marks and Section C will be of 16 marks.

INSTRUCTIONS FOR THE PAPER SETTER (Private Students)

The question paper will consist of three sections A, B and C. Section A and B will have four questions each from the respective sections of the syllabus and Section C will consist of one compulsory question having eight short answer type questions covering the entire syllabus uniformly. Each question in Sections A and B will be of 7.5 marks and Section C will be of 20 marks.

INSTRUCTIONS FOR THE CANDIDATES

Candidates are required to attempt five questions in all selecting two questions from each of the Section A and B and compulsory question of Section C.

Section-A

Group: definition, examples, subgroups, counting Principle, Lagrange's theorem, Normal subgroups, Quotient groups, Homomorphisms, Fundamental theorem of homomorphism and related theorems. Cyclic Groups.

Section- B

Rings: Definition and examples of Rings, Elementary properties of Rings, Sub-rings. Homomorphism, ideals and Quotient Rings, Field of Quotient of Integral domain, division rings. Euclidean Rings, Principal ideals, examples.

Chanchal