Subject : Mathematics **Post Graduate**

Paper : PG (MT) 01 : Group A

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Paper : PG (MT) 01 : Group B

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Netaji Subhas
Open University

PG (MT)—01
Abstract Algebra,
Linear Algebra

Group A
Abstract Algebra

Group B
Linear Algebra

Subject : Mathematics **Post Graduate**

Paper : PG (MT) 02 : Groups : A & B

Group A

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Group B

Units : 1 - 8	Dr. Pulak Sahoo	Dr. Sanjib Kumar Datta

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PG (MT) – 02
Real Analysis & Metric Spaces
•
Complex Analysis

Group–A
Real Analysis & Metric Spaces

Group–B
Complex Analysis

Subject : Mathematics **Post Graduate**

Paper : PG (MT) 03 : Groups A & B

Writer

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Open University

Group
A
Ordinary Differential Equations and Special Functions

Group B
Partial Differential Equations

Subject : Mathematics **Post Graduate**

Paper : PG (MT) 04 : Group A

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Revised by Prof. Madhumangal Pal

Paper : PG (MT) 04 : Group B (Revised Syllabus)

Writer	**Editor**
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PG (MT)–04
Numerical Analysis, Computer Programming and its application to Numerical Analysis

Group A

Numerical Analysis

Group B

Computer Programming and its application to Numerical Analysis

Subject : Mathematics **Post–Graduate**

Paper : PG (MT) 05 : Groups A & B

Group A

Writer	**Editor**
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Group B

Writer	**Editor**
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Notification

Mohan Kumar Chattopadhyay
Registrar

Netaji Subhas
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PG (MT) — 05
Principles of Mechanics
Elements of Continuum Mechanics and Special Theory of Relativity

Group A
Principles of Mechanics

Group B

Elements of Continuum Mechanics and Special Theory of Relativity

P.G.
(Mathematics)
SYLLABUS
General Topology VI A (Marks : 50)
PGMT-II

Topological spaces, Examples, Base for a Topology, Sub-subbase, Neighbourhood system of a point, Neighbourhood base, Limit point of a set, Closed sets, Closure of a set, Kuratowski closure operator; Interior and boundary of a set, Sub-space Topology, First and Second Countable spaces. Continuous function over a Topological space. Homeomorphism; Nets, Filters, Their convergence, Product space, Projection function, Open and Closed function, Quotient spaces.

Separation axioms T_0, T_1, T_2, T_3, T_4 in Topological spaces, Product of T_2-spaces, Regular spaces, Normal spaces, Completely regular spaces, Tychonoff spaces, Urysohns Lemma in Normal spaces, Tietze extension Theorem, Embedding in cube, Embedding Lemma, Urysohn's metrization Lemma.

Open cover, Sub-cover, Compactness, Countable open cover, Lindelöff space, Compact sets, Finite Intersection property, Tychonoff Theorem on product of compact spaces, Continuous image of a compact spaces, Locally compact spaces, One point compactification.

Connected spaces, Separated sets, Disconnection of a space, Union of connected sets, Closure of a connected set, Connected sets of reals, Continuous image of a connected space, Topological product of connected spaces, components, Totally disconnected spaces, Locally connected spaces.

Uniformity in a set, Base, Sub-base of a Uniformity, Uniform space, Uniform Topology, T_2-property of a Uniformity, Interior and closure of a set in terms of uniformity, Uniformly continuous function, Product Uniformity.

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PG (MT)–VII

Differential Equations and Integral Transformation, Integral Equations

Group A

Differential Equations and Integral Transformation

Group B

Integral Equations

Subject : Mathematics **Post Graduate**

Paper : PG (MT) 08 : Group A

Writer
Prof. Manjusha Majumdar

Editor
Prof. M. C. Chaki

Revised by Prof. Uday Chand De

Paper : PG (MT) 08 : Group B

Writer
Prof. B. C. Chakraborty

Editor
Prof. Malay Sen

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PG (MT) – 08
Differential Geometry (With the Use of Tensor Calculus), Graph Theory

Group A
Differential Geometry

Group B
Graph Theory