



## MANNAR THIRUMALAI NAICKER COLLEGE(Autonomous)

(An Autonomous Institution Affiliated to Madurai Kamaraj University)

(Accredited with "A" Grade by NAAC)

Pasumalai, Madurai -625004

### DEPARTMENT OF MATHEMATICS

<b>Programme</b>	<b>: UG</b>	<b>Part III</b>	<b>: Core</b>
<b>Semester</b>	<b>: III</b>	<b>Hours per week</b>	<b>: 05</b>
<b>Sub code</b>	<b>: 18UMTC32</b>	<b>Credit</b>	<b>: 05</b>

### SEQUENCES AND SERIES

#### Course Outcomes

- CO1:** To learn about sequences through examples.
- CO2:** To introduce infinite series and alternative series.
- CO3:** To familiarize the application of series in Trigonometry.
- CO4:** To understand of how the elementary functions can be defined by power series, with an ability to deduce some of their easier properties.

<b>Programme</b>	<b>: UG</b>	<b>Part IV</b>	<b>: NME</b>
<b>Semester</b>	<b>: III</b>	<b>Hours per week</b>	<b>: 02</b>
<b>Sub code</b>	<b>: 18UMTN31</b>	<b>Credit</b>	<b>: 02</b>

### MATHEMATICS FOR COMPETITIVE EXAMINATION – I

#### Course Outcomes:

- CO1:** To introduce concepts of Mathematics along with analytical ability.
- CO2:** To practice the mathematical formulas and methods
- CO3:** To develop the computational skills needed.
- CO4:** To improve the ability to face the competitive examinations.

<b>Programme</b>	<b>: UG</b>	<b>Part III</b>	<b>: Core</b>
<b>Semester</b>	<b>: IV</b>	<b>Hours per week</b>	<b>: 05</b>
<b>Sub code</b>	<b>: 18UMTC41</b>	<b>Credit</b>	<b>: 05</b>

### ANALYTICAL GEOMETRY 3D AND VECTOR CALCULUS

#### Course Outcomes:

- CO1:** To understand the concepts of equation of a plane, Straight line, Sphere,
- CO2:** To learn the basic concepts in vector differentiation.
- CO3:** To acquire the knowledge of Analytical geometry of three dimensions & vector calculus.

**CO4:** To introduce the application of double and triple Integration.

<b>Programme</b> : UG	<b>Part III</b>	<b>: Core</b>
<b>Semester</b> : IV	<b>Hours per week</b>	<b>: 05</b>
<b>Sub code</b> : 18UMTC42	<b>Credit</b>	<b>: 05</b>

### STATISTICS – I

#### Course Outcomes

**CO1:** To develop skills in basic statistical concepts.

**CO2:** To introduce Correlation and Regression.

**CO3:** To learn about various techniques on curve fitting.

**CO4:** To imply all kinds of attributes in statistics.

<b>Programme</b> : UG	<b>Part IV</b>	<b>: NME</b>
<b>Semester</b> : IV	<b>Hours</b>	<b>: 02</b>
<b>Sub code</b> : 18UMTN41	<b>Credit</b>	<b>: 02</b>

### MATHEMATICS FOR COMPETITIVE EXAMINATION - II

#### Course Outcomes:

**CO1:** To introduce concepts of Mathematics along with analytical ability.

**CO2:** To develop the computational skills needed.

**CO3:** To improve the ability to face the competitive examinations.

**CO4:** To familiarize the concepts of permutation and combination.

<b>Programme</b> : Physics	<b>Part III</b>	<b>: Allied</b>
<b>Semester</b> : III	<b>Hours per week</b>	<b>: 04</b>
<b>Subject Code</b> : 18UMTA31	<b>Credit</b>	<b>: 04</b>

### ALLIED MATHEMATICS – III

#### Course Outcomes:

**CO1:** To develop the skills in formulation of LPP.

**CO2:** To learn about different techniques on solving LPP.

**CO3:** To understand Transportation and Assignment problems.

**CO4:** To provide the capability of solving the Commercial mathematical problems for employability.

<b>Programme</b> : Physics	<b>Part III</b>	<b>: Allied</b>
<b>Semester</b> : IV	<b>Hours per week</b>	<b>: 04</b>
<b>Sub code</b> : 18UMTA41	<b>Credit</b>	<b>: 04</b>

### ALLIED MATHEMATICS – IV

#### Course Outcomes

**CO1:** To develop logical skills in solving the differential equations.

**CO2:** To introduce the concepts of an analytic function.

**CO3:** To familiarize bilinear transformations.

**CO4:** To familiarize the applications on skill development.