

#### Dempo Charities Trust's DHEMPE COLLEGE OF ARTS & SCIENCE Miramar, Panaji-Goa

## Mathematical Approach to Economics

#### **Course objectives**

- To prepare students with quantitative methods required to answer entrance exam in Indian Economic Service
- To enable students to refer research journals and solve the quantitative problems by understanding the applications of the articles

### **Course contents**

- To understand how equations are used in Economics
- Rewrite and solve equations, substitute expressions
- Solve simple linear demand and supply equations to find market equation, carry out costvolume- profit analysis
- Solve quadratic equations (nora- linear curves), Profit maximizing output equations, Exponential functions, Use Logarithms
- Plot and solve equations in Excel

#### **Course outcome**

- Students will be able to answer quantitative techniques in various entrance exams.
- Students will be able to use quantitative techniques in research.

Practical approach to Goods and Services tax : (2017 - 18) ATTENDANCE :

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4	Merzayi Azizulah	P	P	P	P	P	r	P	P	P	P	P	P	P	ľ	1

Mathematical application course (2017-2018) :

ATTENDANCE :

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2	Mohammad Jawad	PPPPPPPPPPPPPPP
3	Madan Budge	PPPPPPPPP
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6	Priyanka M.	PPPPPPPPPP
7	Kevin Fernandes	PPPPPPPPPPPPP
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9	Nimish Parab	PPPPPPPPPP
10	Nutan Naik	PPPPPPPPP
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Department of Economics

Value added courses

1) Practical Approach to Goods and Service Tax

Objectives: To make students learn practical aspects of Goods and Services Tax (GST) calculations and make them aware of the licensing and registration procedures.

There were only 06 students enrolled. The total number of lectures assigned to this course were 30 hours.

2) Mathematical Approach to Economics

Objectives: i) To prepare students with quantitative methods required to answer entrance exam in Indian Economic service. ii) To enable students to refer research journals and solve the quantitative problems by understand the applications of the articles.

There were 06 students enrolled. The total number of lectures assigned to this course were 30 hours.

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Goods and Sales Tax

Chapter I Overview of GST (1 hr)

Chapter II Levy of Exemption from Tax (3 hs)

Chapter III Registration (2 hrs)

Chapter IV Meaning and scope of Supply (2 hrs)

Chapter V Time of Supply - Goods and Services (2 hrs)

Chapter VI Valuations in GST (2 hrs)

Chapter VII Payment of GST (2 hrs)

Chapter VIII Electronic Commerce (TCS) (2 hrs)

Chapter IX Job work (1 hr)

Chapter X Input Tax credits (3hrs)

Chapter XI Input service distributors (2 hrs)

Chapter XII Returns in GST (2 hrs)

Chapter XIII Overview of IGST (2 hrs)

Chapter XIV Place of Supply of Goods and Services (2 hrs)

Chapter XV GST Portal, uploading, GSP (2 hrs)

# Application of Mathematics in Economics and in Business

Chapter I Application of Mathematics (14 hrs)

# Probability and Statistics for decision making

# Numerical analysis

# Business Mathematics

# Mathematical Economics --- Profit Maximisation, Cost minimization etc.

Chapter II In Business

(8 hrs)

# Studying nu7mber pattens

# Calculate production costs

# Determine Pricing

# Measure profits

# Analyze Finances

Chapter III In Economics

(8 hrs)

# Economic analysis

# Cost benefit analysis

# Environment Abatement Cost