

Syllabus

Certificate Course in “Introduction to Financial Mathematics and GST”

PART – I

Theory

Paper 1: Mathematics (FMGT1)

Paper 2: Finance (FMGT2)

Paper3: GST (FMGT3)

Each paper carries 4 credits

PART – II

Practical

Practical Paper 1: Mathematics (FMGP1)

Practical Paper 2: Finance (FMGP2)

Practical Paper3: GST (FMGP3)

Each paper carries 4 credits

PART – III

Project Work

There will be project work which will be of 6 credits which includes field work / field visit by students

Theory Paper
FMGT1: Mathematics

Chapter 1: Introduction to Mathematics

- 1.1) Elementary Mathematics
- 1.2) Elementary Algebra
- 1.3) Basics of Trigonometry [15]

Chapter 2: Introduction to Graphs in Mathematics

- 2.1) System of linear equations
- 2.2) Introduction to graphical method
- 2.3) Data Charts and its types [15]

Chapter 3: Introduction to Financial Mathematics

- 3.1) Profit and Loss
- 3.2) Interest and Types of Interests
- 3.3) Shares and Dividend [15]

Chapter 4: Basics of Accounting

- 4.1) Introduction to Accounting equation
- 4.2) Financial Accounting
- 4.3) Cost Accounting [15]

Textbook:

- 1) Basic Mathematics by S. Lang (Springer Publication)
- 2) Basic Accounting by R. Sofat and P. Hiro, 3rd Edition, (PHI).

Reference Books:

- 1) Basic Accounting by M. R. Agarawal, Garima Publications
- 2) Basics of Mathematics by R. Singh, New Light Publisher, (2019).

FMGT2: Finance

Chapter 1: Tax

- 1.1) Introduction Tax system in India
- 1.2) Indirect Tax
- 1.3) Direct Tax [15]

Chapter 2: GDP

- 2.1) History, Definition
- 2.2) Types of GDP
- 2.3) GDP and GNI
- 2.4) IMF and Role of IMF [15]

Chapter 3: Banking System

- 3.1) History of Banking System
- 3.2) Adoption of Banking Technology
- 3.3) Banking Codes and Standards [15]

Chapter 4: Portfolio

- 4.1) History and relationship with Share market
- 4.2) Difference between BSE and NSE
- 4.2) Mutual Funds and its Risks
- 4.3) SIP, Types of SIP and its Risks [15]

Text Book:

- 1) Understanding Taxes in India by Ram Dutt Sharma, Commercial Law Publishers India Pvt. Ltd., 2nd Ed. (2018)

FMGT3: GST

Chapter 1: History and Introduction

- 1.1) History of GST
- 1.2) GST Council
- 1.3) Pre – GST and Post – GST and the difference
- 1.4) GST Laws [15]

Chapter 2: Types of GST

- 2.1) CGST and SGST
- 2.2) IGST and UTGST
- 2.3) HSN code, Rates of GST and e – way bill [15]

Chapter 3: Software's for GST

- 3.1) Terms in filling in GST return
- 3.2) Reverse Charge Mechanism
- 3.3) Calculation of Compensation to States [15]

Chapter 4: GSTN

- 4.1) History and Introduction
- 4.2) Careers in GSTN
- 4.3) Introduction Filling up GST form [15]

Practical

Practical Paper 1: Mathematics (FMGP1)

- I) Solving Ratio problems
- II) Roots of linear equation in one variable
- III) Calculating area of circle, triangle, rectangle etc.
- IV) System of Linear equation – I
- V) System of Linear equation – II
- VI) Linear Programming Problems – I
- VII) Linear Programming Problems – II
- VIII) Profit and Loss
- IX) Simple Interest
- X) Compound Interest
- XI) Shares
- XII) Dividend
- XIII) Accounting equation – I
- XIV) Financial Accounting
- XV) Cost Accounting

Practical Paper 2: Finance (FMGP2)

- I) Indirect Tax Calculation – I
- II) Indirect Tax Calculation – II
- III) Direct Tax Calculation – I
- IV) Direct Tax Calculation – II
- V) Comparing GDP in various aspects – I
- VI) Comparing GDP in various aspects – II
- VII) Comparing GNI in various aspects – I
- VIII) Comparing GNI in various aspects – II
- IX) IMF Loans – I
- X) IMF Loans – II
- XI) Codes in Banking Systems – I
- XII) Codes in Banking Systems – II
- XIII) Portfolio
- XIV) Mutual Funds
- XV) SIP

Practical Paper 3: Finance (FMGP3)

- I) ITR - I
- II) ITR - II
- III) ITR - III
- IV) Filling ITR form
- V) Pre - GST
- VI) Post - GST
- VII) Calculating CGST and SGST
- VIII) HSN code and Rates of GST
- IX) GST - I
- X) GST - II
- XI) GST - III
- XII) GST - IV
- XIII) GST -V
- XIV) Calculating compensation in GST
- XV) GSTN