## AnnexureB FACULTY OF ECONOMICS AND BUSINESS

# **SYLLABUS**

of

Bachelor of Science (Economics) (Semester III-Vl) (Under Continuous Evaluation System)

Session: 2023-2025



# The Heritage Institution KANYA MAHA VIDYALAYA JALANDHAR (Autonomous)

## **Program Specific Outcome – Bachelor of Science (Economics)**

B.Sc. (Economics) is a three-year graduation degree program. The program aims at the creation and dissemination of knowledge regarding core economic principles and issues; focusing on the link between theory and the real world.

## Upon successful completion of this course, students will be able to:

- **PSO1:** understand the basic concepts and principles of economics.
- **PSO2:** have in-depth knowledge of concepts and basic theories of consumer behaviour, cost and market structure, and production behaviour.
- **PSO3:** have in-depth knowledge of concepts and basic macroeconomics theories such as employment, consumption, investment and international trade, money, banking, development and public finance.
- **PSO4:** understand basic techniques of presentation and analysis of data; and some advanced applications and theory of theoretical and sampling distribution and econometric estimation methodologies.
- **PSO5:** understand Indian experience with planning and various problems faced by the Indian economy and the latest developments in the Indian economy.

## SCHEME AND CURRICULAM OF EXAMINATION OF THREE YEAR DEGREE PROGRAM <u>Bachelor of Science (Economics)</u> Session: 2023-2025

	Semester III										
G	C. L.			T	Course		Mar	ks		Examination	
Course	Code	Cou			Туре	Total	Ex L	xt. P	C A	time (in Hours)	
BECL-34 BECL-34 BECL-34	ECL-3421Punjabi(Compulsory)ECL-3031'Basic PunjabiECL-3431'Punjab History and Culture		С	50	40	-	10	3			
BECL-3	3212	English	(Con	npulsory)	С	50	40	-	10	3	
BECM-	3333	Mathematics	Ι	(Analysis)	E	100	80	-	20	3+3	
		Wrathematics	Π	(Analytical Geometry)			(40+40)				
BECL-3	3453	<b>Quantitat</b> (Quantitativ	ive T e Tec	' <b>echniques</b> chniques-III)	Е	100	80	-	20	3	
BECM-		Computer S Oriented Num M	cienc erical ethoc	<b>ce</b> (Computer and Statistical ds)		100	50	30	20		
3134	(P)	Computer S Oriented Num Methods)	cienc erical (PRA	e (Computer and Statistical CTICAL)						3+3	
BECM-		Compute (Vocational)(	r Ap Oper	<b>plications</b> rating System)							
3124	(P)	Computer App System (	olicat PRA(	ions (Operating CTICAL)	E	100	50	30	20	3+3	
BECL-3	3175	Economics (Inc	lian E	Economy)	C	100	80	-	20	3	
AECE-3221 *Environmental Studies (compulsory)		AC	100	60	20	20	3				
SECP-3512 * Personality Development		AC	25	20	-	5	1				
	Total						400	)			

**C-Compulsory** 

**E-Elective** 

**AC- Audit Course** 

<sup>1</sup> Special paper in lieu of Punjabi (Compulsory).

<sup>2</sup> Special paper in lieu of Punjabi (Compulsory) for those students who are not domicile of Punjab.

## Kanya Maha Vidyalaya, Jalandhar (Autonomous) SCHEME AND CURRICULAM OF EXAMINATION OF THREE YEAR DEGREE PROGRAM <u>Bachelor of Science (Economics)</u> <u>Session: 2023-2025</u>

	Semester IV										
G	a ı			N	Course	Marks				Examination	
Course	Code	Cou	irse	Name	Туре	Total	E E	ct. P	C A	time (in Hours)	
BECL-4 BECL-4 BECL-4	4421 4031 431	Punjal <sup>1</sup> B <sup>2</sup> Punjab H	oi(Co asic I istory	mpulsory) Punjabi 7 and Culture	С	50	40	-	10	3	
BECL-4	ECL-4212 English (Compulsory)		С	50	40	-	10	3			
BECM-	4333	Mathematics	Ι	Statics and Vector Calculus	Е	100	80 (40+40)	-	20	3+3	
			II	Solid Geometry							
BECL-4	1453	Quantita (Quantitativ	<b>tive</b> ' ve Te	<b>Techniques</b> echniques-IV)	Е	100	80	-	20	3	
DECM		Computer Sci	ence	(Data Structures)							
4134	(P)	Computer Sci (PR	ence ACT	(Data Structures) ICAL)	E	100	50	30	20	3+3	
BECM-		Computer App (Relational D	olicat ataba Syster	ions (Vocational) use Management ms)	E	100	50	30	20	2.2	
4124	(P)	Database Ma	<b>рпса</b> anage ACT	ement Systems) ICAL)						3+3	
		Economics (In	terna	ational Economics		100	80		20		
BECL-4175		and Pu	ıblic	Finance)	C			-		3	
SECS-4522 *Social Outreach		utreach	AC	25	-	20	5	1			
	Total						400	)			

**C-Compulsory** 

**E-Elective** 

**AC- Audit Course** 

<sup>1</sup> Special paper in lieu of Punjabi (Compulsory).

<sup>2</sup> Special papers in lieu of Punjabi (Compulsory) for those students who are not domicile of Punjab.

## Kanya Maha Vidyalaya, Jalandhar (Autonomous) SCHEME AND CURRICULAM OF EXAMINATION OF THREE YEAR DEGREE PROGRAM

	Semester V										
C	<b>~</b> •	G	•		Course		Mark	s		Examination	
Course (	Code	Cour	se Na	ame	Туре	Total	Ex L	xt. P	C A	(in Hours)	
BECL-54 BECL-50 BECL-54	421 031 431	Punjabi( <sup>1</sup> Bas <sup>2</sup> Punjab Hist	Com ic Pu tory a	pulsory) njabi nd Culture	С	50	40	-	10	3	
BECL-5	BECL-5212 English (Compulsory)		C	50	40	-	10	3			
BECM-5	5333	Mathematics	Ι	Dynamics	- E	100	80 (40+40)	-	20	3+3	
			II	Number Theory							
BECL-5	453	<b>Quantitati</b> (Quantitative	ve To e Tec	e <b>chniques</b> hniques-V)	E	100	80	-	20	3	
BECM- 5134	(P)	Computer Se Managem Computer Se Managem (PRA	cience nent S cience nent S CTIC	e ( Database ystems) e ( Database ystems) AL.)	Е	100	50	30	20	3+3	
BECM- 5124	(P)	Computer (Vocational) Des Computer App and Web (PRA	(PRACTICAL) Computer Applications (Vocational) (Internet and Web Designing ) Computer Applications (Internet and Web Designing ) (PRACTICAL)		- Е	100	50	30	20	3+3	
BECL-5	5175	<b>Economics</b> Deve	( Ec	onomics of ent)	С	100	80	-	20	3	
SECI-5541		*Innovation, and Creat	Entre ive T	preneurship Thinking	AC	25	20	-	5	1	
	Total						400				

## Bachelor of Science (Economics) Session: 2023-2025

**C-Compulsory** 

**E-Elective** 

**AC- Audit Course** 

<sup>1</sup> Special paper in lieu of Punjabi (Compulsory).

<sup>2</sup> Special paper in lieu of Punjabi (Compulsory) for those students who are not domicile of Punjab.

## Kanya Maha Vidyalaya, Jalandhar (Autonomous) SCHEME AND CURRICULAM OF EXAMINATION OF THREE YEAR DEGREE PROGRAM **Bachelor of Science (Economics)** Session: 2023-2025

	Semester VI										
	a ı		N		Course		Mark	s		Examination	
Course	Code	Cour	se N	ame	Туре	Total	Ex L	xt. P	C A	time (in Hours)	
BECL-6 BECL-6	BECL-6421Punjabi(Compulsory)3ECL-6031 <sup>1</sup> Basic Punjabi6ECL-6431 <sup>2</sup> Punjab History and Culture		С	50	40	-	10	3			
BECL-6	5212	English (	Com	pulsory)	C	50	40	-	10	3	
BECM-	6333	Mathematics	I II	Linear Algebra Numerical	- Е	100	80 (40+40)	-	20	3+3	
BECL-6453		Quantitative Techniques       (Quantitative Techniques-VI)		E	100	80	-	20	3		
BECM- 6134	(P)	Computer Sci Tech Computer Sci Technology)	ience molo ence	(Information gy) (Information	Е	100	50	30	20	3+3	
BECM- 6124	(P)	Technology) (PRACTICAL)         Computer Applications         (Vocational) (Business Data         Processing)         Computer Applications (Business         Data Processing) (PRACTICAL)		E	100	50	30	20	3+3		
BECL-6175		Economics (Qu for Economists)	antita	ative Methods	С	100	80	-	20	3	
	Total						400				

**C-Compulsory** 

E-Elective

 <sup>1</sup> Special paper in lieu of Punjabi (Compulsory).
 <sup>2</sup> Special paper in lieu of Punjabi (Compulsory) for those students who are not domicile of Punjab.

## Bachelor of Science (Economics) Semester –III Session 2023-2025 Course Code: BECL-3175 Economics (Indian Economy)

## **Course Outcomes:**

After passing this course students will be able to:

- **CO1:** understand the nature, importance and problems of Indian agriculture and new agriculture strategy and WTO agreements related to Indian agriculture.
- **CO2:** understand critically the industrial development in India, the role of public & private sectors and of the cottage and small industries and the latest industrial policy.
- **CO3:** understand the composition, direction and volume of international trade along with the balance of payment problems and the role of foreign capital MNCs.
- **CO4:** understand major economic problems of the Indian economy, Indian Taxation System, and Indian economic planning its objectives, strategy and evaluation.

## Bachelor of Science (Economics) Semester –III Session 2023-2025 Course Code: BECL-3175 Economics (Indian Economy)

**Time: 3 Hours** 

Max. Marks: 100 Theory: 80 CA: 20

## Note: Instructions for the Paper–Setter:

Two questions, each carrying 16 marks, from each of the Units I-IV (i.e. a total of eight questions) are to be set. Candidates are required to attempt five questions, selecting at least one from each unit. The fifth question may be attempted from any unit.

#### UNIT- I

Nature of Indian Economy; Agriculture in India: Nature and Importance of Agriculture, Causes of Decline in Productivity, Sustainable Agricultural Growth, Green Revolution and New Agricultural Strategy, WTO and Indian Agriculture (Introductory).

#### UNIT- II

Industry: Performance and Problems of Industrial Development; Public Sector versus Private Sector, Role of Privatization, Role of Small and Cottage Industries, Latest Industrial Policy.

#### UNIT-III

Foreign Trade: Direction and Composition of Exports and Imports since 1991; Recent Foreign Trade Policy, Balance of Payment Problem, Foreign Capital and Multinational Corporations in India Economic Reforms and its implications.

#### . UNIT- IV

Features of Population Growth in India, Major Problems of the Economy – Inflation, Unemployment, Poverty and Inequality., Current Indian Tax Structure. Planning- Objectives, Strategy, Evaluation of Planning in India; A Brief Idea of Objectives, Targets, Resources of the Latest Five Year Plan (Twelfth Five Year Plan).

#### **Suggested Readings:**

1. Mishra, S.K. and Puri, V.K. (2019), Indian Economy, Himalaya Publication House, Mumbai.

2. Dutt, R. and Sundharam, K.P.M. (2018), Indian Economy, S. Chand & Co. Ltd., New Delhi.

3. Aggarwal, A. N. (1975), Indian Economy, Vikas Publishing House, Delhi.

4. Wadhwa, C. D. (1980), Indian Economic Policy, Tata McGraw Hill, Bombay.

## Bachelor of Science (Economics) Semester –III Session 2023-2025 Course Code: BECL-3453 Quantitative Techniques (Quantitative Techniques–III )

#### **Course outcomes:**

After passing this course students will be able to:

- **CO1:** understand and apply the concept of differentiation in economic applications such as profit maximization, cost minimization or utility optimization.
- **CO2:** understand and apply the concept of indefinite and definite integrals to economic concepts like consumer and producer surplus.
- CO3: explain and use matrix operations to solve the system of equations.
- **CO4:** understand the basics of linear programming for the efficient computation of optimal solutions to problems in decision-making.

## **Bachelor of Science (Economics) Semester –III** Session 2023-2025 **Course Code: BECL-3453**

**Time: 3 Hours** 

Quantitative Techniques (Quantitative Techniques-III)

Max. Marks: 100 Theory: 80 CA: 20

## Note: Instructions for the Paper–Setter:

Two questions, each carrying 16 marks, from each of the Units I-IV (i.e. a total of eight questions) are to be set. Candidates are required to attempt five questions, selecting at least one from each unit. The fifth question may be attempted from any unit.

### UNIT-I

Differentiation: Maxima and Minima of Functions, Partial derivatives, higher order partial derivatives.

### UNIT-II

Integration (Excluding Trigonometric and Inverse Functions): Indefinite Integrals; Integration by Partial Fractions; Integration by substitution; Integration by parts; Definite Integrals; Application of Integration in Consumer Surplus and Producer Surplus.

### UNIT-III

Matrices: Definition, Types, Addition, Subtraction and Multiplication of Matrices, Scaler Multiplication, Transposition, Determinants and their Properties, Minors and Co-factors, Rank of a Matrix, Inverse of a Matrix, Crammer's Rule for Solution of Simultaneous system of equations; Applications of matrices in economics.

#### UNIT-IV

Linear Programming: Formulation of problem, Assumptions, Graphical solution, Simplex method, Use of Artificial Variables, Dual Simplex method. Input-Output Analysis: Basic concepts, Input-Output tables for closed and open economies, Leontief Basic Input-Output Model, Simple Applications of Input-Output Analysis.

#### **Suggested Readings:**

- 1. Rangi, S.S. and Chowdhary, V. (2013), Mathematical Techniques, S. Vikas s& Co. Publishing House, India.
- 2. Allen, R.G.D.(1938), Mathematical Analysis for Economists, ELBS and Macmillan Press, New York.

3. Chiang, A.(1967), Fundamental Methods of Mathematical Economics, McGraw Hill.

## Bachelor of Science (Economics) Semester –IV Session 2023-2025 Course Code: BECL-4175 Economics (International Economics and Public Finance)

## **Course outcomes:**

After studying this course, students will be able to:

- **CO1:** understand the basis of and gains from international trade and basic understanding of terms of trade and commercial policy and also WTO agreements related to trade.
- **CO2:** understand the basic concept of BOP and methods to correct disequilibrium and determination of exchange rate.
- **CO3:** understand the basics of public finance and public expenditure.
- **CO4:** understand taxes and the burden of public debt.

## Bachelor of Science (Economics) Semester –IV Session 2023-2025 Course Code: BECL-4175 Economics (International Economics and Public Finance)

**Time: 3 Hours** 

Max. Marks: 100 Theory: 80 CA: 20

#### Note: Instructions for the Paper–Setter:

Two questions, each carrying 16 marks, from each of the Units I-IV (i.e. a total of eight questions) are to be set. Candidates are required to attempt five questions, selecting at least one from each unit. The fifth question may be attempted from any unit.

UNIT-I

**International Trade:** Internal and External Trade, Classical and Heckscher-Ohlin Theories, Gains from Trade, Terms of Trade, (gross, net and income terms of trade).Trade and economic development. **Commercial Policy:** Free trade vs. protection, rationale of a protectionist policy in less developed area, GATT & WTO (Introductory).

#### UNIT-II

**Balance of Payments:** Meaning and components of balance of payments, Methods for Correcting adverse balance of payments, devaluation and direct control.

**Rate of Exchange:** Meaning and determination (PPP and BOP Theory), Fixed and flexible exchange rates.

#### UNIT-III

Public Finance: Nature, scope, importance.

**Public Expenditure:** Meaning, principles, importance, effect of public expenditure on production and distribution.

#### UNIT-IV

**Taxes:** Meaning, classification, features of a good taxation system, canons of taxation, incidence and impact of taxation.

Public Debt: Meaning, objectives, importance, its burden.

#### **Suggested Readings:**

1. Sodersten, B.O. (1970), International Economics, Macmillan, London.

2. Salvatore, D. and Reed, G. (1983), *International Economics*, Macmillan Publishing Company, New York.

3. Tyagi, B.P. (2004), Public Finance, Jai Prakash Nath & Company, Meerut.

## Bachelor of Science (Economics) Semester –IV Session: 2023-2025 Course Code: BECL-4453 Quantitative Techniques–IV

## **Course outcomes:**

After passing this course students will be able to:

- **CO1:** understand the concept of correlation and regression, and learn how to apply these statistical techniques in practice
- **CO2:** understand the axiomatic formulation of modern probability theory and think of random variables as an intrinsic need for analysis of random phenomena.
- **CO3:** recognize the connection between theory and applications by appropriately fitting, assessing and interpreting the results/ outcomes
- **CO4:** understand the basic principles underlying survey design and estimation.

#### Bachelor of Science (Economics) Semester –IV Session 2023-2025 Course Code: BECL-4453 Quantitative Techniques (Quantitative Techniques–IV )

**Time: 3 Hours** 

Max. Marks: 100 Theory: 80 CA: 20

#### Note: Instructions for the Paper–Setter:

Two questions, each carrying 16 marks, from each of the Units I-IV (i.e. a total of eight questions) are to be set. Candidates are required to attempt five questions, selecting at least one from each unit. The fifth question may be attempted from any unit.

#### UNIT-I

Multiple Linear Regression: Concepts, Estimation and Applications (without derivations). Partial and Multiple Correlation. Non-Linear Regression: Quadratic and Exponential; Estimation of Fitting of Various Growth Curves (Modified Exponential, Gompertz).

#### UNIT-II

Probability: Definition, Additive & Multiplicative Laws and their Applications, Bayes Theorem, Concept of Random Variable, Probability Mass Function & Density Function, Mathematical Expectation (meaning and properties), Moments, Moment Generating Function and Characteristic Function.

#### UNIT-III

Theoretical Probability Distributions: Derivations of the properties of Binomial (with numerical), Poisson (with numerical), Normal (with numerical), Beta and Gamma Distributions.

#### UNIT-IV

Sampling: Various concepts – Population, Sampling Units, Complete Enumeration sample Surveys, Concept of an Estimator and The Standard Error, Standard Error of Estimates. Features of a Good Sample, Random and Subjective Sampling, Simple Random Sampling (with and without replacement), Stratified Random sampling (applications only).

#### **Suggested Readings:**

- 1. Gupta, S.C. (2018), Fundamentals of Statistics, Himalaya Publishing House, 7th Edition, Delhi
- 2. Gupta, S.P. (2014), Statistical Methods, Sultan Chand & Sons, 43rd Edition, Delhi
- 3. Rangi, S. S. and Nayyar, R.K. (2014), Statistical Techniques (Vol. II), S. Vikas and Company, India.

3. Siegel, Andrew F. (2002), Practical Business Statistics, International Edition, 5th Edition, McGraw Hill Irwin.

## Bachelor of Science (Economics) Semester –V Session 2023-2025 Course Code: BECL-5175 Economics (Economics of Development)

## **Course outcomes:**

After passing this course students will be able to:

- **CO1:** learn the measurement of economic development and understand the economic problems of developing and least developed countries
- **CO2:** examine the models of growth critically and recognize the importance of their underlying assumptions
- **CO3:** analyze the different strategies of economic development and policy implications of export promotion and import substitution strategies
- **CO4:** understand the role of planning and contribution of capital formation and choice of techniques in the development of UDCs and their changing landscape after globalization and liberalization

## Bachelor of Science (Economics) Semester –V Session 2023-2025 Course Code: BECL-5175 Economics (Economics of Development)

**Time: 3 Hours** 

Max. Marks: 100 Theory: 80 CA: 20

## Note: Instructions for the Paper–Setter:

Two questions, each carrying 16 marks, from each of the Units I-IV (i.e. a total of eight questions) are to be set. Candidates are required to attempt five questions, selecting at least one from each unit. The fifth question may be attempted from any unit.

## UNIT-I

**Economic Development**: Meaning and Measurement, Economic and Non-Economic Factors, Characteristics of Developing and Least Developed Countries. Human Development Index, Concept of Sustainable Development.

Dualism: Social and Technological Dualism

Lewis Model of Unlimited Supply of Labour, Problems of Unemployment and Disguised Unemployment.

## UNIT-II

Models of Growth: Classical, Marxian, Schumpeter, Harrod-Domar and Solow.

## UNIT-III

Rostow's theory of Stages of Growth

**Strategies of Economic Development**-Balanced vs. Unbalanced Growth; Theory of Big Push; Leibenstein's Critical Minimum Efforts Thesis

Export Promotion and Import Substitution.

## UNIT-IV

Capital Formation – Meaning and Sources; Choice of Technique

**Role of Planning in Under Developed Countries**, Need, Objective, Strategy, Types and Problems of Planning.

## **Suggested Readings:**

- 1. Meier, G.M.(1995), *Leading Issues in Economic Development*, Oxford University Press, Delhi.
- 2. Thirlwall, A.P. (2011), Economics of Development, Palgrave Macmillan.
- 3. Todaro, M.P. and Smith, S.C. (2018), Economic Development, Pearson India
- 4. Misra and Puri (2016), *Economics of Development and Planning*, Himalaya Publishing House, New Delhi

5. Jhingan, M.L.(2011), *The Economics of Development and Planning*, Vrinda Publications Pvt. Ltd., Delhi

## Bachelor of Science (Economics) Semester–V Session 2023-2025 Course Code: BECL-5453 Quantitative Techniques (Quantitative Techniques–V )

## **Course outcomes:**

After the successful completion of this course, the students will be able to

**CO1:** understand the basics of methods of estimation and the process of formulation and of testing the hypothesis.

CO2: understand the theoretical details of sampling distributions

**CO3:** understand the basic applications of sampling distributions.

CO4: understand ANOVA to split and analyze the variations in economic phenomenon.

## Bachelor of Science (Economics) Semester–V Session 2023-2025 Course Code: BECL-5453 Quantitative Techniques (Quantitative Techniques–V )

**Time: 3 Hours** 

Max. Marks: 100 Theory: 80 CA: 20

#### Note: Instructions for the Paper–Setter:

Two questions, each carrying 16 marks, from each of the Units I-IV (i.e. a total of eight questions) are to be set. Candidates are required to attempt five questions, selecting at least one from each unit. The fifth question may be attempted from any unit.

## UNIT-I

**Statistical Inference**: Point & Interval Estimation, Properties of a Good Estimator, Maximum Likelihood Method of Estimation and derivation of mean and variance of Binomial, Poisson and Normal distributions using MLE. Basic Concepts of Null and Alternative Hypotheses, Types of Errors, One-Tailed and Two-Tailed Tests, Power of Test, Critical Region.

## UNIT-II

Sampling Distributions: Derivation of properties of Z, T, Chi-Square and F distributions.

## UNIT-III

Tests of significance based upon the distribution of Z, t, F and Chi-square.

## UNIT-IV

**Analysis of Variance:** Introduction, Assumptions, Techniques of Analyzing Variance-Analysis of Variance of one-way and two-way classification.

### **Suggested Readings:**

1. Gupta and Kapoor(2014), Fundamentals of Mathematical Statistics, Sultan Chand & Sons, New Delhi

2. Rangi S.S.(2016), Statistical Techniques, S. Vikas &Co. (Publishing House) India.

## Bachelor of Science (Economics) Semester –VI Session 2023-2025 Course Code: BECL-6175 Economics (Quantitative Methods for Economists)

## **Course outcomes:**

After passing this course students will be able to:

CO1: learn basic techniques of mathematics and their applications in economics

**CO2:** analyze data by using means of central tendency and dispersion.

**CO3:** understand the shapes of the curve and the relationship between variables by using techniques of skewness, kurtosis, and correlation and learn prediction and forecasting by using regression

**CO4:** calculate relative changes in the magnitude of related variables and also missing values within the data.

## Bachelor of Science (Economics) Semester –VI Session 2023-2025 Course Code: BECL-6175 Economics (Quantitative Methods for Economists)

Time: 3 Hours

Max. Marks: 100 Theory: 80 CA: 20

## Note: Instructions for the Paper–Setter:

Two questions, each carrying 16 marks, from each of the Units I-IV (i.e. a total of eight questions) are to be set. Candidates are required to attempt five questions, selecting at least one from each unit. The fifth question may be attempted from any unit.

UNIT-I

Sets, Relations and functions, Derivative of simple functions only (excluding log & exponential functions).Maxima/Minima for single variable functions. Introduction to Matrices - definition, properties & inverse.

UNIT-II

Measures of Central Tendency — Mean, Mode, Median and Geometric Mean; Measures of Dispersion.

#### UNIT-III

Concepts and Measure of Skewness and Kurtosis: Boyle's & Karl Pearson's measures. Simple Correlation & Regression (ungrouped & grouped data).

#### UNIT-IV

Interpolation: Concepts and Methods — Binomial expansion, Newton and Lagrange's Method (with emphasis on missing values only). Price Index Numbers–Weighted and Unweighted Index Numbers, various formulae and consistency tests.

#### **Suggested Readings**

1. Gupta, S.P. (2014), Statistical Methods, Sultan Chand & Sons, New Delhi.

- 2. Gupta, S.C. (2018), Fundamentals of Statistics, Himalaya Publishing House, New Delhi
- 3. Elhance, D.N. and Elhance, V. (2018), Fundamentals of Statistics, Kitab Mahal, Allahabad
- 4. Croxton, F.E., Cowden D.J. and Klein. S. (1973), *Applied General Statistics*, 3rd. Ed., Prentice Hall of India, New Delhi.

5. Nagar, A.L. and Das, R.K. (1976), Basic Statistics, Oxford University Press, Bombay.

6. Aggarwal, C.S and Joshi, S.C.(2017) ,*Mathematics for Students of Economics*, New Academic Publishing Co., Jalandhar

## Bachelor of Science (Economics) Semester–VI Session 2023-2025 Course Code: BECL-6453 Quantitative Techniques (Quantitative Techniques–VI)

## **Course outcomes:**

After passing this course students will be able to:

- **CO1:** understand the nature and methodology of econometrics.
- **CO2:** understand the OLS procedure of estimation of the model and tests of significance.
- CO3: understand the nature and solutions of problems associated with the estimation of regression
- **CO4:** understand the basics of dummy variables and estimation of models with lags.

## Bachelor of Science (Economics) (Semester–VI) Session 2023-2025 Course Code: BECL-6453 Quantitative Techniques (Quantitative Techniques–VI)

Time: 3 Hours

Max. Marks: 100 Theory: 80 CA: 20

## Note: Instructions for the Paper–Setter:

Two questions, each carrying 16 marks, from each of the Units I-IV (i.e. a total of eight questions) are to be set. Candidates are required to attempt five questions, selecting at least one from each unit. The fifth question may be attempted from any unit.

#### Unit – I

Definition, Scope and Nature of Econometrics. Simple Linear Regression Model (OLS method) with applications

#### Unit – II

General Linear Regression Model: assumptions, properties (BLUE). Gauss-Markov Theorem (Two Variable and K-variable). Concepts of R<sup>2</sup> and Adjusted R<sup>2</sup>, Test of Significance (Stress on Numericals)

#### Unit – III

Econometric Problems of Heteroscedasticity and Multicollinearity in the Regression Analysis: Sources, Consequences, Tests and Remedial Measures. Specification Bias.

#### Unit – IV

Problem of Auto-Correlation in the Regression Analysis: Sources, Consequences, Tests and Remedial Measures. Distributed Lag Models and Auto-Regressive Models (Introductory). Dummy Variable Technique and its uses.

Software:

SPSS - Defining Variable and Entering Data, Estimation of Regression.

#### **Suggested Readings:**

1. Madnani GMK, (2015), Introduction of Econometrics, Oxford and IBH Publishing, N. Delhi.

2. Koutsoyiannis, A, (2001), Theory of Econometrics, The Macmillan Press Ltd., London.

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# FACULTY OF ECONOMICS & BUSINESS

# **SYLLABUS**

For Bachelor of Arts Economics (Semester: III-VI)

(Under Continuous Evaluation System) (12+3 System of Education) Session: 2022–25



# The Heritage Institution Kanya Maha Vidyalaya, Jalandhar (Autonomous)

## SCHEME AND CURRICULAM OF EXAMINATION OF THREE YEAR DEGREE PROGRAM Bachelor of Arts Session 2023-2025

## **Economics**

Semester III								
		Marks		r	Examination			
Course Code	Course Name	Course	<b>T</b> ( )	Ext.			time	
		Гуре	Total	L	Р	CA	(in Hours)	
BARL- 3175	Economics (Indian Economy)	Е	100	80		20	3	

Semester IV								
				Marl		Examination		
Course Code	Course Nome	Course		Ext.				
Course Coue	Course Maine	туре	Total	L	Р	CA	(in Hours)	
BARL-4175	Economics (International Economics and Public Finance)	Е	100	80		20	3	

**E-Elective** 

## SCHEME AND CURRICULAM OF EXAMINATION OF THREE YEAR DEGREE PROGRAM Bachelor of Arts Session 2023-2025

## **Economics**

Semester V									
			Marks				Examination		
Course	Course Name	Course	T ()	Ext.			time		
Code		Гуре	Total	L P		CA	(in Hours)		
BARL-5175	Economics (Economics of Development)	Е	100	80	-	20	3		

Semester VI								
		~	Marl	ks		Examination		
Course Code	Course Nome	Course		Ext.				
	Course maine	Type	Total	L	Р	CA	(in Hours)	
BARL-6175	Economics (Quantitative Methods for Economists)	Е	100	80	-	20	3	

## **E-Elective**

## Bachelor of Arts (Semester–III) Session 2023-2025 Course Code: BARL-3175 Economics (Indian Economy)

## **Course Outcomes:**

After passing this course students will be able to:

- **CO1:** understand the nature, importance and problems of Indian agriculture and new agriculture strategy and WTO agreements related to Indian agriculture.
- **CO2:** understand critically the industrial development in India, the role of public & private sectors and of the cottage and small industries and the latest industrial policy.
- **CO3:** understand the composition, direction and volume of international trade along with the balance of payment problems and the role of foreign capital MNCs.
- **CO4:** understand major economic problems of the Indian economy, Indian Taxation System, and Indian economic planning its objectives, strategy and evaluation.

## Bachelor of Arts (Semester–III) Session 2023-2025 Course Code: BARL-3175 Economics (Indian Economy)

**Time: 3 Hours** 

Max. Marks: 100 Theory: 80 CA: 20

### Note: Instructions for the Paper–Setter:

Two questions, each carrying 16 marks, from each of the Units I-IV (i.e. a total of eight questions) are to be set. Candidates are required to attempt five questions, selecting at least one from each unit. The fifth question may be attempted from any unit.

#### UNIT- I

Nature of Indian Economy; Agriculture in India: Nature and Importance of Agriculture, Causes of Decline in Productivity, Sustainable Agricultural Growth, Green Revolution and New Agricultural Strategy, WTO and Indian Agriculture (Introductory).

#### UNIT- II

Industry: Performance and Problems of Industrial Development; Public Sector versus Private Sector, Role of Privatization, Role of Small and Cottage Industries, Latest Industrial Policy.

### UNIT-III

Foreign Trade: Direction and Composition of Exports and Imports since 1991; Recent Foreign Trade Policy, Balance of Payment Problem, Foreign Capital and Multinational Corporations in India, Economic Reforms and its implications.

#### **UNIT-IV**

Features of Population Growth in India, Major Problems of the Economy – Inflation, Unemployment, Poverty and Inequality., Current Indian Tax Structure. Planning- Objectives, Strategy, Evaluation of Planning in India; A Brief Idea of Objectives, Targets, Resources of the Latest Five Year Plan (Twelfth Five Year Plan).

#### **Suggested Readings:**

1. Mishra, S.K. and Puri, V.K. (2019), Indian Economy, Himalaya Publication House, Mumbai.

2. Dutt, R. and Sundharam, K.P.M. (2018), Indian Economy, S. Chand & Co. Ltd., New Delhi.

3. Aggarwal, A. N. (1975), Indian Economy, Vikas Publishing House, Delhi.

4. Wadhwa, C. D. (1980), Indian Economic Policy, Tata McGraw Hill, Bombay.

## Bachelor of Arts (Semester –IV) Session 2023-2025 Course Code: BARL-4175 Economics (International Economics and Public Finance)

## **Course outcomes:**

After studying this course, students will be able to:

- **CO1:** understand the basis of and gains from international trade and basic understanding of terms of trade and commercial policy and also WTO agreements related to trade.
- **CO2:** understand the basic concept of BOP and methods to correct disequilibrium and determination of exchange rate.
- **CO3:** understand the basics of public finance and public expenditure.
- **CO4:** understand taxes and the burden of public debt.

## Bachelor of Arts (Semester –IV) Session 2023-2025 Course Code: BARL-4175 Economics (International Economics and Public Finance)

**Time: 3 Hours** 

Max. Marks: 100 Theory: 80 CA: 20

#### Note: Instructions for the Paper–Setter:

Two questions, each carrying 16 marks, from each of the Units I-IV (i.e. a total of eight questions) are to be set. Candidates are required to attempt five questions, selecting at least one from each unit. The fifth question may be attempted from any unit.

#### UNIT-I

**International Trade:** Internal and External Trade, Classical and Heckscher-Ohlin Theories, Gains from Trade, Terms of Trade, (gross, net and income terms of trade).Trade and economic development. **Commercial Policy:** Free trade vs. protection, rationale of a protectionist policy in less developed area, GATT & WTO (Introductory).

#### UNIT-II

**Balance of Payments:** Meaning and components of balance of payments, Methods for Correcting adverse balance of payments, devaluation and direct control.

**Rate of Exchange:** Meaning and determination (PPP and BOP Theory), Fixed and flexible exchange rates.

#### UNIT-III

Public Finance: Nature, scope, importance.

**Public Expenditure:** Meaning, principles, importance, effect of public expenditure on production and distribution.

#### UNIT-IV

**Taxes:** Meaning, classification, features of a good taxation system, canons of taxation, incidence and impact of taxation.

Public Debt: Meaning, objectives, importance, its burden.

#### **Suggested Readings:**

1. Sodersten, B.O. (1970), International Economics, Macmillan, London.

2. Salvatore, D. and Reed, G. (1983), *International Economics*, Macmillan Publishing Company, New York.

3. Tyagi, B.P. (2004), Public Finance, Jai Prakash Nath & Company, Meerut.

## Bachelor of Arts (Semester–V) Session: 2023-2025 Course Code: BARL-5175 Economics (Economics of Development)

## **Course outcomes:**

After passing this course students will be able to:

- **CO1:** learn the measurement of economic development and understand the economic problems of developing and least developed countries
- **CO2:** examine the models of growth critically and recognize the importance of their underlying assumptions
- **CO3:** analyze the different strategies of economic development and policy implications of export promotion and import substitution strategies
- **CO4:** understand the role of planning and contribution of capital formation and choice of techniques in the development of UDCs and their changing landscape after globalization and liberalization

## Bachelor of Arts (Semester–V) Session 2023-2025 Course Code: BARL-5175 Economics (Economics of Development)

Time: 3 Hours

Max. Marks: 100 Theory: 80 CA: 20

## Note: Instructions for the Paper–Setter:

Two questions, each carrying 16 marks, from each of the Units I-IV (i.e. a total of eight questions) are to be set. Candidates are required to attempt five questions, selecting at least one from each unit. The fifth question may be attempted from any unit.

### UNIT-I

**Economic Development**: Meaning and Measurement, Economic and Non-Economic Factors, Characteristics of Developing and Least Developed Countries. Human Development Index, Concept of Sustainable Development.

Dualism: Social and Technological Dualism

Lewis Model of Unlimited Supply of Labour, Problems of Unemployment and Disguised Unemployment.

## UNIT-II

Models of Growth: Classical, Marxian, Schumpeter, Harrod-Domar and Solow.

## UNIT-III

Rostow's theory of Stages of Growth

**Strategies of Economic Development**-Balanced vs. Unbalanced Growth; Theory of Big Push; Leibenstein's Critical Minimum Efforts Thesis

Export Promotion and Import Substitution.

#### UNIT-IV

Capital Formation – Meaning and Sources; Choice of Technique

**Role of Planning in Under Developed Countries**, Need, Objective, Strategy, Types and Problems of Planning.

### **Suggested Readings:**

- 1. Meier, G.M.(1995), *Leading Issues in Economic Development*, Oxford University Press, Delhi.
- 2. Thirlwall, A.P. (2011), Economics of Development, Palgrave Macmillan.
- 3. Todaro, M.P. and Smith, S.C. (2018), Economic Development, Pearson India
- 4. Misra and Puri (2016), *Economics of Development and Planning*, Himalaya Publishing House, New Delhi

5. Jhingan, M.L.(2011), *The Economics of Development and Planning*, Vrinda Publications Pvt. Ltd., Delhi

## Bachelor of Arts (Semester –VI) Session 2023-2025 Course Code: BARL-6175 Economics (Quantitative Methods for Economists)

## **Course outcomes:**

After passing this course students will be able to:

CO1: learn basic techniques of mathematics and their applications in economics

**CO2:** analyze data by using means of central tendency and dispersion.

- **CO3:** understand the shapes of the curve and the relationship between variables by using techniques of skewness, kurtosis, and correlation and learn prediction and forecasting by using regression
- **CO4:** calculate relative changes in the magnitude of related variables and also missing values within the data.

## Bachelor of Arts (Semester –VI) Session 2023-2025 Course Code: BARL-6175 Economics (Quantitative Methods for Economists)

Time: 3 Hours

Max. Marks: 100 Theory: 80 CA: 20

## Note: Instructions for the Paper–Setter:

Two questions, each carrying 16 marks, from each of the Units I-IV (i.e. a total of eight questions) are to be set. Candidates are required to attempt five questions, selecting at least one from each unit. The fifth question may be attempted from any unit.

#### UNIT-I

Sets, Relations and functions, Derivative of simple functions only (excluding log & exponential functions).Maxima/Minima for single variable functions. Introduction to Matrices - definition, properties & inverse.

UNIT-II

Measures of Central Tendency — Mean, Mode, Median and Geometric Mean; Measures of Dispersion.

#### UNIT-III

Concepts and Measure of Skewness and Kurtosis: Boyle's & Karl Pearson's measures. Simple Correlation & Regression (ungrouped & grouped data).

#### UNIT-IV

Interpolation: Concepts and Methods — Binomial expansion, Newton and Lagrange's Method (with emphasis on missing values only). Price Index Numbers–Weighted and Unweighted Index Numbers, various formulae and consistency tests

#### **Suggested Readings**

1. Gupta, S.P. (2014), Statistical Methods, Sultan Chand & Sons, New Delhi.

- 2. Gupta, S.C. (2018), Fundamentals of Statistics, Himalaya Publishing House, New Delhi
- 3. Elhance, D.N. and Elhance, V. (2018), Fundamentals of Statistics, Kitab Mahal, Allahabad
- 4. Croxton, F.E., Cowden D.J. and Klein. S. (1973), *Applied General Statistics*, 3rd. Ed., Prentice Hall of India, New Delhi.

5. Nagar, A.L. and Das, R.K. (1976), Basic Statistics, Oxford University Press, Bombay.

6. Aggarwal, C.S and Joshi, S.C.(2017) ,*Mathematics for Students of Economics*, New Academic Publishing Co., Jalandhar

# FACULTY OF ECONOMICS & BUSINESS

# SYLLABUS

# of

Bachelor of Arts/ Bachelor of Science with Additional / Optional Course in Banking (Semester III - VI) (Under Continuous Evaluation System)





# The Heritage Institution KANYA MAHA VIDYALAYA JALANDHAR (Autonomous)

## B.Sc. (Economics) with banking as an Additional optional Subject

Students can opt Banking as an additional subject. In all semester students have to study one additional paper on the banking. The program aims to build solid knowledge base in all aspects related to banking regulation, financial structure along with economic principles and issues.

## Upon successful completion of this course, students will be able to:

- **PSO1:** develop mathematical, logical and analytical ability.
- **PSO2:** critically reflect on the causes and consequences of financial and banking crises.
- **PSO3:** prepare banking P.O. exams and take leadership & managerial roles in banking.

## SCHEME AND CURRICULAM OF EXAMINATION OF Bachelor of Arts/ Bachelor of Science with Additional / Optional Course in Banking Session: 2023-2025

Semester III								
				Marl	ks		Examination	
Course Code	Course Name	Course	Course	Ex	it.		time	
		Туре	Total	L	Р	CA	(in Hours)	
BARL- 3026 /BECL- 3026	Banking ( General Awareness)	0	100	80		20	2:00	

## **O-Optional**

## SCHEME AND CURRICULAM OF EXAMINATION OF Bachelor of Arts/ Bachelor of Science with Additional / Optional Course in Banking Session: 2023-2025

Semester IV									
			Marl	kS	-	Examination			
Course Code	Course Name	Course Type To		Ex	t.	~	time (in Hours)		
			Total	L P	Р	CA			
BARL- 4026 /BECL- 4026	Banking (Financial Markets and Institutions)	Ο	100	80		20	2:00		

## **O-Optional**

## SCHEME AND CURRICULAM OF EXAMINATION OF Bachelor of Arts/ Bachelor of Science with Additional / Optional Course in Banking Session: 2023-2025

Semester V									
				Marl	KS		Examination		
Course	Course Name	Course		Ext.			time		
Code		Туре	Total	L	Р	CA	(in Hours)		
BARL- 5026/ BECL- 5026	Banking (Quantitative Aptitude- I) I	О	100	80		20	2:00		

**O-Optional** 

## SCHEME AND CURRICULAM OF EXAMINATION OF Bachelor of Arts/ Bachelor of Science with Additional / Optional Course in Banking Session: 2023-2025

Semester VI									
	Course Name			Marl	ks		Examination		
Course Code		Course		Ext.		~ .	time		
		Туре	Total	L	P CA	CA	(in Hours)		
BARL- 6026/ BECL- 6026	Banking (Quantitative Aptitude- II)	0	100	80		20	2:00		

## **O-Optional**

## Bachelor of Arts/ Bachelor of Science with Additional / Optional Course in Banking Semester-III Session 2023-2025 Course Code: BARL-3026 / BECL-3026 Banking (General Awareness)

## **Course outcomes:**

After passing this course students will be able to:

CO1: understand the ancient, medieval, and modern history of India from the rise of the

Indus Valley civilization to the freedom struggle.

**CO2:** understand the general concept of the constitutional framework, importance, and structure of the judiciary system.

**CO3:** have an understanding of the Indian economy, the planning process in India, tax structure, and policies of the central government.

**CO4:** demonstrate in-depth familiarity with the current affairs related to social sciences.

## Bachelor of Arts/Bachelor of Science with Additional/Optional Course in Banking Semester-III Session 2023-2025 Course Code: BARL-3026 / BECL-3026 Banking (General Awareness)

Time: 2:00 hrs.

Max. Marks: 100 Theory: 80 Internal Assessment: 20

### Note: Instructions for the Paper–Setters/Examiners:

Sixty Multiple Choice Questions (MCQs), fifteen from each of the four Units (I-IV) are to be set. Each question carries 2 marks. Candidates are required to attempt forty (40) MCQs, selecting at least eight (8) MCQs from each unit. The remaining eight (8) MCQs may be attempted from any Unit.

### UNIT I

Indian History
Ancient History: The Indus Civilization- Harappan and Mohenjodaro, Vedic era.
Medieval history: Mahmud Ghaznavi, Delhi Sultanate, Mughal Dynasty.
Modern History: Establishment of Maratha Power, European powers, Foundation of British rule, Freedom Struggle.

## UNIT II

#### **Indian Polity**

**Indian constitution**: Historical Background, Preamble, Articles and Schedules, Citizenship, Fundamental Rights, Fundamental Duties and Directive Principles of State Policy. Election Commission. Judiciary System- High Court and Supreme Court. National Symbols.

## UNIT III

#### **Indian Economy**

Agriculture and Industrial policies of India. Planning- Five-year plans; NITI Aayog. Finance Commission. Taxation System- Direct taxes, Indirect taxes and GST. Fiscal Policy.

#### UNIT IV

**Current Affairs:** Annual Financial and Railway Budget, Introduction to Current Schemes and Policies implemented by Government, National and International Organizations: IMF, World Bank, ADB, ILO, UNO, UNESCO, SAARC, BRICS. Important days and dates. Current Cabinet Ministers and Governors.

## **Suggested Readings:**

 Lucent's. (2021), *General Knowledge*, Lucent Publications.
 Pandey, Manohar. (2021), General *Knowledge*, Arihant Publications. *Note: The latest editions of the books are recommended*..

## Bachelor of Arts/ Bachelor of Science with Additional / Optional Course in Banking (Semester IV) Session 2023-2025 Course Code: BARL-4026 / BECL-4026 Financial Markets and Institutions

## **Course outcomes:**

After passing this course students will be able to:

**CO1:**learn various measures of money supply ,and will learn the instruments of money market and its recent developments.

**CO2:** have in-depth knowledge of capital market and mutual funds.

**CO3:** learn the concepts of shares and debentures and working of Securities Exchange Board of India.

CO4: analyse and compare the working of banking and non-banking financial institutions.

## Bachelor of Arts/Bachelor of Science with Additional/Optional Course in Banking

## (Semester IV) Session 2023-2025 Course Code: BARL-4026 / BECL-4026 Financial Markets and Institutions

Time: 2:00 hrs

Max. Marks: 100 Theory: 80 CA: 20

## Note: Instructions for the Paper–Setters/Examiners:

Sixty Multiple Choice Questions (MCQs), fifteen from each of the four Units (I-IV) are to be set. Each question carries **2 marks**. Candidates are required to attempt forty (**40**) MCQs, selecting at least eight (**8**) MCQs from each unit. The remaining eight (**8**) MCQs may be attempted from any Unit.

## UNIT I

Money Supply in India: M1, M2, M3, M4, L1, L2, L3.

Money Market in India: Functions, Instruments-Certificates of deposits, Commercial papers, Treasury Bills and Call Money Markets.

Recent developments in Money market: Money Market Mutual Fund (MMMFs), DFHI, Liquidity Adjustment Facility (LAF), Clearing Corporation of India (CCIL), Repurchase Transaction (REP) Reserve Bank Directions 2018.

#### UNIT II

Capital Markets in India: Instruments of Primary Market, Secondary Market and Derivatives Market.

Mutual Funds: Meaning, Concept and Types of Mutual Funds.

#### UNIT III

Shares, Equity and Performance Shares, Debentures and Bonds. Security and Exchange Board of India (SEBI): Concept and its Working. Bombay Stock Exchange, National Stock Exchange, Over the Counter Exchange of India.

#### **UNIT IV**

Financial Institutions: Functions and Objectives.

Financial institutions for Agriculture: Commercial Banks, Land Development Banks, Regional Rural Banks (RRBs), Co-operative Credit Societies, NABARD.

Financial Institutions for Industry: IFCI, IDBI, ICICI, SIDBI, EXIM.

Non-Banking Financial Companies: Types and RBI Directions for NBFCs.

#### **Suggested Readings:**

1. Experts (2020), Banking Awareness, Arihant Publications.

2. Experts (2016), Financial Awareness for Competitive Exams, Disha Publication.

3. Gupta, R.(2019), *Guide to Banking General Awareness & Banking Aptitude Test*, Ramesh Publishing House.

4. Toor, N.S. (2018), *Handbook of Banking Information*, Skylark Publications. *Note: The latest editions of the books are recommended.* 

## Bachelor of Arts/Bachelor of Science with Additional/Optional Course in Banking (Semester-V) Session 2023-2025 Course Code: BARL-5026/BECL-5026 Banking (Quantitative Aptitude-I)

## **Course outcomes:**

After passing this course students will be able to:

**CO1:** To understand the basic concepts of quantitative ability like number series and number system.

CO2: Manage to solve problems related to profit and loss, Interest and averages.

**CO3:** learn short tricks to solve mathematical problems on speed, time and distance.

**CO4:** To understand various techniques to solve all types of problems related to data interpretation.

## Bachelor of Arts/Bachelor of Science with Additional/Optional Course in Banking (Semester-V) Session 2022-20 Course Code: BARL-5026/BECL-5026 Banking (Quantitative Aptitude-I)

Time: 2:00 hrs

Max. Marks: 100 Theory: 80 CA: 20

## Note: Instructions for the Paper–Setters/Examiners:

Sixty Multiple Choice Questions (MCQs), fifteen from each of the four Units (I-IV) are to be set. Each question carries 2 marks. Candidates are required to attempt forty (40) MCQs, selecting at least eight (8) MCQs from each unit. The remaining eight (8) MCQs may be attempted from any Unit.

### Unit I

Simplification Number Series Number System LCM and HCF of numbers

Unit II

Profit & Loss Interest: Simple and Compound Average

## Unit III

Problem on ages Speed, Time and Distance Time and Work

## Unit IV

Data Interpretation: Tabular Chart, Line Graph, Bar Graph, Pie Chart, Mixed Graph.

### **Suggested Readings:**

- 1. Aggarwal, R.S. (2020), 'Quantitative Aptitude', S. Chand Publications.
- 2. Sharma, Arun. (2019), 'Teach Yourself Quantitative Aptitude', McGraw Hill.
- 3. Tyra, M. (2018), 'Magical Book on Quicker Math's', BSC Publishing Co Pvt Ltd. Note: The latest edition of the books is recommended.

## Bachelor of Arts/Bachelor of Science with Additional/Optional Course in Banking (Semester-VI) Session 2023-2025 Course Code: BARL-6026/BECL-6026 Banking (Quantitative Aptitude-II)

## **Course outcomes:**

After passing this course students will be able to:

**CO1:** To understand abstraction of mathematical problems using decimal fraction and roots.

**CO2:** Draw conclusions or make decisions in quantitatively based situations like solving ratio and proportion and on percentages.

**CO3**: Apply methods to evaluate areas and perimeters. Understand the concept of mixture and allegation.

**CO4:** Be in a better position to analyze and make sense of the numerical data given.

## Bachelor of Arts/Bachelor of Science with Additional/Optional Course in Banking (Semester-VI) Session 20-2024 Course Code: BARL-6026/BECL-6026 Banking (Quantitative Aptitude-II)

Time: 2:00 hrs

Max. Marks: 100 Theory: 80 CA: 20

### Note: Instructions for the Paper–Setters/Examiners:

Sixty Multiple Choice Questions (MCQs), fifteen from each of the four Units (I-IV) are to be set. Each question carries 2 marks. Candidates are required to attempt forty (40) MCQs, selecting at least eight (8) MCQs from each unit. The remaining eight (8) MCQs may be attempted from any Unit.

## Unit I

Decimal fraction Square root & Cube root

### Unit II

Ratio and Proportions Percentages

#### Unit III

Area and Parameter Square, Triangle, Circle Mixture and Allegation

#### Unit IV

Permutation and Combination Basic concepts of Probability

## **Suggested Readings:**

4. Aggarwal, R.S. (2020), 'Quantitative Aptitude', S.Chand Publications.

5. Sharma, Arun. (2019), 'Teach Yourself Quantitative Aptitude', McGraw Hill.

6. Tyra, M. (2018), 'Magical Book on Quicker Maths', BSC Publishing Co Pvt Ltd. Note: The latest edition of the books is recommended.