UNIVERSITY OF RAJASTHAN, JAIPUR

SYLLABUS

SCHEME OF EXAMINATION AND COURSES OF STUDY

FACULTY OF SOCIAL SCIENCE

M.A. ECONOMICS

NOTICE

1. The Ordinance governing the examinations in the Faculties of Arts, Fine Arts, Social Sciences, Science, Commerce and Law are contained in a separate booklet. The students are advised to refer to the same.

2. Changes in Statutes/ Ordinances/ Rules/ Regulations/ Syllabi and Books may, from time to time, be made by amendment or re-making and a candidate shall, except in so far as the University determines otherwise comply with any change that applies to years he has not completed at the time of change.

3. All court cases shall be subject to the jurisdiction of the Rajasthan University head quarter at Jaipur only and not any other place.

SCHEME OF EXAMINATION
(Annual Scheme)

Each Theory Paper   **3 hrs. duration**   **100 Marks**

Dissertation/Thesis/
Survey Report/ Field
Work, if any.   100 Marks

2. The number of papers and the maximum marks for each paper/practical shall be shown in the syllabus for the subject concerned. It will be necessary for a candidate to pass in the theory part as well as in the practical part (wherever prescribed) of a subject/paper separately.

3. A candidate for a pass at each of the Previous and the Final Examinations shall be required to obtain (i) atleast 36% marks in the aggregate of all the papers prescribed for the examination and (ii) atleast 35% marks in practical(s) wherever prescribed at the examination, provided that if a candidate fails to secure atleast 25% marks in each individual paper at the examination and also in the dissertation/ survey report field work, wherever prescribed, he shall be deemed to have failed at the examination notwithstanding his having obtained the minimum percentage of marks required in the aggregate for that examination. No division will be awarded at the Previous Examination. Division shall be awarded at the end of the Final Examination on the combined marks obtained at the Previous and the Final Examinations taken together, as noted below:

First Division 60%   }   of the aggregate marks taken together
Second Division 48%   }   of the Previous and the Final Examinations.

All the rest will be declared to have passed the examination.

4. If a candidate clears any paper(s) / Practical(s) / Dissertation prescribed at the Previous and/or Final Examination after a continuous period of three years, then for the purpose of

working out his division the minimum pass marks only viz. 25% (36% in the case of practical) shall be taken into account in respect of such Paper(s) / Practical(s)/ Dissertation are cleared after the expiry of the aforesaid period of three years. provided that in case where a candidate requires more than 25% marks in order to each the minimum aggregate as many marks out of those actually secured by him will be taken into account as would enable him to make up the deficiency in the requisite minimum aggregate.

5. The Thesis/ Dissertation/ Survey Report/Field Work shall be type-written and submitted in triplicate so as to reach the office of the Registrar atleast 3 weeks before the commencement of the theory examinations. Only such candidates shall be permitted to offer Dissertation/ Field Work/ Survey Report/ Thesis (if provided in the scheme of examination) in lieu of a paper as have secured atleast 55% marks in the aggregate of all the papers prescribed for the previous examination in the case of annual scheme irrespective of the number of papers in which a candidate actually appeared at the examination.

N.B. Non-collegiate candidates are not eligible to offer dissertation as per provisions of O. 170-A.

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M.A. ECONOMICS

There shall be nine papers in all, seven will be compulsory papers and the rest two will be optional papers. Each Paper except Paper-VII (Comprehensive Economics) will contain nine questions having three questions in each section. Candidates are required to attempt five questions in all selecting at least one questions from each section.

Compulsory Papers
For M.A. Previous

Paper-I   :   Micro Economic Theory
Paper-II   :   Macro Economic Theory
Paper-III   :   Quantitative Methods for Economics

For M.A. Final

Paper-IV   :   Public Finance
Paper-V   :   International Economics
Paper-VI   :   Development Economics
Paper-VII   :   Comprehensive Economics

Optional Papers

Candidates will be required to select any two optionals - One for M.A. (Previous) and the other for M.A. (Final) examination from the following :

Optional (i)   :   Agricultural Economics
Optional (ii)   :   Co-operation : Theory & Practice
Optional (iii)   :   Industrial Economics
Optional (iv)   :   Public Enterprises & Public Utilities
Optional (v)   :   Labour and Industrial Relations
Optional (vi)   :   Demography
Optional (vii)   :   Advanced Indian Economy
Optional (viii)   :   Indian Banking System
Optional (ix)   :   International Finance
Optional (x)   :   History of Economic Thought
Optional (xi)   :   Mathematical Economics
Optional (xii)   :   Econometrics
Optional (xiii)   :   Survey Methods

COMPULSORY PAPERS FOR PREVIOUS
PAPER-I : MICRO ECONOMIC THEORY

Duration : 3 Hours **Max. Marks : 100**

Note : The paper will contain nine questions having three questions in each section. Candidates are required to attempt five questions in all selecting at least one question from each section.

Section 'A'

Theory of Consumer Behaviour - Cardinal and Ordinal utility approaches. Derivation of Individual Demand Curve, Market Demand Curve, Determinants of demand. Elasticities of demand Prices, Income and Substitution effects. Normal, Inferior and Giffen goods. Complementary and substitute goods. The revealed Prefence hypothesis. Consumer Surplus and its reformulation. Consumer behaviours under uncertainty (elementary approach).

Production : Production function - Law of variable proportions. Three stages of production. Laws of returns and returns to scale. Isoquants and optimum factor combination. Expansion path and Isolines. Capital deepening and Labour deeping technology through Isoquants.

Section 'B'

Theory of cost - short run costs, long run costs. Empirical cost function (Stigler Surviver Method). Economics of scale.

Difference Market Structures - Perfect competition and its relevance.

Monopoly - Impact of taxes on price and output. Measurement of Monopoly power. Discrimination of Monopoly with illustrations. Impact of Monopoly on Economic Welfare. Monopolistic Competition - Product differentiation and demand curve. Equilibrium of a firm (Chamberlin Model). Excess capacity according to Chamberlin.

Oligopoly-Non-collusive oligopoly (Cournot, Bertrand, Chamberlin. Kinked demand curve and Stakelberg Models) and Collusive Oligopoly (Cartels and Price Leadership). Full cost pricing, principle of Hall and Hitch Theory of limit pricing.

Section 'C'

Pricing of factors and factors of production - Ractor pricing in competitive and imperfect competitive markets.

Exploitation of Labour (Joan Robinson and Chamberlin approaches) and Trade Union. Bilateral Monopoly.

Welfare Economics - Pareto optimality Criterion Kaldor - Hicks Compensation Criterion. Bergson Social Welfare Function. Maximization of Social Welfare and the point of Bliss. Welfare Maximization. Externalities. Theory of Second Best.

Books Recommended :

1. A. Koutsoyiannis : Modern Micro Economics. MacMillan, London.
2. H.L. Ahuja : Advanced Economic Theory. S. Chand & Co., New Delhi.
3. H.L. Ahuja, Uchchatar Arthik Siddhant (Hindi) S. Chand & Co., New Delhi.
4. C.S. Barla, Uchchatar Vyashti Arthshastra, National Book House. Jaipur.
5. D. Salvatore : Micro Economic Theory. Schaum's Outlines Series. Third edition. McGraw-Hill, Inc. New Delhi

Reference Books:

1. D. Salvatore : Micro Economic Theory. Harper Collins.
2. J. M. Joshi : Theory of Value, Distribution and Welfare.
3. K.C. Roy Choudhary : Micro Economics. Tata McGraw Hill Publishing Co., New Delhi.
4. P.R.G. Layard and A.A. Walters: Micro Economic Theory. McGraw Hill Publishing Co., New Delhi.
5. Hal R. Varian: Micro Economic Analysis (Indian Print), Affiliated East-West Press Pvt. Ltd., New Delhi. Chapters 1-8, 14-20, 23-26.

PAPER II : MACRO ECONOMIC THEORY

Duration : 3 Hours   **Max. Marks : 100**

Note : The paper will contain nine questions having three questions in each section. Candidates are required to attempt five questions in all selecting at least one question from each section.

Section 'A'

Basic Concepts & Methodology. Macro Economic variables (e.g., national income, employment, saving, investment, price level, wages, interest rate). Real and nominal quantities. Stock and flow variables and their inter-relationship. Problems of aggregation in the construction of Macro Economic variables.

Structure of National Accounts—transactions of consumption, production, investment, government and foreign trade sectors. Concepts, components and measurement of national income. Value

of Money. changes in the value of money. The Quantity Theory of Money and its variants including the Friedman's reformulation of the Quantity Theory. Post-Keynesian Theories of Money Demand.

Section 'B'

The Classical Theories of saving, investment, interest rate. wage and employment. The complete Classical model of determination of employment and output. Say's Law. Price and wage flexibility and full employment. The Real Balance Effect. Keynesian criticism of the Classical theories. Keynesian model for the determination of income consumption. saving. investment, interest rate, wages and employment. The consumption function hypotheses: Absolute Income, Relative Income Permanent Income and Life Cycle Hypothesis. Business Cycles—models of Samuelson. Hicks and Kaldor.

Section 'C'

Macro economic equilibrium—relative roles of monetary and fiscal politices. IS-LM analysis. Fleming-Mundell open economy model. Stabilization policy : prospects and problems. Aggregate Demand and Aggregate supply curve - analysis.

Phillips curve. The control of inflation and recession in developing and developed economies.

Present relationship amongst the Treasury. Central Bank and Commercial Banks. Instruments of monetary policy and their relative effectiveness in various situations.

Money Supply, its determinants, High powered money. Money Multiplier. Domestic monetary policy in India since 1981—Its role effectiveness in various situations.

Note : Use of non-prigrannabke cakckatir us oernutted.

Books Recommended :

1. Gardner Ackley : Macro Economic Theory (Latest Ed.)
2. Martin J Bailley : National Income and the Price Level. Chap. 2 and 3
3. Edward Shapiro : Macro Economic Analysis (Latest Ed.)
4. K.C. Rana and K.N. Verma : Macro Economic Analysis.
5. Weilliam H. Branson and James M. Litvack : Macro Economics.
6. Rosalind Lavacie : Macro Economics.
7. M.J.C. Surry (Ed.) : Nacri-Economic Theories.
8. R.F. Henson : Guide to Keyw.

9. Dadle Dillard : A Guide to Keynes.
10. M.C. Vaish : Samashti Arthshastra (Hindi). Macro Economics (Eng.).

Reference Books :

1. M.K. Evans : Macro Economic Activity.
2. M. G. Muller (Ed.) Readings in Macro Economics, 1966.
3. Reserve Bank of India : Reports on Currency & Finance.
4. Reserve Bank of India : Annual Reports - 1998 onwards
5. Reserve Bank of India : Monthly Bulletin.
6. J.M. Keynes : The General Theory of Employment, Interest and money.
7. Barret : Macro Economic Policy.
8. Uma Datta Roy Choudhary : National Income Accounting, Macmillan India Ltd. Delhi.
9. Prabhat Patnaik, Macroeconomics. Oxford University Press.
10. A.K. Dasgupta, Macroeconomics Analysis.
11. H.L. Ahuja : Samashti Arthshastra (Hindi), Macro Economics (Eng.).
12. Rudi Dornbusch, S Fisher and R Startz : Macroeconomics, Tata McGra-Hill Edition, 2000.
13. Raghbendra Jha : Contemporary Macroeconomics.

PAPER-III. QUANTITATIVE METHODS FOR ECONOMICS

Duration : 3 Hours   Max. Marks : 100

Note : The paper will contain nine questions having three questions in each section. Candidates are required to attempt five questions in all selecting at least one question from each section.

Section 'A'

Measures of Central Tendency Mean, Median, Mode Geometric Mean and Harmonic Mean.

Dispersion—Quartile deviation, Standard deviation, Coefficient of Variation.

Skewness-Karl Pearson's Coefficient. (Emphasis on interpretation).

Correlation and simple regression. (Interpretation)

Analysis of Time Series—Components, Trend by moving average methods and least squares method. Determination of seasonal variation.

Index number—Cost of living index. Fisher's Ideal Index and test of Good Index Number.

Section 'B'

Probability—Basic concepts and calculation of simple probability problems. Mathematical Expectation. Binomial, Poisson and Normal Distributions. Sampling Distribution of t, X_2 (chi Square) and F and their properties. (without proof). Testing of Hypothesis—Basic concepts, t test (Significance of Mean and Difference between means), c_2 test, F-test, (test of Independence, homogeneity and Goodness of Fit).

Linear Programming-Formulatioin, Graphical solution, Simplex Method involving two variables for maximization only.

Section 'C'

Simple Differentiation, Partial Differentiation of Functions involving two independent variables. Maxima and Minima with and without constraints.

Applications of differential calculus in Economics (Utility Maximization, profit maximization, calculation of different elasticities, determination of nature of goods). Integration—One variable case, Definite Integrals. Applications of Integral Calculus in Economics (Derivation of Total Cost function, consumption function, saving function, consumer's surplus and producer's surplus).

First order difference equation and its applications in Economics (Cobweb Model and Income Determination). Determinants, Matrices (Multiplication and Inverse).

Solution of Simultaneous Equations by Cramer's Rule.

Books Recommended :

1. S.P. Gupta : Statistical Methods. Sultan Chand & Sons, New Delhi.
2. B.C. Mehta and G.M.K. Madnani : Mathematics for Economists, Sultan Chand & Sons, New Delhi.
3. Kailash Nath Nagar : Sankhiyiki Ke Mool Tatva (Hindi) Meenakshi Prakashan, Meerut.
4. Laxmi Narain Nathuramka : Arthshastra Mein Ganit Ke Prayog (Hindi), College Book House, Jaipur.

Reference Books :

1. R.G.D. Allen : Mathematical Analysis for Economists, McMillan, London.

2. Alpha C. Chiang : Fundamental Methods of Mathematical Economics. McGraw-Hill, Tokyo.

3. F.F. Croxton, D.S. Cowden & S. Klein : Applied General Statistics, Prentice Hall of India, New Delhi.

4. A.L. Nagar and R.K. Das : Basic Statistics, Oxford University Press.

5. A. L. Nagar & P. D. Sharma : Statistical Methods of Economic Analysis, S. Chand & Co., New Delhi.

6. Edward T. Dowling : Mathematics for Economists, Schaum's Outline Series, McGraw-Hill Book Co., New Delhi.

COMPULSORY PAPERS FOR FINAL
PAPER-IV : PUBLIC FINANCE
Duration : 3 Hours   Max. Marks : 100

Note : The paper will contain nine questions having three questions in each section. Candidates are required to attempt five questions in all selecting at least one question from each section.

Section 'A'

Nature and Scope of Public Finance. Role of Government in the Economic activity—Allocation, Distribution and Stabilization functions. Private, Public and Merit goods. Optimal Budgeting. Principle of Maximum Social Advantage. Public Budgets.

Public Expenditure—A positive approach, Wagner's Law. Theory of Social Goods. Bowen, Lindhal and Samuelson's Models. Effects of Public Expenditure on production and distribution.

Public Revenue—Buoyancy and elasticity of a tax. Justice in taxation. Ability to Pay Approach. Equi-proportional, Equi-marginal and least aggregate sacrifice principles.

Section 'B'

Shifting and Incidence of taxes under Monopoly and Perfect Competition. Effects of Commodity taxation on production. Effects of direct taxation on production (viz. labour supply and saving rate) and distribution. Progressiveness of a tax system and its measurement.

Theory of Public Debt : Economic effects of public debt. Loans and savings as sources of finance for development. Burden of public debt on present and future generations.

Fiscal Policy : Objectives, neutral, compensatory and functional finance. Balanced Budget Multiplier. Fiscal policy in under developed countries. Automatic and built-in-flexibility.

Section 'C'

Major trends in public expenditure in India (growth and composition). Salient features of the Indian Tax System. Major Taxes, Main trends in the Revenue of the Central and State Government in India. Non-tax revenue. Recent Tax Reforms. Internal and External Public Debt of India.

Fiscal Federalism—Theory and problems, problems of centre-state financial relations in India. Criteria for resource transfer from the center to states. Finance Commissions and revolution of resources to Rajasthan.

Books Recommended :

1. R.A. Musgrave : Theory of Public Finance.
2. R.A. Musgrave and P.B. Musgrave : Public Finance in Theory and Practice.
3. S. Ganguli : Public Finance.
4. H. L. Bhatia : Public Finance.
5. Prem Prakash Sharma : Sarwajanik Vitt Ke Siddhant (Hindi).
6. R. Jha : Modern Theory of Public Finance.

PAPER-V : INTERNATIONAL ECONOMICS

Duration : 3 Hours   Max. Marks : 100

Note : The paper will contain nine questions having three questions in each section. Candidates are required to attempt five questions in all selecting at least one question from each section.

Section 'A'

The Law of Comparative Advantage—The Mercentalists.

Classical theory of Comparative Advantage. View of Adam Smith, Mill, Haberler and Ricardo.

The standard theory of trade—Production functions, Community indifference curve, Offer curves, Trade Indifference Curve, Trade Offer Curves. Meade's General Equilibrium of trade.

Factor Endowments and Hecksher-Ohlin Theory—Factor Price Equalisation, Stolper-Samuelson theorem, Rybezynski Theorems.

Empirical Tests of Ricardo and Heckscher—Ohlin Theories. Complementary Trade theories.

Economic Growth and International Trade, Growth of factors of production, Technical progress.

Section 'B'

Free Trade versus Protection. Tariff (Partial Effects. Optimum Tariff). Other Trade Restrictions (Quota. Quota versus tariff. Non-tariff barriers and the new protectionism). The Political Economy of protectionism and strategic trade policy

Economic Integration— Theory of Custom Union. Regional Trading blocks.

Trade and economic Development — Terms of Trade. Export Instability and economic development. Import Substitution versus export promotion. Current trade problems of developing countries. Role of the World Bank / WTO.

International Resources Movements and Multinational Corporations— Labour and Capital Movements and their effects. brain drain and role of MNC's.

Section 'C'

Foreign Exchange Market : Functions. Foreign Exchange risks. hedging. speculation. arbitrage. future and options

Exchange Rate and Exchange rate theories — Spot and Forward rates Purchasing Power Parity theory Monetary approach and Portfolio Balance approaches of exchange rate determination. Euro-currency market.

Balance of Payment — Accounting. Causes of disequilibrium and remedies. Devaluation and Marshall Larner condition. Elasticity and absorption approaches.

Fixed and Flexible Exchange Rates — Case for and against fixed flexible exchange rates. adjustment under gold standard. Price flow Mechanism.

Books Recommended :

1. Dominick Salvatore : International Economics. III Ed.. MacMillan. 1990.

2. Herbert G. Grubel : International Economics. Richard D. Irwin. 1977.

3. Bo Sodersten and Geofrey Reed : International Economics. III edition. MacMillan. 1994.

4. Peter B Kenen : The International Economy. III Ed.. Cambridge University Press. 2000

Reference Books :

1. Peter M. Linderdett : International Economics. Latest Edition. Irwin.

2. D. Salvatore : Schaum's Outline Series on Theory and Problems

of International Economics. 3rd ed., McGraw-Hill 1990.

3. R. Robert Heller : International Trade, Theory & Empirical Evidence, Prentice Hall of India (Latest Ed.)

4. Chacolidades : International Economics, II ed., 1990.

5. M.C. Vaish and Sudama Singh : Antarrashtriya Arthshastra (Hindi). International Economics (Eng.).

PAPER-VI : DEVELOPMENT ECONOMICS

Duration : 3 Hours   Max. Marks : 100

Note : The paper will contain nine questions having three questions in each section. Candidates are required to attempt five questions in all selecting at least one question from each section.

Section 'A'

Meaning and measurements of economic development and human development. Structural features and process of change-empirical studies of Kuznets, Denison & Chenery. Ingredients of development-Land, physical capital, labour and human capital, technological change scale, organization. Growth Models-Ricaardo, Marx (Classical), Harrod-Domar, Solow (Neo-classical). Lewis model and the Renis-Fei Extension.

Section 'B'

Development Planning : Balanced and unbalance strategies, Choice of techniques. Capital-output ratio, Investment Criteria. NPV, IRR, Social Cost Benefit Analysis.

Accounting Prices, Applications of Input-Output Analysis in Planning Programming, Programming, approach of Planning.

Section 'C'

Financing of economic development. Domestic and external resources International trade and development Two-gap models. Plan models of India. Past performance and current issues of Indian Planning.

Books Recommended :

1. G.M. Meier : Leading Issues in Economic Development (Latest Ed.)

2. P.A. Yotopoulous and J.B. Nargeat : Economics of Development.

3. A. P. Thirlwal : Growth and Development with special reference to Developing Economies (Latest Ed.)

4. Michael P. Todaro : Economic Development in the Third World (Latest Ed.)

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5. Bruce Herrick and Charles P. Kindleberger : Economic development (Latest Ed.)

6. S. K. Mishra and V.K. Puri : Vikas Ka Arthshastra (Hindi). Economics of Growth and Development (Eng.)

7. M.L. Jhingan : Vikas Ka Arthshastra.

Reference Books :

1. W.A. Lewis : Development Planning.

2. S. Chakravarty : Development Planning—The Indian Experience. 1987.

3. S. Kuzents : Modern Economic Growth.

4. A. K. Sen (Ed.) : Growth Economics.

5. S. Chakravarty : Economic Development and Planning.

6. World Development Report (Latest).

7. Human Development Report (Latest).

8. The Economic Survey—Government of India.

9. Five Year Plans of India.

10. P. Bardhan, M. Dutta Chaudhary and T. Krishnan: Development and Change. Oxford University Press.

PAPER-VII : COMPREHENSIVE ECONOMICS
Duration : 3 Hours   Max. Marks : 100

Note : There will be two parts of the paper. Each part will be of 50 marks. Part-I will cover current theory portion of all compulsory paper of M.A. and Part-II will cover Indian Economics and Current International Economic issues.

Questions in each part will be set in the following pattern

(a) 14 questions—Objective type of one mark each.

(b) 12 questions—Short answers (not more than 50 words) of two marks each.

(c) Three short essay type questions (note more than 150 words of 4 marks each

There will be internal choice only in the short essay type questions

OPTIONAL PAPERS

PAPER (i) : AGRICULTURAL ECONOMICS
Duration : 3 Hours   Max. Marks: 100

Note : The paper will contain nine questions having three questions in

each section. Candidates are required to attempt five questions in all selecting at least one question from each section.

Section 'A'

Agriculture in growing economy, changing importance of agriculture. Subsistence/traditional agriculture and its modernization. Interdependence between agriculture and industry—Some empirical evidence. Institutional change and technological changes. Farming systems—traditional commercial, cooperative, collective and state farming. Production functions in agriculture, resources use efficiency.

Farm size and productivity relationship in Indian agriculture. Farm budgeting. Concept of cost. Supply of individual crops and aggregate supply. Supply price relationship.

Section 'B'

Factors of production. Characteristics of factor markets. Inter-linkages between land, labour and capital markets. Traditional agriculture. Tenancy and crop sharing. Mobility of land and segmentation in labour markets. Role of capital and agricultural credit. Organized and unorganized capital market. Uncertainty and crop insurance. Agricultural markets and marketing efficiency.

Section 'C'

Behaviour of agricultural prices. Demand and supply of agricultural products and Cobweb Cycles. Prices and Income Stability. Market and marketable surpluses. Role of public price and distribution policies. Stabilization and support policies. Terms of trade between agriculture and non-agriculture. Agricultural price policy in India.

Agricultural growth in India. Inter-regional variation in growth of output and productivity. Agricultural growth in Rajasthan. Cropping pattern changes in India.

Institutional changes—Land reforms, credit structure and marketing Supply of inputs—irrigation, power, seed fertilizer. Pricing of inputs. Problem of mobilization of resources from agriculture.

Books Recommended :

1. E.D. Heady and J. L. Dillon : Agricultural Production Functions.
2. T.W. Shultz : Transforming Traditional Agriculture
3. Pranab K. Bardhan : Land, Labour and Rural Poverty in India.
4. Krishna Bhardwaj : Production and Conditions in Indian Agriculture.
5. C.H.H. Rao : Agricultural Production, Costs and Returns in India.

6. D.S. Tyagi and G.S. Bhalla : Agricultural Development in India.

PAPER (ii) : CO-OPERATION (THEORY AND PRACTICE)
Duration : 3 Hours   **Max. Marks : 100**

Note The paper will contain nine questions having three questions in each section. Candidates are required to attempt five questions in all selecting at least one question from each section.

Section 'A'

Fundamental principles of Cooperation—Traditional and reformulated once. State policy and cooperative movement. cooperative structure Primary. Central and apex level cooperatives and the inter-relationships.

Role of Co-operatives in overall development of Denish. Israeli. Chinese and Japanese economies.

Section 'B'

Cooperative Movement in India : Present major trends and unresolved problems of credit marketing, dairy and consumer cooperatives. Role of cooperative in rural development and rural industrialization with special reference to Rajasthan. Future lines of major reforms.

Section 'C'

Cooperative Management : Role of cooperative department elected non-officials and cadres of cooperative personal cooperative laws and management. Growth of vasted interests and their eradication Need for a de-officialisation programme Effective management reforms for strengthening the Movement in India.

Books Recommended :

1. T.N. Hajela : Principles, Problems and Practice of Cooperative
2. S. R. Kulkarni : The Theory and Practice of Cooperation Vol -II.
3. B.S. Mathur : Cooperatives in India (English & Hindi Ed.)
4. B.B. Goel : Cooperative Management and Administration.
5. S. K. Sinha & R. Sahaya Management of Co-operative Enterprises National Council of Cooperative Training.

PAPER (iii) : INDUSTRIAL ECONOMICS
Duration : 3 Hours   **Max. Marks : 100**

Note The paper will contain nine questions having three questions in each section. Candidates are required to attempt five questions in all selecting at least one question from each section.

Section 'A'

Concept of plant. firm. business house. industry and market. Business Organization in private and public corporate sectors. Strength and structure of Indian corporate sector. Public sector in India : rationale and performance.

Industrialization and development. Backward and forward linkages. Independence of industrial sectors.

Industrial sector in India. Alternative strategies for Industrialization. Capital goods v/s Consumer goods. Import substitution v/s Export promotion in newly industrial countries and their experience.

Section 'B'

Location of Industries. Theories and measures of location. Location of Industries in India. Industrial project. selection criterion. Industrial finance—money and capital-markets. development banks. Industrial finance in India.

Section 'C'

Industrial growth in India. Inter-regional variations in industrial development. Industrial policy in India. Small scale industries. Industrial concentration and MRTP Act. Foreign collaboration in technology imports. Industrial sickness. Policy making for Industrial growth. Effective study of the steel, cement, electronics and textiles industries. Industrial development in Rajasthan.

Books Recommended :

1. R. R. Barthwal : Industrial Economics : An Introductory Textbook.
2. S. C. Kuchchhal : Financial Management.
3. Hay and morris : Industrial Economics : Theory and Evidence.
4. Isher J. Ahluwalia : Industrial growth in India : Stagnation since the mid-sixties.
5. K. V. Sivayya and V.B.K. Das : Indian Industrial Economy.

Reference Books :

1. W. Isard : Methods of Regional Analysis—An Introduction to Regional Science.
2. Chenery and Clark : Inter-Industry Economics
3. M.A. Utton : Industrial Concentration.
4. J. S. Bain : Industrial Organisation.
5. J Bhagwati and P. Desai : Indian Planing for Industrialization.
6. Productivity Trends in Cement Industry in India, National Productivity Council.

PAPER (iv) : PUBLIC ENTERPRISES AND PUBLIC UTILITIES

Duration : 3 Hours   **Max. Marks : 100**

Note : The paper will contain nine questions having three questions in each section. Candidates are required to attempt five questions in all selecting at least one question from each section.

Section 'A'

Difference between public and private activities Public enterprises and public utilities. Characteristics of public utilities— Legal and economic aspects. Various public utilities — railways, road and air transport, electricity, telephones, water-supply, TV and broadcasting. Public operations of utilities Regulation of public utilities.

Different forms of public enterprises—Departmental, company corporation, holding companies, Joint sector, Rationale and objectives of public enterprises in India Central and State enterprises.

Section 'B'

Principles of public utility rate making —marginal cost and full cost pricing. Concept of a fair rate of return to cost and value of service as standards of reasonableness, fairness and functional efficiency. Objectives of rate making—discriminatory pricing, railway rates and electricity tariffs Finding of public utilities. Ownership — private, public or cooperative.

Planning and investment decisions. Financial structure and financial analysis. Financial ratios and rate of return. Economic analysis and benefit cost estimation.

Section 'C'

Growth of Public Sector in India. Achievements and problems Profitability and resource mobilization by public enterprises. Recent change with regard to PSUs. Public sector enterprises in Rajasthan A detailed study of Rajasthan State Electricity Board and Rajasthan Road Transport Corporation.

Books Recommended :

1. V.V. Ramnathan : Meaning of Public Enterprises
2. V.V. Ramnathan : Structure of Public Enterprises in India.
3. V.V. Ramnathan : Finances of Public Enterprises.
4. E. Troxe : Economics of Public Utility.
5. R Turvey : Economic Analysis and Public Enterprises.

Reference Books :

1. R. Turvey : Public Enterprises
2. R. Turvey and D. Anderson : Electricity Economics.
3. T. Haris and R. J. Sampson : Public Utilities.
4. Pagrum P. Duedley : Transport Economics Public Policy.
5. Mayer. Kain, Wohli : The Urban Transport Problem.

PAPER (v) : LABOUR AND INDSUTRIAL RELATIONS

Duration : 3 Hours   Max. Marks : 100

Note : The paper will contain nine questions having three questions in each section. Candidates are required to attempt five questions in all selecting at least one question from each section.

Section 'A'

Labour Economics—Importance, old and new theories. Theoretical and institutional labour Economics. Theory of individual labour supply and demand for labour. Wage determination. Functions and characteristics of labour market with special reference to developing economics.

Non competing groups and segmentation in labour markets. Rural labour market and rural—urban migration. Todaro Harris Hypothesis. Investment in human capital.

Definition of working force and labour force. Concept of unemployment and under employment. Types of unemployment. Estimates of unemployment in India and Rajasthan.

Employment in organized and industrial sectors in India—its size, growth and characteristics.

Section 'B'

Government and Labour market. Labour legislation and social security. State reputation of wages. Minimum wages for industrial and agricultural workers. Wage and income policy.

Labour unions—Their role and functions. Labour unions and collective bargaining economic impact of unions.

Trade Union movements in USA. Russia and India. Industrial relations—factors determining industrial relations. Collective bargaining in India.

Section 'C'

Industrial disputes and grievances Causes of unrest. Machinery for industrial peace. Conciliation, mediation and arbitration. Industrial

and disputes in India since 1980 critical study of existing machinery of industrial relations in India.

Workers participation in ownership and management—concepts and Indian experience. Industrial Labour Organisation—functions and role. India and ILD. Industrial Labour and Industrial Relations in Rajasthan.

Books Recommended :

1. Dunlop : Industrial Relations System.
2. B. C. Roberts : Trade Union in a Free Society.
3. R. N. Subramanian : Labour Management Relations in India.
4. V.G. Mhetras : Labour Participation in Management.

Reference Books :

1. Mary Sur : Collective Bargaining
2. D. N. Mongia : Reading in Indian Labour and Social Problems.
3. Jalan and Bimal : Economics of Labour Policy.
4. McConnell C.L. and S.L. Brue : Contemporary Labour Economics McGraw-Hill Co.

PAPER (vi) : DEMOGRAPHY

Duration : 3 Hours   Max. Marks : 100

Note : The paper will contain nine questions having three questions in each section. Candidates are required to attempt five questions in all selecting at least one question from each section.

Section 'A'

Morality Measures—Grade and specific rates Life tables. Factors effecting mortality. Mortality change and population growth. Fertility measures—Crude and specific rates, gross and non reproductive rates. Factors affecting fertility. Study of fertility attitudes by special survey, Mortality rate, fertility rate, reproductive rate and population growth in India.

Composition of Population—Social economic composition. Relationships of age, sex and other compositional traits to economic and special organization. Composition of Population in India. Effects of birth death and migration rates upon population

Section 'B'

Basic principles of measurement of population growth- Estimates, census, vital registers and records of migration. Continuous population registration. Methods of population presentation.

Projection of population in India.

Economically active population—Basic concept and definitions impact of demographic process on the composition and size of the labour force, occupation and industrial composition of work force in relation to regional and International differences in economic development. Female participation in work force. A Study of occupation, composition and female participation in India. Concept of Human Development.

Section 'C'

Theories of demographic transition. Employment and manpower planning—Its significance and problems. Measurement, Incidence and implications of unemployment and underemployment with special reference to India.

Implication of population change for capital formation and employment in developing countries. Indian Census, Family Planning. NFH Surveys (Objectives and findings).

Books Recommended :

1. G.W. Barclay : Techniques of Population Analysis.
2. D. K. Bogue : Principles of Demography.
3. Coale and Hoover : Population Growth and Economic Development in Low Income Countries.
4. O. S. Srivastava : Arthik Evam Samajik Jananaki Shastra (Hindi).
5. Jeevan Chandra Pant : Janaki (Hindi).
6. Mahboob-Ul-Haq : Reflections in Human Development.
7. Human Development Report (Latest).
8. National Family Health Survey. 1 and 2

PAPER (vii) : ADVANCED INDIAN ECONOMY
Duration : 3 Hours   Max. Marks : 100

Note : The paper will contain nine questions having three questions in each section. Candidates are required to attempt five questions in all selecting at least one question from each section.

Section 'A'

Demographic aspects—Population growth, labour force, occupational distribution, poverty, unemployment. Issues in measurement and policy options.

Agriculture—Institutional changes, technological changes. Farm price policy, Agricultural finance progress and emerging trends, food situation and food policy.

Industry—Recent trends in Industrial growth. Recent changes in industrial policy and licensing policy. Concentration of economic power in private sector and MRTP Act. Public sector industries – Growth and problems of pricing and measurement. Role of public financial institutions. Role of multinationals in development. Indian industries.

Section 'B'

Foreign Trade—Main trends in imports and exports. foreign trade policy—Import substitution and export promotion. India's balance of payments position in recent years. Major monetary and banking trends. problem of inflation. Black money. Monetary and credit policies. Main issues in banking development.

Fiscal development—Trends in taxation and public expenditure at the central level. Central State Financial relations. Resources mobilization for planning—Role of taxation. borrowing, deficit financing and administered prices for plan financing. Long term fiscal policy for India.

Section 'C'

Indian Planning –Strategy and objectives. Development policies. Saving and investment rates, Foreign capital and technology transfer in India.

Institutional framework of Indian economy and its structural changes during plan period. Economic growth during plan period. Recent economic reforms in India.

National income –growth and composition. regional distribution. Income inequalities in India. Concentration Ratios, policy for improving income and wealth distribution in India.

Books Recommended :

1. A. N. Agrawal : Indian Economy (Latest Ed.)
2. Rudradutt and Sundram : Indian Economy (Latest Ed.)
3. A. N. Agrawal : Bhartiya Arthshastra (Latest Ed.)
4. Rudradutta and Sundram : Bhartiya Arthshastra (Latest Ed.)
5. Laxmi Narayan Nathuramka : Bhartiya Arthshastra (Latest Ed.)

Reference Books

1. Mishra and Puri : Indian Economy.
2. Kurion C.T. : The Economy : An Interpretative Introduction. Sage Publications.
3. Kapila Uma (Ed.) : Indian Economy since Independence. Academic Foundation. New Delhi.

4. Kapila Uma (Ed) : Recent Development in Indian Economy. Pt. I. II. III. Academic Foundation. New Delhi.

5. Jalan Bimal : The Indian Economy : Problems and Prospects.

6. C. Rangarajan : Perspectives on Indian Economy.

Paper (iii) : INDIAN BANKING SYSTEM

Duration 3 Hours   Max. Marks : 100

Note : The paper will contain nine questions having three questions in each section. Candidates are required to attempt five questions in all selecting at least one question from each section.

Section 'A'

Indian Banking System as on the eve of bank nationalization. Management problem of commercial banks during the last one decade. Emergency of social banking and its progress. Priority sector, advances and advances to weaker sections and their problems of recovery. Non-performing assets of commercial banks, concept, classification norms and management. Capital adequacy. New innovations related to banking business. Cost and pricing of banking services.

Section 'B'

Internationalisation of banking service in India—de-regulation, liberalization and competition among banks (New challenges for Indian Commercial Banks).

Present and future HRD needs for bank employees in India. Recruitment. Training and appraisal of bank officials since 1990s.

Rural Banking—A critical review of the contribution of major credit cooperatives. commercial banks and regional Rural banks including that of the NABARD.

Development Banks—Kinds. role and achievements of all India development banks for industries and foreign trade.

Section 'C'

Money and capital markets in India—Features, instruments, availability of funds and major problem of principal market—partners RBI's monetary and credit policies as enforced since the beginning of the 1990's. their objectives. contribution to economic growth and price stability and overall effectiveness.

Books Recommended :

1. S. B. Gupta : Monetary Planning for India (Latest Ed.)

2. K. Rao : Management of Commercial Banks

3. L. M. Bhole : Impacts of Monetary Policy.

4. Harendra Badhav (Ed.) : Challenges to Indian Banking Competition, Globalisation and Financial Markets McMillan, 1996

5. N. S. Ther : Non-Performing Advances in Banks, Skylark, New Delhi.

Reference Books :

1. Report of the Committee (Narsimham) on the Financial System Nov., 1991.

2. I.B.A. Bulletin : Annual Special Issues, 1994, 1995 & 1996.

3. RBI Report on trend and Progress of Banking in India (Latest Ed.).

4. Hanson and Kathuria (ed.) : A Financial Sector for the 21st Century, Oxford University Press.

5. Y.V. Reddy, Monetary and Financial Sector Reforms in India, UBSPD, New Delhi.

PAPER (ix) : INTERNATIONAL FINANCE

Duration 3 Hours   Max. Marks : 100

Note : The paper will contain nine questions having three questions in each section. Candidates are required to attempt five questions in all selecting at least one question from each section.

Section 'A'

Finance Function—Sources and Uses. International capital movements—classification and role in developing nations. Foreign Direct Investment, Foreign Portfolio investment and financial instability.

International Financial System and Globalization—developments in Exchange Marekts, Eurocurrency markets, Asian Dollar Markets and International Bond Markets. Principles of International Financial Management

Section 'B'

Foreign Exchange Market— Structure, Kinds, instruments of payments, functions, exchange trading, exchange risk, arbitrage and speculation.

Foreign exchange rate—meaning, determination of equilibrium exchange rate, theories of exchange rate and exchange rate systems.

Balance of payments—meaning, components. disequilibrium it BoPs, its causes and remedial measures.

Open Economy Macro Economics—BoPs equilibrium and adjustment mechanism (automatic and policy).

Trends in India's Balance of Payments and growth of foreign exchange reserves since the beginning of the 1990s.

Section 'C'

Global Business Finance. Long term borrowing from World Bank Asian Development Bank and Aid India Club nations and its overall impact on India economy. International Monetary System and alternative international monetary standards. IMF and problem of international liquidity. Optimum currency areas. Theory of international reserves. WTO and its impact on different sectors of the economy. Regional Blocks—Multilateralism and World Trading System.

Books Recommended :

1. Grabbe J. Orlin : International Financial Markets. Prentice Hall, Inc. Englewood Cliffs, NJ, USA.

2. Daniel R. Kane : Principles of International Finance. Croom Helm Ltd.

3. Harold James : International Monetary Cooperation since Bretton Wood. IMF.

4. Peter B. Kenen (Ed.) : Managing the World Economy : Fifty Years after Bretton Wood.

5. Peter Kenen : International Economics. Cambridge University Press.

6. Bo Sodersten and Geofrey Reed : International Economics. MacMillan.

7. John Millar (Ed.) : Curing World Poverty.

8. IMF : International Capital Markets. Development Prospects and Policy Issue. 1994.

9. Lovi-Maurica : International Finance. McGraw-Hill.

Reference Books :

1. World Bank : Annual Conference on Development Economics.

2. World Bank : Annual Reports.

3. ADB : Annual Reports.

4. IMF/World Bank : Special Issue of Finance and Development of Financial Market.

5. BIS : Annual Reports.
6. Reserve Bank of India : Monthly Bulletin.
7. Reserve Bank of India : Report on Currency and Finance

PAPER (x) : HISTORY OF ECONOMIC THOUGHT
Duration 3 Hours   Max. Marks : 100

Note : The paper will contain nine questions having three questions in each section. Candidates are required to attempt five questions in all selecting at least one question from each section.

Section 'A'

Mercantalism, Physiocrates. Quesnay's Table Economic. Concept of Surplus, growth theory, taxation and role of Government.

Classical school—Adam Smith, the invisible hand doctrine. Wealth of Nations, Laissez faire. Profits and wages. Modern revival of Adam Smith, Critiques of Adam Smith.

Malthus's theory of population and theory of under-competition : Ricardo—Principles of Political Economy and Taxation. Distribution theory—different rents. Differences with say on determination of value. Modern revival and interpretation (Sraffa).

Section 'B'

Crtitics of the classical school—Sismondi, Socialist and the nationalist school. Re-statement of the classical position Senior and the four postulates. J. S. Mill—four prepositions and capital demand and supply bi-furcation, wage fund.

Rehabilitation by Cairsness, Stationery State Version, non-competing groups.

Evaluation of socialist throught—Utopian, Socialism, Saint Simon. Own Balne. Fourier, Proudhob, Scientific socialist.

Section 'C'

Karl Marx—Efforts at scientific socialism. Orgaic composition of capital. Break down of capitalism. Reserve Army of Labour. Critiques of Marx Modern, Revival of Marx in Economics. The German Historical School and the development of Marginalism. The neo-classical school. Marshall.

Twentieth century economic thought- main features (only the rise of Keynesianism, the rise of mathematical Economics, dynamics and econometrics). Critical evaluation of the development of economic thought. Indian economic thought—Kautilya and Gandhi.

Books Recommended :

1. H. Haney : History of Economic Thought
2. Eric Roll : History of Economic Thought.
3. Gide and Rist : History of Economic Doctrine.
4. V.C. Sinha : Arthik Vicharon Ka Itihas.
5. K. L. Rangaswami : Aiavangar : Aspect of the ancient Economic Thought.
6. J. C. Kumarappa : Gandhian Economic Thought.

PAPER (xi) : MATHEMATICAL ECONOMICS

Duration : 3 Hours   Max. Marks : 100

Note : The paper will contain nine questions having three questions in each section. Candidates are required to attempt five questions in all selecting at least one question from each section.

Section 'A'

Theory of Consumer Behaviour—Concavity of a Utility Function. Convexity of an indifference curve. Maximization of utility. Derivation of demand functions—Ordinary and compensated demand functions. Elasticity relations in demand theory—Engel Aggregation Condition and Cournot Aggregation Condition.

Income and Leisure—Derivation of labour supply function.

Slutsky Equation—2 and n-commodity cases, elasticity form and important results.

Type of Utility functions—separable and additive, homogeneous and homothetic, direct and indirect. Roy's Identity, Linear Expenditure System.

Restrictions on demand functions.

Theory of firm : Production function—A well behaved production function. Cobb-Douglas and CES Production Functions. Homogeneous production function. Optimization beaviour of a firm-profit maximization, constrained cost minimization and constrained output maximization.

Section 'B'

Elasticity of substitution (s) derivation of its expression and calculation of value of s for CDPF and CESPF. Special cases of CESPF.

Deviation of Cost and input demand function.

Perfect Competition : Market demand and supply function. Determination of price and output of a firm. Effects of specific and ad valorem taxes. Stability of equilibrium—Marshallian & Walrasian

Stability Conditions. Lagged adjustment--Cobweb Model. Consumer's surplus and producer's surplus.

Monopoly : Profit Maximization and sales revenue maximization. Multi-Plant Monopolist, price discrimination. effect of various taxes (Lumpsum tax, profit tax, specific tax and ad-valorem tax) on output and price of a monopoly firm.

Duopoly : Collusion. Cournot. Stakelberg and market sharing models.

Factor Market : Elasticity of factor demand and Marshall's four rules.

Section 'C'

Macro Economic Models : Keynesian theory of income determination. concept of Multiplier, derivation of IS and LM functions. Multiplier--Accelerator interaction. Trade Cycle models of Samuelson and hicks.

Growth Model : Harrod--Domar. Kaldor. Solow and Meade.

Linear Programming : Simplex method Duality theorems, problem of Degeneracy.

Input-Output Analysis-- Concepts of static. dynamic. closed and open input--output models. Hawkings-Simon conditions of viability. Determination of gross output and value added.

Theory of Games : Two person-constant sum games. Maximin and Minimax. Pure and mixed strategies.

Note : Use of non-prorammable calculator is permitted.

Books Recommended :

1. J. M. Henderson and R. L. Quandt : Micro Economic Theory : A Mathematical Approach. McGraw-Hill. London.

2. RGD Allen. Mathematical Economics.

3. B. C. Mehta : Mathematical Economics : Micro Economic Models. Sultan Chand & Sons. New Delhi

Reference Books :

1. Alpha C. Chiang : Fundamental Methods of Mathematical Economics. McGraw-Hill, Kagakusha. Tokyo.

2. R.G.D. Allen. Macro Economic Theory : A Mathematical Treatment. McGraw-Hill London.

3. Michael K. Evans : Macro Economic Activity : Theory. forecasting and Control.

4. B. C. Mehta and G.M.K. Madnani Mathematics for Economists. Sultan Chand & Sons. New Delhi

5. H. S. Agrawal : Kimat Siddhanton Ka Ganitiya Vishleshan. R.B.S.A. Publishers. Jaipur.

PAPER (xii) : ECONOMETRICS
Duration 3 Hours   **Max. Marks : 100**

Note : The paper will contain nine questions having three questions in each section. Candidates are required to attempt five questions in all selecting at least one question from each section.

Section 'A'

Nature and scope of Econometrics. Methodology of Econometric Research. Random Variables. Statistical Inference.

Simple linear regression model (2 variables), Estimation of regression parameters by Ordinary Least Squares (OLS) method and maximum likelihood method. Properties of estimators. Test of significance. confidence interval and Analysis of Variance. Various functional forms of regression models.

General linear model (n variables, matrix notation)—Estimation of regression parameters by least squares methods. Properties of estimator. Test of significance. Aitken estimator.

Section 'B'

Violation of basic assumption—Autocorrelation. multicollinearity heteroskedasticity and specification error. D - W statistics. Distributed lag models - Koyck approach. adaptive expectations and partial adjustment models Almon approach.

Dummy variable.

Panel data - pooling of cross section and time series data. models - fixed effect and Random effect.

Section 'C'

Simultaneous equations model : Structural form and reduced form. Identification problem. Derivation of Order and Rank conditions. Estimation of simultaneous equations model - Ordinary least squares (OLS) Indirect Least Squares (ILS) and two stage least squares (2 SLS) methods.

Applied Econometrics : Estimation of Demand. Cost of Production Functions. Forecasting.

Note : Use of non-programmable calculator is permitted.

Books Recommended :

1. J. Kmenta : Elements of Econometrics.
2. Damodar Gujrati : Basic Econometrics.
3. J. Johnston : Econometric Methods (3rd edition).
4. G.S. Maddala : Econometrics.

Reference Books :

1. R. S. Pindyck and D. Z. Rubinfield : Econometric Methods and Econometric Forecasts.
2. Rao and Millar : Applied Econometrics.
3. H. Theil : Principles of Econometrics.
4. Michael D. Intrilligator : Econometric Models, Techniques and Applications.
5. J. Johnston and J. Dinardo : Econometric Methods. (4th edition).
6. H. Greene : Econometric Analysis
7. G.M.K. Madnani : Artthmiti— Avdharnayen Evam Vidhiya.

PAPER (xiii) SURVEY METHODS
Duration 3 Hours   Max. Marks : 100

Note : The paper will contain nine questions having three questions in each section. Candidates are required to attempt five questions in all selecting at least one question from each section.

Section 'A'

Sampling Methods. Principles Sample Surveys. Stages of Survey. Practical problems in planning, execution and analysis of survey. Random number tables and their uses in samples with equal probability (Simple random sampling) and proportional to size. Sampling and non-sampling errors. Concept of Sampling Distribution and simple uses of t, F and X_2 (chi Square)

Mathematical Expectation and Variance. Properties of Expoection and variance.

Point and Interval Estimators, properties of estimators : Unbiasedness. Effeciency, Consistency and Sufficiency. Testing of Hypothesis. Errors of Type I and II.

Section 'B'

Sampler Designs : Simpl. Random Sampling with & without replacement. relatives effeciency of WR and WOR

Stratified Samplings, proportional optimum and Neymann allocation. Gain in precision, Cluster sampling. Two stage sampling. Systematic sampling.

Indian official statistics. sources of data on national ... and its componenss. price indices public finance monetary and trade statistics. Estimates of Poverty and Consumption ... NSS Surveys.

Section 'C'

Regression analysis with one and two explanatory variables Multiplicative and additive models. Growth and elasticity equations.

Estimation of regression parameters and their standard errors. Interpretation of estimated equation with all the summary statistics viz., Standard errors and coefficient of determination. The problem of curve fitting. Fitting of linear, exponential and parabolic curves. Application in the estimation of elasticities and growth rates. Simple econometric analysis of time series, unit roat Analysis.

Note : Use of non-programmable calculator is permitted.

Books Recommended :

1. M. N. Murthy : Sampling Methods.
2. P. V. Sukhatme, B. V. Sukhantme and C. Ashok : Sampling Theory of Surveys with Applications.
3. Cochrance : Sampling Techniques.
4. S.C. Gupta and V. K. Kapoor : Fundamentals of Applied Statistics.
5. Damodar Gujarati. Basic Econometrics Statistics for Business and Economics, Anderson, Suweenly Williom, Thomson.

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UNIVERSITY OF RAJASTHAN JAIPUR

RULES FOR THE AWARD OF
GRACE MARKS

A. UNDER GRADUATE/POST-GRADUATE (MAIN/SUP-PLEMENTARY) EXAMINATION UNDER THE FACULTIES OF ARTS, FINE ARTS, SCIENCE, COMMERCE, SOCIAL SCIENCE, EDUCATION, MANAGEMENT, HOMOEOPATHY, LAW, AYURVEDA AND ENGINEERING & TECHNOLOGY.

Grace marks to the extent of 1% of the aggregate marks prescribed for an examination will be awarded to a candidate failing in not more than 25% of the total number of theory papers, practicals, sessionals, dissertation. viva-voce and the aggregate, as the case may be, in which minimum pass marks have been prescribed; provided the candidate passes the examination by the award of such Grace Marks. For the purpose of determining the number of 25% of the papers, only such theory papers, practicals, dissertation, viva-voce etc. would be considered. of which, the examination is conducted by the University.

N.B. : If 1% of the agregate marks of 25% of the papers works out in fraction, the same will be raised to the next whole number. For example, if the aggregate marks prescribed for the examination are 450, grace marks to the extent of 5 will be awarded to the candidate, similarly, if 25% of the total papers is 3.2 the same will be raised to 4 papers in which grace marks can be given.

General

1. A candidate who passes in a paper/practical or the aggregate by the award of grace marks will be deemed to have obtained the necessary minimum for a pass in that paper/practical or in the aggregate and shown in the marks sheet to have passed by grace. Grace marks will not be added to the marks obtained by a candidate from the examiners nor will the marks obtained by

the candidate be subject to any deduction due to award of grace marks in any other paper/practical or aggregate.

2. If a candidate passes the examination but misses First or Second Division by one mark, his aggregate will be raised by one mark so as to entile him for the first or second division, as the case may be. This one mark will be added to the paper in which he gets the least marks and also in the aggregate by showing + 1 in the tabulation register below the marks actually obtained by the candidate. The marks entered in the marks-sheet will be inclusive of one grace mark and it will not be shown separately.

3. Non-appearance of a candidate in any paper will make him ineligible for grace marks. The place of a passed candidate in the examination list will, however, be determined by the aggregate marks he secures from the examiners, and he will not, by the award of grace marks, become entitled to a higher division.

4. Distinction won in any subject at the examination is not to be forfeited on the score that a candidate has secured grace marks to pass the examination.

Note: The grace marks will be awarded only if the candidate appears in all the registered papers prescribed for the examination.