Maharshi Dayanand University Rohtak
Department of Economics

Diploma in Economic Data Analysis

1. Program Outcome

Students will be able to understand the basics of Economics

Students will be able to write research papers and assignments

Students also understand about how to use the Quantitative techniques in research

Development of the critical thinking

Students learned about how to use factual knowledge through the statistics and econometrics in research

2. Scheme of Examination

	First Semester			
Paper code		Theory	Internal	Total marks
20CPE11C1	Essential Economics for data appreciation	80	20	100
20CPE11C2	Quantitative technique and computer applications	80	20	100
20CPE11C3	Research Methodology	80	20	100
20CPE11C4	Project Work And Viva-Voce	150 (Project report)	50 (Viva voce)	200
	Second Semester			
20DPE12C1	Introduction to Data base of Indian economy	80	20	100
20DPE12C2	Public Finance and Policy in India	80	20	100
20DPE12C3	Development	80	20	100

	Economics			
20DPE12C4	Project work And Viva-Voce	150 (Project report)	50 (Viva voce)	200
	Total marks			1000

3. Syllabi

Program Name: Diploma in Economic Data Analysis   Program Code: DPE 1

Course Name: ESSENTIALECONOMICS FOR DATA APPRECIATION Course Code: 20CPE11C1

Max. Marks: 100

Credits: 4   **Written Exam: 80**
Time: 3 Hrs.   **Internal Assessment: 20**

Course Objectives
C01: To develop the understanding of basics of Economics.
C02: To develop the basic knowledge about national income concept.
C03: To develop the understanding of how the law of production and demand works in the market.
C04: To develop the basic understanding about the utility approaches.
C05: To give the knowledge about consumption theories.

Course Outcomes:
C01:   The course will make help the students to learn basic concepts of Economics.
C02:   The students will be familiarized with theories of Economics.
C03:   The students will be able to understand that how national income calculate in the economy.
C04:   The course will make help the students to learn the utility concepts.
C05:   The students will be familiarized with the theories of consumption.

UNIT – I
Nature and Scope of Microeconomics. Law of Demand, Demand of a Firm and Industry. Law of Supply and Determinants.

UNIT – II
Utility analysis: Cardinal and Ordinal approaches. Law of Production: Short run and Long run, Law of Cost; Short run and Long run Cost curves.

UNIT – III

Nature and Scope of Macroeconomics. National Income Concepts; Measurement and Limitations of National Income Statistics. Determination of Income and Employment: Classical theory and Keynesian theory of Income and Employment.

UNIT – IV

Consumption: consumption function, Keynesian Psychological law of consumption and its implication. Investment function and its types.

Note:
(A) Nine questions would be set in all.
(B) Question No. 1 based on the entire syllabus, would be compulsory. It would contain eight short answer questions of two marks each.
(C) There would be two questions (16 marks each) from each of four units.
(D) Candidates would be required to attend five questions (one compulsory and selecting one from each unit)

Suggested Readings:
- Koutsoyiannis,A. (1979): Modern Microeconomics (2nd ed.). Macmillan Press, London.
- Varian, H (2000): Microeconomic Analysis, W.W. Norton, New York.
- Ahuja, H. L. (2006): Advanced Economic Theory, Sultan Chand and Co., New Delhi.
- Lipsey R. G. and K.A. Christal (1999): Principales of Economics (9th ed.), Oxford University.
- Mankiw Gregory N (1968): Principle of Economics (3rd ed.), Thomson:3rd Indian Reprint.
- Ackley, G. (1978): Macroeconomics: Theory and Policy, Macmillan, New York.
- Shapiro, E. (1996): Macroeconomics Analysis, Galgotia Publication, New Delhi.

Program Name: Diploma in Economic Data Analysis.   Program Code: DPE 1

Course Name: Quantitative technique and computer applications.

   Course Code: 20CPE11C2

Credits: 4

Time: 3hrs.   **Max. Marks: 100**
                                                                   Written Exam: 80
                      Internal Assessment: 20

Course Objectives
C01: To understand about the quantitative tools use in research.
C02: To develop the basic understanding of the methods of data collection.
C03: To develop the knowledge of sampling methods use in research.
C04: To give the knowledge about basic econometrics.
C05: To develop the knowledge of different econometric models.

Course Outcomes
C01:   The course will develop the skill of learners to undertake research on economic issues
C02:   To familiarize students with the use of quantitative techniques and computer applications in Economics.
C03:   To familiarize with the basic tools and techniques of the statistics.
C04:   Students learned about the how to use quantitative tools and techniques by using computer.
C05:   Students learned about that how to choose sample and how to analyse data collected from sampling method.

<div align="center">Unit I</div>

Basic concepts: Population, Sample, Parameter, Statistic, frequency distribution, Cumulative frequency distribution, Central Tendency and Dispersion: Mean, Median, Mode, Geometric mean, Harmonic mean; Measures of dispersion; Range, Quartile deviation Mean deviation, Standard deviation; Skewness and Kurtosis

<div align="center">Unit II</div>

Sampling Techniques: Stratified clusters, Multistage and Systematic Sampling. Relationship between sample and data parameters: Sampling error: Sampling from Normal distribution: Sampling from non- normal populations: Sampling distribution of the mean and standard deviation. Testing of hypothesis and application of z, chi-square, t and f tests

<div align="center">Unit III</div>

Introduction to Econometrics, Regression and Correlation Analysis, Method of Ordinary Least Square (OLS), Assumptions of OLS and Violation of Assumptions of OLS, Multicollinearity, Heteroscadesticity and Autocorrelation, Demand forecasting and estimation of production functions

<div align="center">Unit IV</div>

Introduction to MS-Word and MS-Power Point and MS- Excel, Creation of data files, assigning names and labels to variables, sort cases, split files, import/export of files, Data Analysis using Excel and SPSS: Descriptive statistics, Comparing means, Correlation, ANOVA, parametric and non-parametric tests, Regression Analysis and preparation of graphs and diagrams.

Note:
(A) Nine questions would be set in all.
(B) Question No. 1 based on the entire syllabus, would be compulsory. It would contain eightshort answer questions of two marks each.
(C) There would be two questions (16 marks each) from each of four units.
(D) Candidates would be required to attend five questions (one compulsory and selecting one from each unit)

Suggested Readings:
- Gujrati DN.et.al. (2011): Basic Econometrics, Tata McGraw- Hill/Irwin.
- George Darren (2011): SPSS for Windows Step by Step: A simple Guide and Reference, Pearson Education, Prentice Hall.
- Foster J Jeremy (2001), Data Analysis Using SPSS for Windows Versions 8-10: A Beginner's Guide, Education, Delhi. Sage Publishing Ltd.
- Gupta S.C. ―Fundamentals of Statistics‖ S. Chand & Sons New Delhi (1993)
- Spiegel, Murry R ―Theory and problems of Statistics‖ (Schaum's outline series, McGraw Hill, 1992)
- Karmal P.H. and Polasek M. ―Applied Statistics for Economists (4th edition), Pitman, Australia

Program Name: Diploma in Economic Data Analysis. **Program Code: DPE 1**

Course Name: Research Methodology.

Course Code: 20CPE11C3

Credits: 4

Time: 3hrs. **Max. Marks: 100**
Written Exam: 80
Internal Assessment: 20

Course Objectives
C01: To familiarize students with basic research and the research process.
C02: To enable students in conducting research work.
C03: To familiarize students with paper writing skills.
C04: To impart knowledge for enabling students to develop data analytics skills.
C05: To familiarize students with the data collection process.

Course Outcome
C01: Develop understanding on various kinds of research.
C02: Have basic knowledge on qualitative research techniques.
C03: Have adequate knowledge on measurement and scaling techniques.
C04: Have basic awareness of data analysis and hypothesis testing procedures.
C05: Students will learn how to collect data.

Unit-I

Research: An Introduction, objectives, importance and limitations of research in social science. Ethics in Social science research. Relationship between theory and research. Types and research methods in economics.

Unit-II

Review of Literature: Need and purpose for reviewing literature, Sources of literature. Hypothesis: meaning, types, sources, functions and characteristics of a good hypothesis.

Sampling: Census vs. Sampling, Techniques and methods of sampling, sampling and non-sampling Errors.

Unit-III

Data Collection: Meaning, types, Sources and methods of collecting data.

Paper writing: Introduction, Types of manuscripts, General instructions for authors, Selection of journal, submission of manuscript. Parts of papers.

Unit-IV

Data Processing: Editing, coding, classification tabulation and analysis of data.

Report Writing: Meaning, purpose and types of reports; steps, format and final presentation of research report. Documentation: footnotes and bibliography.

Note:
(A) Nine questions would be set in all.
(B) Question No. 1 based on the entire syllabus, would be compulsory. It would contain eight short answer questions of two marks each.
(C) There would be two questions (16 marks each) from each of four units.
(D) Candidates would be required to attend five questions (one compulsory and selecting one from each unit)

Suggested Readings:
- Clive Seale (2004): Social Research Methods- A Reader, Routledge Student Readers, Indian Print.
- William J. et.al.(2006): Methods in Social Research, Surjeet Publications, Delh
- Moser CA and Kalton G(1985): Survey Methods in Social Investigation, Darmouth Publishing Co. Ltd. England.
- Cooper D.R. and Pamela S Schindler(2013): Business Research Methods, Tata McGraw-Hill/Irwin
- Krishnaswamy KN, et.al.(2009): Management Research Methodology: Integration of Principles, Methods and Technique , Pearson Education India, New Delhi
- Krishnaswamy M and M Ranganathan(2014): Methodology of Research in Social Sciences, Himalaya Publishing House, New Delhi.
- Bhandarkar PL and TS Wilkinson(2010): Methodology and Techniques of Social Research, Himalaya, New Delhi.

Program Name: Diploma in Economic Data Analysis.   Program Code: DPE 1

Course Name: Introduction to data base of Indian economy.

        Course Code: 20DPE12C1

Credits: 4

Time: 3hrs.   **Max. Marks: 100**
                                                                               Written Exam: 80
        Internal Assessment: 20

Course Objectives
C01: To give the basic knowledge of types of data bases uses in the economy.
C02: To create the awareness regarding the different problems faces by Indian Economy.
C03: To give the knowledge about the monetary system of the Economy and how the Central bank control it.
C04: To give the basic knowledge of the different sectors of the Economy.
C05: To learn about the balance of payment and trade between the Indian Economy and other countries.

Course Outcomes
C01: The course will make students aware about the Indian Economic Scenario as well as help then building analytical abilities about the Government policies and documents.
C02: The students will be familiarized with different sources of data base of Indian Economy.
C03: Students will familiarize with the problems of Indian Economy.
C04:   The students will be able to understand the about the different sectors in the economy and how they are interlinked.
C05:   Students will be able to understand the different indicators of inflation and how Central bank of an economy tackle the problem of inflation.

UNIT-I

Types of database and their classification: Statistical, Economic, Financial etc. National Income Accounting – a general understanding on how they are calculated and different sources of data related to it.

UNIT-II

Primary, Secondary and Tertiary Sectors: Agriculture Census, latest Annual Report, (Department of Agriculture, Cooperation & Farmers Welfare), Annual Survey of Industry, Annual Report of RBI for these sectors.

Inflation: Types of inflation based on the rate of growth of the prices and based on the causes, inflation measurements like CPI, WPI and GDP deflator. Role of Government and RBI in controlling inflation.

UNIT-III

Poverty and Unemployment: Definition, Poverty estimates by NSSO, Different Committees set up to measure poverty and a general understanding of how each committee differed in their measurement. Different types of unemployment, Globalisation and its impact on labour, Period Labour Force Survey.

UNIT-IV

Balance of Payments: Concept of BOP, trends and composition, India's export-import policy. Trends direction and composition of foreign trade.

International Economic Organisation: IMF and World Bank Groups their functions and reports published by WB and IMF. Relevance of IMF and WB to the developing countries like India. WTO: Difference between GATT and WTO, WTO and India.

Note:

(A) Nine questions would be set in all.

(B) Question No. 1 based on the entire syllabus, would be compulsory. It would contain eight Short answer questions of two marks each.

(C) There would be two questions (16 marks each) from each of four units.

(D) Candidates would be required to attend five questions (one compulsory and selecting one From each unit)

Suggested Readings:

- Kapila, U., *Indian Economy since Independence*, Academic Foundation. Government of India,
- Economic Survey: Government of India. Latest Issue.
- Union Budget: Government of India. Latest Issue.
- Mishra, S.K., et.al, Indian Economy- 151 Development Experience, Latest edition, Himalaya Publishing House, Mumbai.
- Datta, R., et.al, (2003), Indian Economy, latest Edition S. Chand & Company Ltd. New Delhi.
- Department of Agriculture, Cooperation & Farmers Welfare.
- Reserve Bank of India (2019), *Handbook of Statistics on Indian Economy,* Mumbai.

Program Name: Diploma in Economic Data Analysis.   **Program Code: DPE 1**

Course Name: Public Finance and Policy in India

          Course Code: 20DPE12C2

Credits: 4

Time: 3hrs.   **Max. Marks: 100**
                                                                     Written Exam: 80
                                        Internal Assessment: 20

Course Objectives
C01: To understand the role of government in Market Economy.
C02: To develop the basic understanding of fiscal policy and macro-economic stability.
C03: To understand source revenue of the government.
C04: To understand the Indian fiscal federalism and their implications.
C05: To develop understating of budget and its fiscal objectives.

Course Outcomes
C01: The course will develop skill to understand the role of government in market economy.
C02: learners will be able to correlated macro-economic issues and their implication in market economy.
C03: students will familiarize with the issues of Indian fiscal federalism.
C04: students will be able to justify fiscal issues in their research.
C05: Students learn fiscal reforms and their effects on economic development.

Unit I

Meaning and Scope of Public Finance; Economic rational of Government and Fiscal Policy, Externalities and Market failure, Fiscal Functions; Public Good, Private Good, Mixed Good, Merit Good, Club Good.

Unit II

Budget: Economic and Functional classification, Budget making process in India, Concepts of Budgetary deficit and capital formation. Budgetary Reforms in India.

Unit III

Fiscal Federalism India: Centre-State and State-Local Financial Relations in India. Finance Commission and NITI Aayog.

Unit IV

Theories of taxation: Ability to pay, Benefit principle, taxable capacity, direct and indirect taxes, incidence of taxation. Economic Effects of taxation.

Note:
(A) Nine questions would be set in all.

(B) Question No. 1 based on the entire syllabus, would be compulsory. It would contain eight Short answer questions of two marks each.
(C) There would be two questions (16 marks each) from each of four units.
(D) Candidates would be required to attend five questions (one compulsory and selecting onefrom each unit)

Suggested Readings:

- Sury, M.M. (2009). Budgets and Budgetary Procedures in India. M.M. Sury, New Century Publications.

- Musgrave, R.A. & Musgrave, P.B. (2017), Public Economics in Theory and Practice, McGraw Hill Education (India) Private Limited, Chennai, India

- Chakraborty, L.S. (2016). Fiscal Consolidation, Budget Deficits and the Macro Economy, Sage Publication Pvt. Ltd. New Delhi, India.

- Rangarajan, C. and Srivastava, D.K. (2011), Federalism and Fiscal Transfers in India, Oxford University Press, New Delhi, India.

- Reddy, Y.V. and Reddy, G.R. (2019), Indian Fiscal Federalism, Oxford University Press New Delhi, India.

- Srivastava, D.K. (2005) Issues in Indian Public Finance, New Century Publications, New Delhi, India.

Program Name: Diploma in Economic Data Analysis.   **Program Code: DPE 1**

Course Name: Development Economics.

          Course Code: 20DPE12C3

Credits: 4

Time: 3hrs.   **Max. Marks: 100**
                                                                                     Written Exam: 80
                                        Internal Assessment: 20

Course Objectives
C01: To make students familiar with economic theories, models and their relevance.
C02: To provide students with the essential tools and concepts of development economics.
C03: To make the students familiar with the tools, techniques and methods of empirical economics for economic development.
C04: To provide the basic knowledge to students of the core concepts and quantitative tools to analyze and research real world problems and evaluate alternative economic policy proposals on economic development issues.
C05: To make the students familiar with the concept of poverty and it various measures.

Course Outcomes

C01: The course will make the students to acquaint with the various perspectives of economic growth and its relevance.

C02: Students will become familiar with factors affecting economic growth and development.

CO3: Students will be able to understand the conceptual bases of income measurement, physical quality of life index, poverty, inequality and development gap and role of various institutions in economic growth and development.

C04: To give students in depth knowledge into special fields of choice like agricultural economics, industrial economics, development economics, international trade etc.

C05: Students will be able to learn the core concepts and quantitative tools to analyze and evaluate alternative economic policy proposals on economic development issues.

UNIT-I

Economics of Growth and Development: Factors affecting Economic Growth, capital, labour and technology; Determinants and measurement indicators (PQLI and HDI) of economic development, Importance of agriculture and industry in economic development, Poverty – indicators and measurement.

UNIT-II

Classical Theories of Development: Contribution of Adam Smith, Ricardo, Karl Marx and Schumpeter.

UNIT-III

Trade and Development: Trade as an engine of growth, two gap analysis, Prebisch, Singer and Myrdal views, gains from trade and LDCs, role of Foreign Direct Investment and Multinational Corporations in the emerging scenario.

UNIT-IV

Growth Models: Harrod and Domar Model; Growth Models of Solow, Joan Robinson and Kaldor, Plan models in India, Endogenous growth.

Note:

(A) Nine questions would be set in all.

(B) Question No. 1 based on the entire syllabus, would be compulsory. It would contain eight short answer questions of two marks each.

(C) There would be two questions (16 marks each) from each of four units.

(D) Candidates would be required to attend five questions (one compulsory and selecting one from each unit)

Suggested Readings

- Adelman, I. (1961), Theories of Economic Growth and Development, Stanford University Press, Stanford.
- Barro, R. and X. Salai- Martin, Economic Growth, McGraw Hill, New York.
- Behrman, S. and T.N. Srinivasan (1995), Handbook of Development Economics, Vol. 3, Elsevier, Amsterdam.
- Brown, M. (1966), On the Theory and Measurement of Technical Change, Cambridge, University Press, Cambridge, Mass.
- Chakravarti, S. (1982), Alternative Approaches to the Theory of Economic Growth, Oxford University Press, New Delhi.

- Chenery, H. and T.N. Srinivasan (Eds.) (1989), Handbook of Development Economics, Vols. 1 & 2, Elsevier, Amsterdam.
- Ghatak, S. (1986), An Introduction to Development Economics, Allen and Unwin, London.
- Gillis, M., D.H. Perkins, M. Romer and D.R. Snodgrass (1992), Economics of Development, (3rd Edition), W.W. Norton, New York.
- Higgins, B. (1959), Economic Development, W.W. Norton, New York.
- Jones, HG.(1975), An Introduction to Modern Theories of Economic Growth, Nelson, London. - Kindleberger, C.P. (1977), Economic Development, (3rd Edition), McGraw Hill, New York.
- Meier, G.M. and J.E.Rauch (2005), Leading Issues in Economic Development, (8th Edition), Oxford University Press, New Delhi.
- Sen, A.K. (Ed.) (1990), Growth Economics, Penguin, Harmondsworth.
- Todaro, M.P. and S.C. Smith (2003), (8th Edition), Economic Development, Pearson Education, Delhi.
- Thirwal, A.P. (1999), (6th Edition), Growth and Development, Macmillan, U.K Reading List: - Meir, G.M. (1995), Leading Issues in Economic Development, Oxford University Press, New Delhi.
- Mishra S.K. and V.K. Puri, Economics of Development and Planning, Himalaya Publishing House, Mumbai.
- Todaro, M.P. Economic Development, Latest Edition, Longman, London.
- Thiwal, A.P. (2003), (6th Edition), Growth and Development, Seventh Edition, Macmillan, New York.
- Hogendorn, J. (1996), Economic Development, Addison, Wesley, New York.