SOPHIA GIRLS' COLLEGE, (AUTONOMOUS) AJMER

Scheme of Examination
And
SYLLABUS

2018-19 (Batch)

FOR

BACHELOR OF ARTS HONOURS (ECONOMICS)

Semester I & II

BACHELOR OF ARTS HONOURS

Eligibility for admission in First Year of BA (Hons.) is 10+2 examination of any board with at least 50% marks. As regards admission on reserved category seats government rules will be applicable.

SCHEME OF EXAMINATION

The number of the paper and the maximum marks for each paper together, with the minimum marks required to pass are shown against each subject separately. It will be necessary for a candidate to pass in the theory as well as the practical part of a subject/paper, wherever prescribed, separately.

Classification of successful candidates shall be as follows:

First Division   60%   of the aggregate marks prescribed in Semesters I to VI taken together

Second Division   50%

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

- For passing a candidate shall have to secure at least 40% marks in each course (Theory and Practical separately).
- No division shall be awarded in Semesters I to V.
- Whenever a candidate appears for a due paper examination, she will do so according to the syllabus in force.
- A candidate not appearing in any examination/absent in any paper of term end examination shall be considered as having DUE in those papers.

A. Subsidiary subjects:

A candidate shall be required to opt for anyone subsidiary subject out of the following subjects from BA Pass Course:

1. Political Science
2. Geography
3. History
4. Mathematics
5. Psychology
6. Home Science
7. Physical Education
8. VCA

(Contents of subject shall be same as prescribed for the optional subject of B.A Examination)

B. Scheme (Subsidiary Subjects)

The scheme of Examination the course of study and text books for subsidiary subjects of Honours Sem I to VI Examination shall be the same as prescribed for the optical subject of the B.A. (Subject) Sem I VI Examination.

End Semester Examination Pattern

Maximum Marks: 70   **Duration: 2 ½ Hrs.**

<div align="center">

Section A   10 x 1 =10 marks

</div>

Contains 10 Questions of 1 mark each and all are compulsory.

Three questions from each unit and one extra question from any one unit. 3 + 3 + 4 = 10 Questions

<div align="center">

Section B   3 x 5 = 15 marks

</div>

Contains 3 questions with internal choice (Two questions from each unit).Each Question carries 5 marks.

A student has to attempt 3 questions, choosing at least one question from each unit.

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Section C   3 x 15 = 45 marks

</div>

Contains 3 questions with internal choice (Two questions from each unit). Each Question carries 15 marks.

A student has to attempt 3 questions, choosing at least one question from each unit.

Course Structure in Semester I

Compulsory

Paper Code	Paper Title	Max. Marks	Min. Marks	Duration
GEN-101	General English	50	20	1 Hr.

Optional

	Semester – I					
Paper Code	Theory Papers	CIA	ESE	Max. Marks	Min. Marks	Duration
ECOH - 101	Microeconomics I	30	70	100	40	2 ½ Hrs.
ECOH - 102	Economic Thought	30	70	100	40	2 ½ Hrs.
ECOH - 103	Indian Economy I	30	70	100	40	2 ½ Hrs.
ECOH - 104	Quantitative Techniques And Statistical Method I	30	70	100	40	2 ½ Hrs.
			Total	400	160	

GEN 101 – General English

Max. Marks: 50

Min. Marks: 20
Duration: 1 Hr

Learning Outcome:

On successful completion of the course, the students will be able to:-
1. Get acquainted with the different concepts of Grammar.
2. Enhance their reading and writing skills of the students.
3. Develop a practice of using idioms and phrasal verbs in everyday conversations.
4. Have a cutting edge in the competitive and professional world.

Unit I

SVOCA (Subject, Verb, Object, Complement, Adverbial), Transformation of sentence (Active Passive and Direct Indirect), Modals, Tense usage, Homophones and Homonyms,

- **IDIOMS**

1. A penny for your thoughts
2. Actions speak louder than words
3. At the drop of a hat
4. Ball is in your court
5. Barking up the wrong tree
6. Beat around the bush
7. Best of both worlds
8. Bite off more than you can chew
9. Blessing in disguise
10. Burn the midnight oil
11. Can't judge a book by its cover
12. Cross that bridge when you come to it
13. Cry over spilt milk
14. Curiosity killed the cat
15. Don't count your chickens before the eggs have hatched
16. Don't put all your eggs in one basket
17. Every cloud has a silver lining
18. Feel a bit under the weather
19. Give the benefit of the doubt
20. Hear it on the grapevine
21. Hit the nail on the head
22. In the heat of the moment
23. Kill two birds with one stone
24. Last straw
25. Let sleeping dogs lie
26. Let the cat out of the bag
27. Make a long story short
28. Miss the boat
29. Off one's rocker
30. Once in a blue moon
31. Piece of cake

3

32. Put wool over other people's eyes
33. See eye to eye
34. Sit on the fence
35. Speak of the devil!
36. Take with a grain of salt
37. Taste of your own medicine
38. To hear something straight from the horse's mouth
39. A Picture paints a thousand words
40. Method to my madness

- **Phrasal verbs**
  1. Break: Break away, Break down, Break off, Break up
  2. Bring: Bring about, Bring in, Bring up, Bring down
  3. Come: Come by, Come across, Come upon
  4. Carry: Carry out, Carry on, Carry off, Carry over
  5. Call: Call on, Call off, Call at
  6. Get: Get Along, Get Away, Get By, Get Through, Get Over
  7. Give: Give up, Give away, Give in
  8. Hard: Hard up, Hard of hearing, Hard to please
  9. Look: look after, look into, look forward to, look up to
  10. Put: put out, put off, put up, put up with
  11. Run: run after, run down, run over, run out of
  12. Take: take after, take up, take to

Unit II

Comprehension, Précis writing

Unit III

Formal and Informal Letters- Job Application, Resume and Cover letter, Composition, Report Writing

Reference Books:
- A Practical English Grammar (Oxford Paper Back)   : A.J. Thomson
- Intermediate English Practice Book (Orient Longman)   : S.Pit Corder :
- Strengthen Your English (OUP 1973)   :Bhaskaran and Hordburgh
- The English Errors Of Indian Students (OUP)   :T.l.h. Smith – Pearce
- A Practical Course of English (Ramesh Book Depot, Jaipur) :I.K. Sharma and V.D. Singh

ECOH – 101 Microeconomics-I

Max. Marks: 100   **Min. Marks: 40**
                                                   Duration : 2 ½ Hrs

Learning Outcomes: On successful completion of the course the student will be able to-
1. Illustrate the basic framework of micro-economics.
2. Anticipate the consumer behavior.
3. Deduce the actions of a producer over a period of time.
4. Build competency and academic excellence for competition exams and to develop employability related skills.

UNIT I

Nature and scope of Economics; Methodology in Economics; Choice as an economic problem; basic postulates; Role of Price Mechanism; Demand and Supply- Basic framework and applications; Market equilibrium.

UNIT 2

Utility: Cardinal and Ordinal approaches; Indifference curve – Concepts and properties, Budget line, Consumers equilibrium: Price, Income and Substitution effect (Hicks and Slutsky); Giffen goods; Engle curve; Elasticity of demand: Price, Income and Cross; Consumer surplus

UNIT 3

Production function: Law of variable proportions, Returns to scale, Concepts of Isoquants, Isocost line, Least cost combinations, Concept of Ridge lines, Economies of scale; Expansion path.

Reference Books:
- Samuelson P.A & W.O Nordhaus (1998), Economics 16th Edition, Tata McGraw Hill, New Delhi.
- Mankiw. Gregory. N (2007), Economics: Principles & Applications 4th Edition, India edition by South Western a part of Cengage Learning, Cengage Learning India Pvt. Ltd.
- Koutsoyiannis, A (2013), Modern Microeconomics, 2nd Edition, Macmillan Press, London.
- Verian H. (2000), Microeconomics Analysis, W.W Norton, New York.
- Sen, A (1999), Microeconomics: Theory & Applications, Oxford University Press, New Delhi.
- Pindyck, R.S, D.L Rubinfield & P.L Mehta (2008), Microeconomics, 6th Edition, Dorling Kinderslay (India) Pvt. Ltd., Licenses of Pearson Education in South Asia.
- Varian H.R (2000), Intermediate Microeconomics: A Modern Approach, 5th Edition, East-West Press, New Delhi.
- Case K.E & Ray C. Fair (2007), Principles of Economics, Pearson Education Inc., 8th Edition.
- Stiglitz J.E & Carl E. Walsh (2007), Economics 4th Edition, W.W Norton & Company Inc. New York, International Student Edition.

ECOH – 102   Economic Thought

Max. Marks: 100   **Min. Marks: 40**
                                                                       Duration : 2 ½ Hrs

Learning Outcomes: On successful completion of the course the student will be able to-
1. Outline the ideas of Mercantilists, Physiocrats and Classical Thinkers.
2. Outline the ideas of Marginalist and Keynes.
3. Outline the ideas of Indian Thinkers.

UNIT I

Mercantilist, Physiocratic , Classical ; Adam Smith(Theory of Value , Division of labor) , Ricardo(Theory of Distribution , Theory of Rent) , Says, Thomas Malthus(Theory of Population), Marxist economics.

UNIT II

Marginalist; Jevons, Menger(Theory of Utility) , Walras; Alfred Marshall(Theory of Demand , Supply , Distribution),Keynesian Economics.

UNIT III

Indian Thinkers- Manu, Kautilya, Dada Bhai Naoroji, Mahatma Gandhi, B.R. Ambedkar, DeenDayal Upadhyay, Amartya Sen.

Reference Books:
- H.L Bhatia (2000), History of Economic Thought, Vikas publishing, New Delhi.
- Steven G. and Warren J. Samuels [2013]. The History of Economic Thought.
- J.M. Keynes (2005), General Theory of Employment Interest and Money, Prometheus Book.
- Landreth, Harry and David C. Colander(2002). History of Economic Thought. Boston and Toronto: Houghton Mufflin Company.
- Hunt E.K (1992) History of Economic Thought, Harper Collins
- R.R Paul (2014) History of Economic Thought,
- M. L. Jhingan , (2011) History of Economic thought,

ECOH – 103 Indian Economy-I

Max. Marks: 100   **Min. Marks:40**
                                                                       Duration : 2 ½ Hrs

Learning Outcomes: On successful completion of the course the student will be able to-
1. Examine the basic demographic features of the Indian Economy.
2. Critically analyze the performance of Indian agriculture.
3. Appraise the Indian industrial performance after independence.

4. Build competency and academic excellence for competition exams and to develop employability related skills.

UNIT I

Basic features of Indian Economy: Natural resources (Land, Water, Forest); Broad Demographic features: Population size and growth rates, Problem of over population, Population policy, Sex composition, Rural-urban migration, Occupational distribution, Infrastructure development, National Income, Religious composition, Human Development Index.

UNIT II

Agriculture: Nature and importance; Trends in agricultural production; Factors determining productivity; Land reforms; Green Revolution; New Agricultural Strategy; Rural credit; Agricultural marketing; Agriculture and WTO; India's Food Policy; Linkage between agriculture and other sectors.

UNIT III

Industry: Industrial development during the Planning period; Industrial Policy of 1991; Industrial Financial Institutions- IFCI, ICICI, IDBI, SIDBI, IIBI, SFC'S; Role, growth, problems and recent policy of small sector industries and public sector enterprises.

Reference Books:

- Datt R. & K.P.M Sundharam (2012), Indian Economy, S. Chand & Co. Ltd., New Delhi.
- Misra S.K & V.K Puri (2012), Indian Economy, Himalaya Publication House, Mumbai.
- Agarwal A.N, Indian Economy: Problems of Development and Planning (2006).
- Uma Kapila (2012-13), Indian Economy since Independence, 23rd edition, Academic Foundation, New Delhi.
- Government of India, Economic Survey (Annual), Ministry of Finance, New Delhi.
- Government of India, Planning Commission: Five Year Plan Development.
- Jalan, B. (1992), The Indian Economy- Problems and Prospects, Viking, New Delhi.
- Jalan, B. (1996), The India's Economic Policy- Preparing for the Twenty First Century, Viking, New Delhi.
- Reserve Bank of India, Report on Currency and Finance (Annual).
- Ahluwalia, I.J & I.M.D Little (Editions) (1999), India's Economic Reforms and Development (Essays in honour of Manmohan Singh), Oxford University Press, New Delhi.
- Bardhan P.K (9th Edition) (1999), The Political Economy of Development in India, Oxford University Press, New Delhi.

ECOH - 104: Quantitative Techniques and Statistical Method I

Max. Marks: 100   **Min. Marks: 40**
                                                                 Duration : 2 ½ Hrs

Learning Outcomes: On successful completion of the course the student will be able to-
1. Interpret the basic concepts of quantitative techniques in economics.
2. To introduce the basic concepts of statistics.
3. Compute the central tendencies & dispersion.
4. Build competency & academic excellence for the competitive exams & to develop research skills.

UNIT I

Basic Concepts: Variables, Sets, Functions, Identities, Systems of equations, Application of straight line system, Slope of the line, Homogeneous function; Calculus- Differentiation of a function, Maxima, Minima and Point of Inflexion.

UNIT II

Matrix and Determinants: Various types of Matrices, Determinants, Inverse of a Matrix, Crammer's Rule; Introduction to Statistics- Population, Sample, Parameter, Frequency distribution, Cumulative frequency; Graphical and Diagrammatic representation of data; Techniques of data collection; Concepts and types of Sampling; Primary and Secondary data.

UNIT III

Measures of Central Tendency: Mean, Median, Mode, Geometric Mean and Harmonic Mean; Measures of Dispersion: Range, Mean Deviation, Standard Deviation, Coefficient of Variation, Quartile Deviation; Skewness and Kurtosis.

Reference Books:
- Allen R.G.D (1974), Mathematical Analysis for Economists, Macmillan Press & ELBS, London.
- Chiang, A.C (1986), Fundamental Methods of Mathematical Economics, Mc Graw Hill, New York.
- B.C Madnani & G.M Mehta (2007), Mathematics for Economists, S. Chand Publication.
- Gupta S.P (2001), Statistical Methods, S. Chand & Sons.
- K.N Nagar, S.N Mittal, M.L Oswal, S.S Modi (2012), Fundamentals of Statistics, Ist Edition, Minakshi Prakashan, Meerut.
- Sharma J.K. (2013, Business Statistics, 2nd Edition, Pearson, New Delhi.
- Baumol V.J (1984), Economic Theory & Operations Analysis, Prentice Hall, Englewood Cliffs, New Jersey.
- Sydsaeter, Knut & Hammond, Peter. J. (2012), Mathematics for Economic Analysis, 7th Impression, Pearson Education, South Asia.
- Simon Carl P. & Blume Lawrence (2012), Mathematics for Economists, 5th Edition, Viva Norton Student Edition, New Delhi.

Course Structure in Semester II

Compulsory

Paper Code	Paper Title	Max. Marks	Min. Marks	Duration
GEN-102	General Hindi	50	20	1 Hr.

Optional

Semester – II						
Papers Code	Theory Papers	CIA	ESE	Max. Marks	Min. Marks	Duration
ECOH - 201	Microeconomics II	30	70	100	40	2 ½ Hrs.
ECOH - 202	Environmental Economics	30	70	100	40	2 ½ Hrs.
ECOH - 203	Indian Economy II	30	70	100	40	2 ½ Hrs.
ECOH - 204	Quantitative Techniques And Statistical Method II	30	70	100	40	2 ½ Hrs.
			Total	400	160	

GEN-102 सामान्य हिंदी

अधिकतमः अंक : 50

न्यूनतम अंकः 20
अवधिः 1 घंटे

अध्ययन के परिणाम :

पाठ्यक्रम पूर्ण होने के बाद विद्यार्थी योग्य होंगे –

1. विद्यार्थियों में हिंदी व्याकरणिक ज्ञान का विकास होना ।

व्याकरण – भाग

<table>
<tr><td align="center">इकाई-1</td><td align="right">अंक योजना</td></tr>
</table>

1. संज्ञा, सर्वनाम, विशेषण, क्रिया,   - 10 अंक
2. क्रिया विशेषण ,संधि, समास, विलोम शब्द   - 10 अंक

<div align="center">इकाई-2</div>

1. शुद्धीकरण [शब्द शुद्धि ,वाक्यशुद्धि] पारिभाषिक शब्दावली-[अंग्रेजी शब्दों के हिंदी
   समानार्थक शब्द]   - 5 अंक
2. शब्द युग्म- अर्थ भेद , पर्यायवाची शब्द , उपसर्ग , प्रत्यय,   - 5 अंक

<div align="center">इकाई-3</div>

3. निबन्ध लेखन   - 10 अंक
4. पत्र लेखन –आवेदन पत्र, प्रार्थना पत्र , बधाई पत्र   - 5 अंक
3. अपठित गद्यांश   - 5 अंक

सहायक पुस्तकें-

- हिंदी व्याकरण –डॉ. इंदिरा अशोक
- हिंदी व्याकरण कोश –डॉ. दिनेशचंद्रशर्मा,श्रीमती पुष्पा शर्मा
- हिंदी व्याकरण –डॉ. हरिचरण शर्मा
- हिंदीव्याकरण –डॉ. राजेश्वर प्रसाद चतुर्वेदी
- हिन्दी व्याकरण - भोलानाथ तिवारी

ECOH - 201: Microeconomics II

Max. Marks: 100   **Min. Marks: 40**
                                                                                       Duration : 2 ½ Hrs

Learning Outcomes: On successful completion of the course the student will be able to-
1. Illustrate the concept of equilibrium under different market conditions.
2. Analyse the general theories of distribution.
3. Assess the concept of welfare theories.
4. Build competency and academic excellence for competition exams and to develop employability related skills.

UNIT I

Concepts of Revenue and Cost, Relationships between Average Revenue, Marginal Revenue and Price elasticity of demand. Market Structures: Perfect and Imperfect markets; Price and output determination in Perfect competition, Monopoly, Price discrimination under Monopoly; Measures of Monopoly power; Monopolistic competition, Oligopoly (Paul M. Sweezy model)

UNIT II

General theories of Distribution: The Marginal Productivity Theory and Modern Theory; Theories of Wage Determination; Collective bargaining, Wage Differentials; Rent: Scarcity Rent, Differential Rent, Quasi Rent; Interest: Classical, Neo classical and Keynesian Theories; Profits: Innovation, Risk and Uncertainty Theories.

UNIT III

Problems in measuring Welfare; Classical Welfare Economics; Pareto Criterion (Production, Consumption and Distribution); Concept of a Social Welfare Function; Compensation Principle: Kaldor and Hicks.

Reference Books:

- Samuelson P.A & W.O Nordhaus (1998), Economics 16th Edition, Tata McGraw Hill, New Delhi.
- Mankiw. Gregory. N (2007), Economics: Principles & Applications 4th Edition, India edition by South Western a part of Cengage Learning, Cengage Learning India Pvt. Ltd.

- Koutsoyiannis, A (1979), Modern Microeconomics, 2nd Edition, Macmillan Press, London.
- Verian H. (2000), Microeconomics Analysis, W.W Norton, New York.
- Ahuja H.L (2003), Advanced Economic Theory: Microeconomic Analysis, 13th Edition, S. Chand & Co. Ltd., New Delhi.
- Sen, A (1999), Microeconomics: Theory & Applications, Oxford University Press, New Delhi.
- Pindyck, R.S, D.L Rubinfield & P.L Mehta (2008), Microeconomics, 6th Edition, Dorling Kinderslay (India) Pvt. Ltd., Licenses of Pearson Education in South Asia
- Varian H.R (2000), Intermediate Microeconomics: A Modern Approach, 5th Edition, East-West Press, New Delhi.
- Case K.E & Ray C. Fair (2007), Principles of Economics, Pearson Education Inc., 8th Edition.
- Stiglitz J.E & Carl E. Walsh (2007), Economics 4th Edition, W.W Norton & Company Inc. New York, International Student Edition.

ECOH – 202 Environmental Economics

Max. Marks: 100   **Min. Marks: 40**
                                                                                                              Duration : 2 ½ Hrs

Learning Outcomes: On successful completion of the course the student will be able to-
1. Explain the basic concept of environmental economics.
2. Evaluate various methods of pollution abatements
3. Summarize the economics of climate change.
4. Build competency and academic excellence for competition exams and to develop employability related skills.

UNIT 1

What is environmental economics? Distinction between environment economics and natural resources economics. Environment economics linkages. Environment as a necessity and luxury. Issues of environment: problems of market failure: public bad and externalities. Social choice of optimum pollution.

UNIT 2

Theory of environmental regulation: price rationing, Pigovian taxes; Subsidies for Abatement of pollution-the case in short and long run; Property Rights and the Coasian Approach: bargain Solution. Types of pollution; laws and regulations regarding pollution control (Indian Context); food security.

UNIT 3

Sustainable development- concept and measurement; implementation of environmental policies; international environmental problem, trans-boundary environmental problems. Economics of climate change; trade and environment.

Reference Books:
- Singh, Katar & Shishodia, Anil (2007), Environmental Economics- Theory and Applications, 1st Edition, Sage Publications India Pvt. Ltd., New Delhi
- Kolstad, Charles D. (2005), Environmental Economics, Oxford University Press Inc., New Delhi
- Bhattacharya, Rabindra N. (Ed.)Environmental Economics: An Indian Perspective, Oxford University Press
- Joshi, M.V., Theories and Approaches of Environmental Economics, Atlantic Publishers & Distributors, New Delhi.
- M.N.Murthy Environment, Sustainable Development, and Well-being Valuation, taxes and Incentives,OUP May 2009.
- Oates W.E. (ed.) The Economics of the environment, An Elgar Critical Writings Reader, Edward Elgar, 1994.
- Kanchan Chopra and Vikram Dayal (ed.) Hand book of Environmental Economics in India. Oxford University Press 2009.

ECOH – 203 Indian Economy II

Max. Marks: 100   **Min. Marks: 40**
                                                                       Duration : 2 ½ Hrs

Learning Outcomes: On successful completion of the course the student will be able to-
1. Trace the planning objectives of the Govt. of India.
2. Evaluate the trends of the foreign sector.
3. Hypothesize about the development of India keeping in mind the major concerns like poverty, unemployment and inflation.
4. Build competency and academic excellence for competition exams and to develop employability related skills.

UNIT I

Planning in India: Objectives, Strategy, Achievements and Failures; Financing of Plan expenditure; Economic Reforms- Rationale behind Economic Reforms; Economic Reforms of 1991 in the Financial, Industrial and External Sector. Current Five Year Plan: Objectives, Allocation and Targets.

UNIT II

External Sector: Role, Trends, Composition and Direction of India's Foreign Trade; Balance of Payments; Foreign capital: Aid, FDI, FII, MNC's and their impact on Indian Economy.

UNIT III

 Important areas of concern: Poverty, Unemployment, Inflation, Subsidies (Concept, Trends, Causes, Effects, Controlling measures).

Reference Books:
- Datt R. & K.P.M Sundharam (2012), Indian Economy, S. Chand & Co. Ltd., New Delhi.
- Misra S.K & V.K Puri (2012), Indian Economy, Himalaya Publication House, Mumbai.
- Agarwal A.N, Indian Economy: Problems of Development and Planning (2006).
- Uma Kapila (2012-13), Indian Economy since Independence, 23rd edition, Academic Foundation, New Delhi.
- Government of India, Economic Survey (Annual), Ministry of Finance, New Delhi.
- Government of India, Planning Commission: Five Year Plan Development.
- Jalan, B. (1992), The Indian Economy- Problems and Prospects, Viking, New Delhi.
- Jalan, B. (1996), The India's Economic Policy- Preparing for the Twenty First Century, Viking, New Delhi.
- Reserve Bank of India, Report on Currency and Finance (Annual).
- Ahluwalia, I.J & I.M.D Little (Editions) (1999), India's Economic Reforms and Development (Essays in honour of Manmohan Singh), Oxford University Press, New Delhi.
- Bardhan P.K (9th Edition) (1999), The Political Economy of Development in India, Oxford University Press, New Delhi.

ECOH- 204: Quantitative Techniques and Statistical Method II

Max. Marks: 100   **Min. Marks: 40**
                                                                       Duration : 2 ½ Hrs

Learning Outcomes: On successful completion of the course the student will be able to-
1. Calculate the correlation and regression coefficients
2. Anticipate future trends and indexes
3. Speculate the trends using the laws of probability.
4. Build competency and academic excellence for competition exams and to develop employability related skills.

UNIT I

 Correlation: Simple, Coefficient of Correlation- Karl Pearson and Rank Correlation, Partial and Multiple Correlation analysis; Regression analysis: Estimation of regression line in a bivariate distribution

(individual series), Least squares method, Interpretation of Regression coefficients; Interpolation: Newton's and Binomial methods.

UNIT II

Time Series Analysis: Concept, Determination of regular, Trend and Seasonal indices; Index Numbers: Concept, Price relative, Quantity relative and Value relative, Laspeyer's, Paasche's, Fisher, Family budget method, Tests for Ideal index number, Problems in the construction and limitations of index numbers. Calculus- Integration.

UNIT III

Association of attributes; Chi-square test; Probability- Concept, Rules of Probability(Addition, Multiplication), Conditional Probability[1], Baye's Theorem[2]; Theoretical distribution: Properties and uses of Binomial, Poisson and Normal.

Reference Books:

- Allen R.G.D (1974), Mathematical Analysis for Economists, Macmillan Press & ELBS, London.
- Chiang, A.C (1986), Fundamental Methods of Mathematical Economics, Mc Graw Hill, New York.
- B.C Madnani & G.M Mehta (2007), Mathematics for Economists, S. Chand Publication.
- Gupta S.P (2001), Statistical Methods, S. Chand & Sons.
- K.N Nagar, S.N Mittal, M.L Oswal, S.S Modi (2012), Fundamentals of Statistics, I[st] Edition, Minakshi Prakashan, Meerut.
- Sharma J.K. (2013, Business Statistics, 2nd Edition, Pearson, New Delhi.
- Baumol V.J (1984), Economic Theory & Operations Analysis, Prentice Hall, Englewood Cliffs, New Jersey.
- Sydsaeter, Knut & Hammond, Peter. J. (2012), Mathematics for Economic Analysis, 7th Impression, Pearson Education, South Asia.
- Simon Carl P. & Blume Lawrence (2012), Mathematics for Economists, 5th Edition, Viva Norton Student Edition, New Delhi.

Course Structure of Economics Honours in Semester III

Compulsory

Paper Code	Paper Title	Max. Marks	Min. Marks	Duration
GEN-103	Environmental Studies	50	20	1 Hr.

Optional

Semester – III						
Papers Code	Theory Papers	CIA	ESE	Max. Marks	Min. Marks	Duration
ECOH - 301	Development Economics - I	30	70	100	40	2 ½ Hrs.
ECOH - 302	International Economics - I	30	70	100	40	2 ½ Hrs.
ECOH - 303	Public Finance – I	30	70	100	40	2 ½ Hrs.
ECOH - 304	Macroeconomics - I	30	70	100	40	2 ½ Hrs.
			Total	400	160	

GEN-103 : ENVIRONMENTAL STUDIES

Max. Marks: 50   **Min. Marks: 20**
Duration : 1 Hr.

Unit I – Natural Resources

Renewable and Non Renewable resources:
- Natural resources and associated problems
    a. Forest resources: Use and over exploitation, deforestations, case studies Timber extraction, mining, dams and their effects on forests and tribal people.
    b. Water resources: Use and over utilization of surface and groundwater, floods, drought, conflict over water, dams – benefits and problems
    c. Mineral resources: Use and exploitation, environmental effects of extracting and using mineral resources.
    d. Energy resources : Growing energy needs, renewable and non renewable energy sources, use of alternate energy sources.
    e. Land resources: Land as a resource, Land degradation, man induced landslides, soil erosion and desertification.
- Role of an individual in conservation of natural resources
- Equitable use of resources for sustainable lifestyles.

Unit II : Ecosystem

- Concept of Ecosystem
- Structure and function of an ecosystem
- Producers, consumers and decomposers,
- Energy flow in the eco system
- Ecological succession
- Food chains, food webs and ecological pyramids.
- Virus - COVID
- HIV / Aids – causes and precaution
- Climate change, global warming, Acid Rain, Ozone layer depletion
- Photochemical smog

Unit III – Biodiversity and its conservation

- Introduction – Definition: genetics, species and ecosystem diversity
- Value of biodiversity : consumptive use, productive use, social, ethical, aesthetic and option values
- Hot spots of biodiversity
- Threats to biodiversity: habitats loss, poaching of wildlife, man-wildlife conflicts
- Endangered and endemic species of India
- Conservation of biodiversity: In-situ and Ex-situ conservation of biodiversity

- **Environmental Pollution**
- Causes , effects and control measures of:
  a. Air pollution
  b. Water pollution
  c. Soil pollution
  d. Noise pollution

GEN-102: पर्यावरण विज्ञान

पूर्णांक : 50   न्यूनतम अंक: 20
                                                                                                 समय : 2 घंटे

इकाई I - प्राकृतिक संसाधन
नवीनकरण एवं अनवीनीकरण संसाधन : प्राकृतिक संसाधन एवं उससे संबंधित समस्याएँ

1. **वन संसाधन** : उपयोग एवं अतिशोषण , वनोन्मूलन केस अध्ययन , टिम्बर निष्कर्षण, खनन एवं उनके वनों एवं जन जातियों पर प्रभाव
2. **जलसंसाधन** : सतही एवं भूजल का उपयोग एवं अतिउपभोग , बाढ़ , सूखा, जल विवाद,बांधो की समस्याएं एवं लाभ
3. **खनिज संसाधन** : उपयोग एवं अतिशोषण , खनिज संसाधन के उपयोग एवं निष्कर्ष के पर्यावरणीय प्रभाव, केस अध्यन
4. **ऊर्जा संसाधन** : बढ़ती हुई ऊर्जा आवश्यकताएँ, नवीनीकरण एवं अनवीनीकरण ऊर्जा संसाधन , ऊर्जा संसाधनों का वेकल्पिक उपयोग केस अध्यन
5. **भूसंसाधन** : भूमि एक संसाधन , भूअपघटन , मानवजनित भूसखलन मृदा अपरदन एवं मरुस्थलीकरण , प्रकृतिक संसाधनों के संरक्षण में व्यक्तिक भूमिका सतत जीवनचर्या के लिए संसाधनों का उपयुक्त उपयोग

इकाई II – पारिस्थितिकी तंत्र

1. पारिस्थितिकी तंत्र की अवधारणा
2. पारिस्थितिकी तंत्र की संरचना एवं कार्यप्रणाली
3. उत्पादक , उपभोक्ता, अपघटक
4. पारिस्थितिकी तंत्र में ऊर्जा प्रवाह
5. पारिस्थितिकी अनुक्रमण
6. खाद्य श्रृंखला , खाद्यजाल, एवं पारिस्थितिकी स्तूप
7. विषाणु- COVID
8. एच आई वी / एड्स (कारण और पूर्वाधान)
9. जलवायु परिवर्तन , वैश्विक ताप वृद्धि , अम्लवर्षा, ओजोनपरत क्षरण
10. फोटोकेमीकल स्मॉग

इकाई प्रथम III – जैव विविधता एव संरक्षण

1. परिचय – परिभाषा, जीनीय, प्रजातीय एवं पारिस्थितिकी विविधता
2. जैवविविधता का महत्व , उपभोगीय उपयोगिता, उत्पादकीय उपयोगिता, सामाजिक नैतिक सौन्दर्य बोध एवं वैकल्पिक मूल्य
3. जैवविविधता के तप्तस्थल
4. जैवविविधता के खतरे : आवासक्षय, वन्यप्राणीयों का शिकार, मानव वन्यप्राणियों के बीच विरोधाभास
5. भारत की विलुप्तप्राय एवं स्थानिक प्रजातियाँ
6. जैव विविधता का संरक्षण : स्व स्थानीय एवं पूर्व स्थानी संरक्षण
7. परिभाषा, कारण, प्रभाव एवं नियंत्रण उपाय
   a. वायु प्रदूषण
   b. जल प्रदूषण
   c. मृदा प्रदूषण
   d. ध्वनी प्रदूषण

ECOH - 301: Development Economics – I

Max. Marks: 100   **Min. Marks: 40**
                                                      Duration:2 ½Hrs

Learning Outcomes: On successful completion of the course the student will be able to-
1. Illustrate the concept and difference between growth and development
2. Estimate development gap using various methods.
3. Summarize various growth models.
4. Build competency and academic excellence for competition exams and to develop employability related skills.

Unit I
Concept of economic growth and development; Factors affecting economic growth; Characteristics of developed and underdeveloped countries; Inequality and Growth: the inverted 'U' curve hypothesis; Economics of Education and Health: Meaning, Scope, as an instrument for economic growth to reap demographic dividends.

Unit II
Measuring development gap: GNP, PQLI, HDI, Gini coefficient and Lorenz curve; Human Resource Development and its measurement (education, health & income); Economic development and institutions: Market and market failure, State and state failure.

Unit - III
Growth models: Harrod and Domar; Neo- classical growth models: Solow, Meade, Mrs. Joan Robinson; Technological Progress: Embodied, Disembodied, Hicks and Harrod.

Reference Books:
- Todaro, Michael.P & Smith Stephen C (2014), Economic Development, 12th Edition, Pearson Education (Singapore) Pvt. Ltd., Delhi.
- Thirwal, A.P (2012), Growth and Development, Macmillan, London.
- Misra S.K, Puri V.K, (2012), Economics of Development and Planning, Himalaya Publishing House.
- Chennery, H. & T.N Srinivisan (Eds.) (1989), Handbook of Development Economics, Vols. 1 & 2, Elsevier, Amsterdam.
- United Nations (Annual), Human Development Report, United Nations, New York.
- World Bank (Annual), Infrastructure & Development, World Bank, Washington D.C.

ECOH - 302: International Economics – I

Max. Marks: 100   **Min. Marks: 40**
                                                                                         Duration:2 ½Hrs

Learning Outcomes: On successful completion of the course the student will be able to-
1. Explain the importance of international economics through various theories.
2. Analyze the importance of factor mobility in International Trade.
3. Evaluate terms of trade.
4. Build competency and academic excellence for competition exams and to develop employability related skills.

Unit – I
Theories of Absolute advantage, Comparative advantage and Opportunity cost. Heckscher-Ohlin theory of trade: main features, assumptions and limitations; Factor Reversal, Demand reversal and Leontief Paradox.

Unit – II
Factor Price Equalisation Theorem, Stopler-Samuelson Paradox, Rybcznski theorem, Offer Curve Analysis

Unit – III
Gains from Trade: Their measurement and distribution; Trade as an engine of growth; Concepts of Terms of Trade and their importance in the theory of trade; Doctrine of Reciprocal Demand: It's importance and limitations in the theory of trade; Immeserizing Growth

Reference Books:
- Kindleberger, C.P(1973), International Economics, R.D Irwin Homewood
- Salvatore, D. (2014), International Economics, Prentice Hall, Upper Saddle River, N.J, New York
- Soderston, Bo (1991), International Economics, The Macmillan Press Ltd., London
- Mannur, H.G (1999), International Economics, Vikas Publishing House Pvt. Ltd.
- Mithani, D.M. (1970), Introduction to International Economics, Vora.
- Krugman, P.R & M.Obstgeld (1994), International Economics Theory and Policy, Glenview, Foresman
- Bhagwati, J. (Ed.) (1981), International Trade, Selected Readings, Cambridge University Press, Mass
- Bhagwati, J.N., A. Panagariya and T.N Srinivasan (1998), Lectures on International Trade

ECOH - 303: Public Finance – I

Max. Marks: 100   **Min. Marks: 40**
                                                                                         Duration:2 ½Hrs

Learning Outcomes: On successful completion of the course the student will be able to-
1. Analyze the scope of public finance
2. Investigate the major trends in the tax revenue and review the effects of taxation on the economy.
3. Assessing the trend and effect of public expenditure and design policy measures for public spending, taxation and income redistribution.

Unit I
Meaning and scope of Public Finance; Role of Government in the Economy; Private vs. Public finance; Concept of Public goods, Private goods and Merit goods; The Principle of Maximum Social Advantage; Market Failure: Meaning, Causes and Role of government to control market failure.

Unit - II
Sources of Public revenue. Taxation: Meaning, classification and canons; Objectives of taxation in developed and developing economies; Characteristics of a good tax system; Taxable capacity. Division of tax burden: The Benefit and Ability- to- pay approaches; Impact, Incidence and Shifting of tax; Factors affecting incidence and shifting of taxes. Theories of tax shifting: Concentration, Diffusion and Modern theories; Incidence and shifting of taxes under Monopoly and Perfect competition; Effects of taxation, Laffer curve, Major trends in tax revenue of the Centre & state of Rajasthan, concept of G.S.T.

Unit - III

Public Expenditure: Meaning, classification and canons; Effects of Public expenditure; Wagner's law and the Peacock Wiseman's hypothesis; Crowding out; Trends in Public Expenditure of the Central government and Government of Rajasthan; Causes of growth of public expenditure in India.

Reference Books:

- Musgrave, R.A., The Theory of Public Finance, McGraw Hill, Kogakhusha, Tokyo
- Musgrave, R.A. & P.B Musgrave, Public Finance in Theory and Practice, Kogakhusha, Tokyo
- Mithani, D.M. (2006), Public Finance: Theory and Practice, Himalaya Publishing House
- Bhatia, H.L. (2009), Public Finance, 26th Edition, Vikas Publishing House Pvt. Ltd., New Delhi
- Tyagi, B.P. (2004), Public Finance, Jai Prakash Nath, Meerut
- Singh, S.K (2010), Public Finance in Theory and Practice, S.Chand & Co. Ltd., New Delhi
- Chelliah, Raja et.al, Trends and Issues in India's Federal Finance
- Reserve Bank of India (1977), Money Supply: Concepts, Compilation and Analysis, RBI Bulletin, January

ECOH - 304 Macroeconomics – I

Max. Marks: 100   **Min. Marks: 40**
                                                       Duration:2 ½Hrs

Learning Outcomes: On successful completion of the course the student will be able to-
1. Understand the concept of National Income
2. Analyze the various monetary theories.
3. Summarize the classical and Keynesian theory of output and employment.
4. Build competency and academic excellence for competition exams and to develop employability related skills.

Unit - I

Nature and scope of Macroeconomics; Fallacy of Composition; Macroeconomics Models; National Income: Concept and measurement; National Income identities with four sectors; Problems in measurement of National Income; National Income and Welfare.

Unit - II

Demand for Money: Traditional version of Quantity Theory of Money; Friedman's Quantity Theory of Money; Tobin's and Baumol's Analysis. Supply of Money: Money multiplier theory; Inflation: Causes, types, consequences and cures; Phillips curve hypothesis.

Unit - III

The Classical model of determination of level of output and employment; Keynes' criticism against classical theory; Keynesian theory of Output and Employment: General Equilibrium analysis.

Reference Books:

- Shapiro, E. (1996), Macroeconomic Analysis, 5th Edition, Galgotia Publications, New Delhi
- Mankiw (2007), Principles of Macroeconomics, 4th Edition, Thomson South-Western, a part of Cengage Learning, Cengage Learning India Pvt. Ltd.
- Dornbauch, R. & F.Stanley (1997), Macroeconomics, McGraw Hill Inc., New York
- Ahuja, H.L (2011), Macroeconomics- Theory and Policy, S. Chand & Co. Ltd., New Delhi
- K.C Rana & K.N Verma, (2014) Macroeconomics Analysis, Vishal Publishing house.
- Errol D'Souza (2008), Macroeconomics, Dorling Kindersley (India) Pvt. Ltd., Pearson Education in South Asia
- Branson, W.H., Macroeconomic Theory & Policy, Harper and Row, New York
- Blanchard Olivier & Fisher Stanley, Lectures on Macroeconomics, Cambridge, MIT Press

Course Structure of Economics Honours in Semester IV

	Semester – IV						
Paper Code	Theory Paper	CIA	ESE	Max. Marks	Min. Marks	Duration	
ECOH – 401	Development Economics - II	30	70	100	40	2 ½ Hrs.	
ECOH - 402	International Economics - II	30	70	100	40	2 ½ Hrs.	
ECOH - 403	Public Finance - II	30	70	100	40	2 ½ Hrs.	
ECOH - 404	Macroeconomics - II	30	70	100	40	2 ½ Hrs.	
			Total	400	160		

ECOH – 401 Development Economics – II

Max. Marks: 100   **Min. Marks: 40**
Duration:2 ½Hrs

Learning Outcomes: On successful completion of the course the student will be able to-
1. Explain the concept of dualism through various growth theories.
2. Articulate the concept of innovation and trade to develop growth theories.
3. Evaluate the efficiency of investment plans.
4. Build competency and academic excellence for competition exams and to develop employability related skills.

Unit - I

Partial theories of growth and development: Vicious circle of poverty, Balanced growth and Unbalanced growth (Rosenstein-Rodan and Hirschman), Rostow's stage theory, Circular causation, Unlimited supply of labour, Critical minimum effort thesis, Low equilibrium trap,

Unit – II

Classical model of growth; Schumpeter- Innovation, enterprise and process of 'creative destruction'; Karl Marx: theory of development; Rejection of trade as the 'engine of growth'. Dualism- Technical, Financial and Social.

Unit – III

Need for Investment criteria in LDC'S; Alternative investment criteria; Cost benefit analysis; Need for planning; Types of planning: Democratic, Decentralized, Indicative, Micro level, Physical and Financial.
Reference Books:
- Todaro, Michael.P & Smith Stephen C (2005), Economic Development, 8th Edition, Pearson Education (Singapore) Pvt. Ltd., Delhi.
- Thirwal, A.P (2012), Growth and Development, Macmillan, London.
- Misra S.K, Puri V.K, (2012), Economics of Development and Planning, Himalaya Publishing House.
- Chennery, H. & T.N Srinivisan (Eds.) (1989), Handbook of Development Economics, Vols. 1 & 2, Elsevier, Amsterdam.

ECOH - 402: International Economics – II

Max. Marks: 100   **Min. Marks: 40**
Duration:2 ½Hrs

Learning Outcomes: On successful completion of the course the student will be able to-
1. Illustrate the concept of Tariff and Quotas
2. Explain the concept of Balance of Payment.
3. Assess the idea of economic integration by studying different International Organization.

4. Build competency and academic excellence for competition exams and to develop employability related skills.

Unit - I
Types of Tarrifs and Quotas and their impact in Partial equilibrium analysis; Free trade and policy of tariffs in relation to economic growth with special Suggested to India; Concept of Optimum tariff and Effective Rate of Protection.

Unit - II
Concepts and components of Balance of Trade and Balance of Payments; Equilibrium and disequilibrium in Balance of Payments; Consequences of disequilibrium in Balance of Payments; Measures to correct deficit in Balance of Payments; Merits, demerits and limitations of Devaluation; J-curve.

Unit - III
Economic integration: Types and benefits; Concept and implications of Foreign Trade Multiplier; Functions of IMF, World Bank, GATT/WTO,UNIDO; History of reforms in International Monetary System.

Reference Books:
- Kindleberger, C.P(1973), International Economics, R.D Irwin Homewood
- Salvatore, D. (1997), International Economics, Prentice Hall, Upper Saddle River, N.J, New York
- Soderston, Bo (1991), International Economics, The Macmillan Press Ltd., London
- Mannur, H.G (1999), International Economics, Vikas Publishing House Pvt. Ltd.
- Mithani, D.M. (1970), Introduction to International Economics, Vora.
- Krugman, P.R & M.Obstgeld (1994), International Economics Theory and Policy, Glenview, Foresman
- Bhagwati, J. (Ed.) (1981), International Trade, Selected Readings, Cambridge University Press, Mass
- Bhagwati, J.N., A. Panagariya and T.N Srinivasan (1998), Lectures on International Trade

ECOH - 403 Public Finance – II

Max. Marks: 100

Min. Marks: 40
Duration:2 ½Hrs

Learning Outcomes: On successful completion of the course the student will be able to
1. Describe the various concepts of budget.
2. Illustrate the role of functional finance, key issues and challenges in Fiscal Policy.
3. Evaluate the fiscal federalism and federal finance in India.

Unit - I
Sources of public debt; Effects of public debt; Methods of debt redemption; Growth of India's Internal and External debt. Kinds of Budget; Economic and Functional classification of the budget, Concept of Zero Budgeting and Optimal Budget. Concepts of deficit: Budget deficit, Fiscal deficit, Revenue deficit, Primary deficit, Monetized deficit, Operational deficit. Deficit financing: meaning, effects.

Unit - II
Concepts, Rules and role of Functional finance. Fiscal Policy: Objectives, Instruments and limitations. Concept of Balanced Budget Multiplier.

Unit -III
Fiscal Federalism: Meaning and principles. Federal finance in India: Division of resources between center and states, Constitutional provisionsand problems of center-state financial relations in India. Latest recommendations of the Finance Commission. N.D.C formula for plan allocation.

Reference Books:
- Musgrave, R.A., The Theory of Public Finance, McGraw Hill, Kogakhusha, Tokyo
- Musgrave, R.A. & P.B Musgrave, Public Finance in Theory and Practice, Kogakhusha, Tokyo
- Mithani, D.M. (2006), Public Finance: Theory and Practice, Himalaya Publishing House
- Bhatia, H.L. (2009), Public Finance, 26th Edition, Vikas Publishing House Pvt. Ltd., New Delhi
- Tyagi, B.P. (2004), Public Finance, Jai Prakash Nath, Meerut
- Singh, S.K (2010), Public Finance in Theory and Practice, S.Chand & Co. Ltd., New Delhi
- Chelliah, Raja et.al, Trends and Issues in India's Federal Finance

- Reserve Bank of India (1977), Money Supply: Concepts, Compilation and Analysis, RBI Bulletin, January

ECOH – 404 Macroeconomics – II

Max. Marks: 100   **Min. Marks: 40**
                                                                         Duration:2 ½Hrs

Learning Outcomes: On successful completion of the course the student will be able to
1. Illustrate the theories of consumption and assess the concept of interaction of money and product market through IS LM curves.
2. Explain the concept of multiplier and accelerator.
3. Appraise the theory of trade cycle.
4. Build competency and academic excellence for competition exams and to develop employability related skills.

Unit - I
Theories of consumption: Absolute, Relative, Permanent and Life-cycle hypothesis; IS-LM curves: Derivation, Interaction of Money market and Product market; Relative effectiveness of Fiscal and Monetary policies.

Unit - II
Multiplier: Concept, operation, leakages and weaknesses; Multiplier analysis in 4 sector economy; Accelerator: Concept, operation and weaknesses; The Multiplier-Accelerator interaction.

Unit - III
Trade cycles: Nature and characteristics; Keynes' view of trade cycle; Samuelson and Hicks' multiplier-accelerator model of trade cycles; Hawtrey's monetary theory Hayek's over Investment theory; Control of trade cycles.

Reference Books:

- Shapiro, E. (1996), Macroeconomic Analysis, 5th Edition, Galgotia Publications, New Delhi
- Mankiw (2007), Principles of Macroeconomics, 4th Edition, Thomson South-Western, a part of Cengage Learning, Cengage Learning India Pvt. Ltd.
- Dornbauch, R. & F.Stanley (1997), Macroeconomics, McGraw Hill Inc., New York
- Ahuja, H.L (2011), Macroeconomics- Theory and Policy, S. Chand & Co. Ltd., New Delhi
- Errol D'Souza (2008), Macroeconomics, Dorling Kindersley (India) Pvt. Ltd., Pearson Education in South Asia
- Branson, W.H., Macroeconomic Theory & Policy, Harper and Row, New York
    Blanchard Olivier & Fisher Stanley, Lectures on Macroeconomics, Cambridge, MIT Press

Course Structure of Economics Honours in Semester-V

	Semester –V						
Paper Code	**Theory Papers**	**CIA**	**ESE**	**Max. Marks**	**Min. Marks**	**Duration**	
ECOH - 501	Financial Markets And Institutions	30	70	100	40	2 ½ Hrs.	
ECOH - 502	Mathematical Economics - I	30	70	100	40	2 ½ Hrs.	
ECOH - 503	Introduction To Econometrics	30	70	100	40	2 ½ Hrs.	
ECOH - 504	Data Analysis Through- SPSS &Eviews Theory	20	50	70	28	2 ½ Hrs.	
ECOH – 505	Data Analysis Through- SPSS &Eviews Practical	10	20	30	12	2 ½ Hrs.	
			Total	**400**	**160**		

ECOH - 501: Financial Markets and Institutions

Max. Marks: 100   **Min. Marks: 40**
                                                            Duration: 2½Hrs

Learning Outcomes: On successful completion of the course the student will be able to-
1. Understand the concept of Indian Banking System.
2. Apply the concept of Money Market in recent Indian Development.
3. Analyze the role and significance of Capital Market.

Unit-I
Meaning, Functions and Types of Commercial Banks ; Recent NPA Scenario in Indian
Banking ; Banking sector reforms over last decade. Structure of Cooperative institutions and Development Banks (Industrial Development Banks, Agricultural Development Banks, Export-Import Banks, Housing Development Bank, RRBs).Central Banking System. Central Banking in India; Conduct of monetary policy in India; Role of RBI in Financial Stability and Financial Inclusion.

Unit-II
Money Market Introduction, Meaning and main characteristics of Money Market segments- Call Money Market, Treasury bill market, Commercial Papers Market, Certificate of Deposit Market, Gilt- edged Securities Market, Repo Market, Functions and Importance of money market in India; Recent Developments in Indian Money market.

Unit-III
Capital Market Meaning, Objectives, Importance and Functions of Capital Market; Financial instruments in primary capital Market; SEBI Powers and Functions, NBFIs- role and significance. Hedging with Financial derivatives- Futures, Options and Interest Swaps.

Reference Books:
- Bhasin, N. (2007), Banking and Financial System India 1947-2007, New Century
- Publications.
- 2.Gupta,S.K, Aggarwal,N. and Gupta,N. (2005), Financial Institutions and
- Markets, Kalyani Publishers.
- 3.Khan, M.Y.(2008) Indian Financial System. Tata McGraw Hill Company Ltd
- 4. Mishkin, F.S and Eakins,S.G.(2009) Financial Markets and Institutions, (5th
- Edition) Dorling Kindersley.
- Bhole, L.M. and Mahakud, J.(2009), Financial Institutions and MarketsStructure, Growth and Innovations, Tata Mcgraw Hill.

- Madura, J.(2006) Financial Institutions and Markets (7th Edition), CENGAGE
- Learning.
- 7.Machiraju, M.R. (1999), Indian Financial Systems, Vikas Publishing House, New
- Delhi.
- Ohlson, J.A. (1987), The Theory of Financial Markets and Institutions, North
- Holland, Amsterdam.
- Gupta, L.C. (Ed.) (1999), India's Financial Markets and Institutions, Society for
- Capital Research and Development, Delhi.
- Official websites of IMF, RBI,SEBI

ECOH - 502: Mathematical Economics - I

Max. Marks: 100   **Min. Marks: 40**
                                                        Duration: 2½Hrs

Learning Outcomes: On successful completion of the course the student will be able to-
1. Operate optimization technique in order to achieve the objectives.
2. Construct mathematically the consumer behavior.
3. Construct mathematically the production function.
4. Build competency and academic excellence for competition exams and to develop employability related skills.

Unit - I

Maxima and Minima (critical points); convexity and concavity; Optimisation: constraint optimisation- global optima and local optima (Total Derivative Method and Lagrange Multiplier); introduction of Difference and Differential Equations.

Unit - II

Consumer Theory: Utility function; Budget line; Consumer's equilibrium; Income effect, Substitution effect and Price effect; Slutsky equation; Derivation of demand curve; Elasticity of demand; Consumer surplus.

Unit - III

Theory of production: Properties of production function- Homogeneous, non-homogeneous, Cobb-Douglas, CES, Returns to scale; Technology progress and production function; Choice of optimal combination of factors of production; Cost and Revenue functions; Derivation of Cost curves; Relation between total, average and marginal cost and revenue; Producer surplus; Production Possibility Curve; Adding up theorem.

Reference Books:
- Allen, R.G.D. (1974), Mathematical Analysis for Economists, Macmillan Press &ELBS, London
- Chiang, A.C. (1986), Fundamental Methods of Mathematical Economics, McGraw Hill, New York
- 3.B.C Madnani& G.M Mehta (2007), Mathematics for Economists, S. Chand Publications
- 4.Baumol, W.J.(1984), Economic Theory and Operations Analysis, Prentice Hall, Englewoood Cliffs, New Jersey
- 5.Sydsaeter, Knut & Hammond, Peter. J. (2012), Mathematics for Economic Analysis, 7th Impression, Pearson Education, South Asia

ECOH - 503: Introduction to Econometrics

Max. Marks: 100   **Min. Marks: 40**
                                                        Duration: 2½Hrs

Learning Outcomes: On successful completion of the course the student will be able to-
1. Understand the basic concepts o econometrics.
2. Construct the Linear Regression Model using OLS method.
3. Validate the Linear Regression Model.

4. Build competency and academic excellence for competition exams and to develop employability related skills.

UNIT-I

Definition, Scope, Goals and Divisions of Econometric. Methodology of Econometric Research. Correlation theory. R2 and Adjusted R2.

UNIT-II

Linear Regression Model in two variables, method of ordinary least squares (OLS), properties of BEST estimator.

UNIT-III

Econometric Problems: Nature, consequences, detection and remedial measures of the problems of multicollinearity, hetroscedasticity and autocorrelation.

Reference Books:
- A Koutsoyiannis, Theory of Econometrics, Ane Books.
- D Guajarati: Basic Econometrics, McGraw Hill.

ECOH - 504: Data Analysis through- SPSS & EViews

Max. Marks: 100   **Min. Marks: 40**
                                                                       Duration: 2½Hrs

Learning Outcomes: On successful completion of the course the student will be able to-
1. Tabulate data using SPSS.
2. Analyze cross-sectional data using SPSS.
3. Analyze time-series data using E-Views.
4. Build competency & academic excellence for the competitive exams & to develop research skills.

Unit – I

Introduction to SPSS: Data Entry, Data Editor, Basic calculations, Frequencies, Missing values, Split files, Import Export Files Using EXCEL Data. Visual Statistics: Chart Builder, Histograms, Box plots, Bar Charts, Line Charts, Pie Charts, Editing graphs and Axes.

Unit –II

Data Analysis Using SPSS: Mean, t-test, One way ANOVA, Non Parametric Tests, Normality test. Linear Correlation and Regression.

Unit- III

Basic introduction of E-views- overview of the E-Views, creating work files, saving your work, command description, frequency conversion, basic graphs, linear regression model and correlation model.

Reference Books:
- Field A. Discovering statistics using SPSS, Sage Publication.
- SPSS for Dummies, Wiley Publishing
- SPSS Survival Manual: A step by step guide to data analysis using SPSS, Open University Press
- Using E-Views for Principles of Econometrics, William E. Griffiths, R.Carter Hill, Guay C. Lim, Wiley Publishing.
- Intrilligator, M.D. (1978), Econometric Models, Techniques & Applications, Prentice Hall, Englewood Cliffs, N.

Course Structure of Economics Honours in Semester-VI

Semester – VI						
Paper Code	Theory Papers	CIA	ESE	Max. Marks	Min. Marks	Duration
ECOH - 601	Applied Statistics	30	70	100	40	2 ½ Hrs.
ECOH – 602	Mathematical Economics – II	30	70	100	40	2 ½ Hrs.
ECOH - 603	(a) Demography **OR** (b) Economics Of Gender And Development	30	70	100	40	2 ½ Hrs.
ECOH - 604	Field Survey/Project Work	30	70	100	40	2 ½ Hrs.
			Total	**400**	**160**	

ECOH – 601: Applied Statistics

Max. Marks: 100

Min. Marks: 40
Duration: 2½Hrs

Learning Outcomes: On successful completion of the course the student will be able to-
1. Speculate the trends using laws of probability.
2. Design the sample survey.
3. Formulate & validate the hypothesis.

Unit – I

Basic concepts and definitions of probability; Laws of addition and multiplication; Conditional probability; Bayes theorem (statement); Binomial, Poisson and Normal distribution.

Unit – II

Sampling and Sampling Distribution: Types of Sample survey, Population Parameters and Sample Statistics, Principles of sampling, Sampling Methods, Sampling Distributions, Sampling distribution of sample mean (normal distribution and non-normal distribution)

Estimation and Confidence Intervals: Point Estimation, confidence interval estimation, interval estimation of population mean (mean known and mean unknown), Estimating Population size.

Unit – III

Hypothesis Testing: Rational for Hypothesis testing, General procedure of hypothesis testing, hypothesis testing for population parameters with large samples (single and two population means), Hypothesis testing for small samples.

Parametric and Non-parametric test: paired and unpaired t test, Z test, f test, ANOVA, chi-square test.

Reference Books:
- Gupta S.P (2001), Statistical Methods, S. Chand & Sons.
- K.N Nagar, S.N Mittal, M.L Oswal, S.S Modi (2012), Fundamentals of Statistics, Ist Edition, MinakshiPrakashan, Meerut.
- Sharma J.K. (2013), Business Statistics, 2nd Edition, Pearson, New Delhi.
- Gupta S.C. and V.K.Kapoor: Fundamentals of Applied Statistics
- Chou, Y.: Statistical Analysis
- Elhance, D.N: Elements of Statistics
- Speigl, m.R.: Theory and problems of Statistics.
- B.L.Agarwal, (2006), Basic Statistics, New Age Publication.
- John E. Freund, Frank J. Williams, (2010), Outline of basic statistics, Courier Corporation.

ECOH - 602: Mathematical Economics – II

Max. Marks: 100   **Min. Marks: 40**
Duration: 2½Hrs

Learning Outcomes: On successful completion of the course the student will be able to-
1. Understand the concept of Game Theory.
2. Mathematically validate equilibrium under different market structures.
3. Designing the optimization behavior using input output analysis and LPP.
4. Build competency and academic excellence for competition exams and to develop employability related skills.

Unit - I
Game theory: Introduction and Concept; Simple and Mixed strategy; Saddle point solution; Prisoner's dilemma; Pay off matrix of a game - Two-person-two-commodity and zero-sum game.

Unit - II
Market Structure/Pricing: Concept of equilibrium; Equilibrium of the firm under Perfect competition, Monopoly, Price discrimination, Monopolistic competition; Subsidies and Taxes; Economies of scale; Market equilibrium; Economic interpretation of time lag in function; Cobweb model.

Unit - III
Input-Output analysis: The simple closed and open model; Linkages- concepts and measurement; Dynamic Input-Output model; Linear programming- Graphic and Simplex method.

Reference Books:
- Allen, R.G.D. (1974), Mathematical Analysis for Economists, Macmillan Press &ELBS, London
- Chiang, A.C. (1986), Fundamental Methods of Mathematical Economics, McGraw Hill, New York
- B.C Madnani& G.M Mehta (2007), Mathematics for Economists, S. Chand Publications
- Baumol, W.J.(1984), Economic Theory and Operations Analysis, Prentice Hall, Englewoood Cliffs, New Jersey
- Sydsaeter, Knut & Hammond, Peter. J. (2012), Mathematics for Economic Analysis, 7th Impression, Pearson Education, South Asia

ECOH – 603(A): Demography

Max. Marks: 100   **Min. Marks: 40**
Duration: 2½Hrs

Learning Outcomes: On successful completion of the course the student will be able to-
1. Appraise the importance of population and its related theories in economic development.
2. Illustrate the quantitative and the qualitative aspects and characteristics of the population through various demographic
3. Express views on the concept of Fertility and mortality.

Unit - I
Population and Development: Meaning and scope of demography, components of population growth and their interdependence; Sources of population data; Theories of population –Malthus, Optimum theory of population; Theories of demographic transition; Population and Development. Socio-Economic Impact of COVID -19 on Population and Development

Unit - II
Structure of Population: Population trends since the twentieth century; International aspects of population growth and distribution; Age and Sex structure in more developed and less developed countries; determinants of age and sex structure; Population pyramids- individual aging and population aging; Population projection. Impact of COVID - 19 on the Demographic Dividend of Developed and Developing Countries

Unit - III
Fertility: Importance of the study of fertility-Total fertility rate, Gross reproduction rate and Net reproduction rate. Levels and trends in developed and developing countries; Factors affecting fertility.

Mortality: Levels and trends in mortality in developed and developing countries; Mortality differences by age & sex, residence, occupation etc. ; Foetal and Infant mortality; Factors leading to decline in mortality in recent past; Life Tables:- construction and uses.

Reference Books :

- Agarwal S.N. (1972), India,s Population Problem, Tata McGraw- Hill Co., Bombay.
- Bose, A. (1996), India's Basic Demographic Statistics, B.R. Publishing Corporation, New Delhi.
- Chenery H. and T.N. Srinivasan (Eds.)(1989), Hand Book of Development Economics, Vol. 1 & 2 Elsevier, Amsterdam.
- Choubey, P.K. (2000), Population Policy in India, Kanishka Publications, New Delhi.
- Jhingan M.L, Bhat B.Kand Desai J.N (Latest Edition),Demography, Vrinda Publication.
- Agnihotri, S. B. (2000), Sex ration in Indian Population: A fresh Exploration, Sage New Delhi.
- Amsden, A. H. (Ed.) (1992), Form of Production and Women's Labour, Gender
- Aspects of Industrialization in India and Mexico, Sage, New Delhi.
- Boserup,E. (1970), Women's role in Economics Development, George Allen andUnwin, London.
- Chiang, C.L. (1974), Life Tables and Mortailty Analysis, W.H.O., Geneva.
- Gupta, Jj.A. (2000), New Reproductive Technogies, Women's Health and Autonomy,
- Indo Dutch Studies on Development Alternatives, Sage, New Delhi.
- Jhabwala,R. and R.K. Subramanya (2000) (Eds.), The Unorganized Sector: Work Security and Social Protection, sage, New Delhi.
- Krshnaji M., R.M. Sudarshan and A. Shariff (1999), Gender Population and development, Oxford University Press, New Delhi.
- King M. and M.A. Hill (Eds.)(1993), Women's Education in Developing Countries
- Barriers, Benefits and Politics, John Hopkins, Baltimore

ECOH – 603(B): Economics of Gender and Development

Max. Marks: 100   **Min. Marks: 40**
                                                      Duration: 2½Hrs

Learning Outcomes: On successful completion of the course the student will be able to-

1. Appraise the female demographic indices.
2. Analyze the gender equality aspect.
3. Express views on economic growth & its relation with gender equality.

Unit-I

Demography of female population: Age structure, mortality rates, and sex ratio – Causes of declining sex ratios and fertility rates in LDCs and particularly India ; Women and their access to nutrition, health, education and social and community resources, and its impact on female mortality and fertility, economic status, and work participation rate.

Unit-II

Gender inequality in labour market-Concept and analysis of women's work: valuation of productive and unproductive work; visible and invisible work; paid and unpaid-work; economically productive and socially productive work .Inequality in the labour market: entry into and exit from labour market Wage differentials.

Unit III

Economic Growth and Gender Equality- impact of economic growth on gender (in)-equality. Impact of globalization on gender status. Gender Budgeting,   Concept of 'feminisation of poverty.

Reference Books:

- Boserup E. (1970), Women's Role in Economic Development, George Allen and Unwin, London.
- Desai, N. and M.K. Raj (Eds.) (1979), Women and Society in India, Research Center for Women Studies, SNDT Unviersity, Bombay
- Government of India (1974), Towards Equality – Report of the Committee on the Status of Women in India, Department of Social Welfare, Ministry of Education and Social Welfare, New Delhi.

- 4.Krishnaraj, M., R.M. Sudarshan and A. Shariff (1999), Gender, Population and Development, Oxford University Press, New Delhi.
- Seth, M. (2000), Women and Development: The Indian Experience, Sage Publications, New Delhi.
- Srinivasan K. and A. Shariff (1998), India: Towards Population and Development Goals, Oxford University Press, New Delhi.
- 7.Venkateswaran S. (1995), Environment, Development and the Gender Gap, Sage Publications, New Delhi.
- Wazir, R. (2000), The Gender Gap in Basic Education: NGOs as Change Agents, Sage Publications, New Delhi.

ECOH - 604: Field Survey/Project Work

Max. Marks: 100   **Min. Marks: 40**
                                                                         Duration: 2½Hrs

Learning Outcomes: On successful completion of the course the student will be able to-
1. Design project and formulate policies.
2. Write reports
3. Conduct primary / secondary surveys.

This paper will consists of Project work/ Field survey and Viva-Voce. Dissertation submitted by the students would be evaluated by External Examiners appointed by the institute for marks of 70. Remaining 30 marks would be given by the internal examiner as per the rules and regulations.