POST GRADUATE PROGRAMME

MASTER OF PLANNING

(TWO YEAR PROGRAMME)

W.E.F. SESSION: 2014-15

Department of Architecture

Faculty of Architecture, Urban & Town Planning

MAHARISHI DAYANAND UNIVERSITY

ROHTAK – 124001

SCHEME OF EXAMINATION FOR MASTER OF PLANNING

Full Time (Two Year)

SEMESTER-I w.e.f. 2014-15

S. No	Subject Code	Course Title	Contact Hours /	Marks				Duration of Exam
			week	Sessi onal	Port folio	Theory Exam	Total	(Hours)
1	MURP-101	Planning Studio-1	10	200	200	-	400	-
2	MURP-102	Socio-Economic Basis for Planning	4	100	-	100	200	3
3	MURP-103	Planning Theory and techniques	4	100	-	100	200	3
4	MURP-104	Demography and Economics	4	100	-	100	200	3
5	MURP-111 MURP-112 MURP-113	Elective (One out of three)	4	100	-	100	200	3
	SUB	TOTAL	26	600	200	400	1200	

MURP: 111

Social Formation and Change MURP: 112 History of Human Settlements MURP: 113 Project Formulation and Appraisal

NOTE:

Sessional works shall be evaluated by the teachers of the various subjects based on the work done during semester on the basis of the following weightage:

S. No.	Components of Minors	Weightage
A)	Theory Courses	
1	Sessional Test – I	20%
2	Sessional Test – II	20%
3	Assignment / Mini Project / Term paper	30%
4	Quiz/Tutorial/Class Test	30%
B)	Planning Studio Courses	
1	Seminar	20%
2	Programme formulation	20%
3	Concept	20%
4	Preliminary Design	40%

SCHEME OF EXAMINATION FOR MASTER OF PLANNING

Full Time (Two Year)

SEMESTER II

S. No	Subject Code	Course Title	Contact Hours /	Marks			Duration of Exam	
			week	Sessi onal	Port folio	Theory Exam	Total	(Hours)
1	MURP-201	Planning Studio- 2	10	200	200	-	400	-
2	MURP-202	Ecology and Resource Development	4	100	-	100	200	3
3	MURP-203	Transportation Planning	4	100	-	100	200	3
4	MURP-204	Regional Planning And Development	4	100	-	100	200	3
5	MURP-211 MURP-212 MURP-213	Elective (One out of three)	4	100	-	100	200	3
6	MURP-205	Practical training	-	50	50	-	100	-
	SUB	TOTAL	26	650	250	400	1300	-

MURP: 211

Statistics and Population Studies

MURP: 212

Land Economics

MURP: 213

Development Management and Finance

NOTE:

Sessional works shall be evaluated by the teachers of the various subjects based on the work done during semester on the basis of the following weightage:

S. No.	Components of Minors	Weightage
A)	Theory Courses	
1	Sessional Test – I	20%
2	Sessional Test – II	20%
3	Assignment / Mini Project / Term paper	30%
4	Quiz/Tutorial/Class Test	30%
B)	Planning Studio Courses	
1	Seminar	20%
2	Programme formulation	20%
3	Concept	20%
4	Preliminary Design	40%
C)	Practical Training	60%
	SCHEME OF EXAMINATION	•

SCHEME OF EXAMINATION

FOR MASTER OF PLANNING

Full Time (Two Year) SEMESTER III

S. No	Subject Code	Course Title	Contact Hours /		Marks			Duration of Exam
110			week	Sessi	Port	Theory	Total	of Exam (Hours)
				onal	folio	Exam		
1	MURP-301	Planning Studio-	10	200	200	-	400	-
		3						
2	MURP-302	Rural and	4	100	-	100	200	3
		Urban Housing						
3	MURP-303	Village Planning	4	100	-	100	200	3
		and Rural						
		Development						
4	MURP-304	Dissertation	4	100	100		200	-
5	MURP-311	Elective	4	100	-	100	200	3
	MURP-312	(One out of						
	MURP-313	three)						
	SUB	TOTAL	26	600	300	300	1200	

MURP: 311

Environmental Planning & Design

MURP: 312

Urban & Rural Infrastructure Planning

MURP: 313

Planning Legislation & Professional Practice

Note:

Sessional works shall be evaluated by the teachers of the various subjects based on the work done during semester on the basis of the following weightage:

S. No.	Components of Minors	Weightage
A)	Theory Courses	
1	Sessional Test – I	20%
2	Sessional Test – II	20%
	Assignment / Mini Project / Term	
3	paper	30%
4	Quiz/Tutorial/Class Test	30%
B)	Planning Studio Courses	
1	Seminar	20%
2	Programme formulation	20%
3	Concept	20%
4	Preliminary Design	40%
C)	Dissertation	
1	Synopsis	10%
2	Mid term submission	50%
3	Prefinal submission	40%

SCHEME OF EXAMINATION

MASTER OF PLANNING

Full Time (Two Year)

SEMESTER IV

S. No	Subject Code	Course Title	Contact Hours /	Marks			Duration of Exam	
			week	Sessi onal	Port folio	Theory Exam	Total	(Hours)
1	MURP-401	Thesis	#	300	300	-	600	-
	SUB	TOTAL	#	300	300	-	600	-

$\# \ensuremath{\,@}$ Three hour per student per week for guide and $\ensuremath{@}$ Three period per week for thesis coordinator

Note:

Sessional works shall be evaluated by the teachers of the various subjects based on the work done during semester on the basis of the following weightage:

S. No.	Components of Minors	Weightage
A)	Thesis	
1	Synopsis	10%
2	Programme formulation	30%
3	Concept	20%
4	Preliminary Design	40%

Contact Hours / week : 10 Sessional marks : 200 Portfolio Marks : 200 Total Marks : 400

CONTENT:

The planning studio is focused on the study of master plan of city/town and appraisal of the land use followed by a design and layout of housing.

EXERCISE I:

Study of any one land use in any existing Master plan of an Indian town/city as per the guidelines given below:

Minimum Requirements:

- (i) Study of a Master plan/development plan of selected town (clearly indicating existing and proposed land uses).
- (ii) Study of an existing land use map of selected town highlighting the land use which has been selected for study e.g. open spaces or commercial land use, residential, industrial etc. indicating all its categories and extend and nature of the use / activity.
- (iii) Study of the future proposals as given in the Master Plan regarding the selected land use.
- (iv) Analysis of standards adopted in the proposed Master Plan regarding the selected land use, with suggestions of improvements, if any.
- (v) Development stages of design of alternative proposals for developing the land use within the overall framework of Master Plan.

The proposal may include:

- (i) An existing land uses map indicating all its subcategories and extent and nature of use/ activity.
- (ii) A map showing the future proposal as given in the development plan along with all facts and figures.
- (iii) Analysis of standards adopted in the Development Plan regarding the various land uses, with suggestion of improvements and various techniques etc.
- (iv) A comprehensive report of not more than 75 double spaced typed pages of A -4 size containing introduction, reasons for selection of the Town and the planning alternatives with analysis, calculations, observations and recommendation etc.

EXERCISE II:

Design and lay out for a Housing project, Industrial project, Institutional areas etc. on an existing site of area as per the respective norms of the town and country planning norms. Site planning is a process whereby the optimum utilization of potential of site is considered recognizing the constraints the site has. It uses three dimensional spaces of the site and the associated locational advantages, human activities and the regulations that are assigned to a particular site. The site is developed using a set of standards / norms in a given context which varies from location to location. A student is expected to understand the intricacies and interface between various variables such as soil conditions, topography, environmental dimensions, location, spatial standards applicable to the site, etc.

The items to be submitted may include.

- (i) Site analysis clearly indicating all physical features, potentials and problems as well as land suitable for buildings;
- (ii) Design of dwelling units-All plans and atleast, two elevations and one section on 1:100 scale.
- (iii) Layout of buildings and roads.
- (iv) Layout showing trunk sewer, main waterlines and refuse collection points.
- (v) Layout showing landscaping proposal along with buildings and roads all on 1:1000 scale.
- (vi) Report not more than 25 double spaced typed pages of A4 size containing introduction site analysis, area calculations and other procedures followed in design process.

Instruction to Paper Setter:

- 1. Exam. shall be of 3 hours duration and of Maximum Marks: 100. (Minimum Passing Marks:40)
- 2. Total EIGHT questions are to be set (**two questions from each unit**), and candidate have to **attempt any five questions selecting one from each unit**, each question of 20 marks each.
- 3. Each question may be further be sub divided into 2-3 parts .
- 4. Emphasis should be given to cover the entire syllabus/contents with equal weightage to every part of the syllabus.

CONTENT:

<u>Unit-1</u>

Man and Environment. Traditional patterns and trends of change in Indian society, concept of social structure, cloture and social institutions.

<u>Unit-2</u>

Relation between social structure and spatial structure. Social aspects of housing. Social problems of slums.

Unit-3

Economic resource, Typology of goods, production economics, process, laws, product and costs. Economies of scale external economics, of scale, external economics, valuation, typology of markets, land and real estate market, macro-economic concepts.

Basic economic analysis, economic principles and land use, economic rent, land use pattern and land values.

Unit-4

Development of land and real property, financial balance sheet of land development. Land and real properly markets: private ownership and social contract over land.

- 1. Bhatt Caste, 1975, 'Class and Politics', Manohar Book service, Delhi.
- 2. H.Carter, 1972, 'The Study of Urban Geography', Edward A Old, London.
- 3. F.S.Chapin, 1965, 'Urban Landuse Planning', Higg & brothers, New York.
- 4. K.V.Sundaram (Ed), 1985 'Geography & Planning', Concept Publishing Co., New Delhi.
- 5. R.A.Wilson and D.A. Schulz, 1978, 'Urban Sociology', Prentice Hall Inc., New Jersey.

Instruction to Paper Setter:

- 1. Exam shall be of 3 hours duration and of Maximum Marks: 100. (Minimum Passing Marks:40)
- 2. Total EIGHT questions are to be set (two questions from each unit), and candidate have to attempt any five questions selecting one from each unit, each question of 20 marks each.
- 3. Each question may be further be sub divided into 2-3 parts.
- 4. Emphasis should be given to cover the entire syllabus/contents with equal weightage to every part of the syllabus.

CONTENT: Section I: Planning Theory

Unit-1

Settlement system, classification of settlements, primate city, rank-size rule, central place concept, concepts of complementary area, central goods and services, range, threshold etc; city-region relationship; structure of city regions, area of influence, dominance; rural-urban fringes; push and pull factors; migration trends and impacts on urban and rural development.

Characteristics of the urban environment and its components; Land uses, physical structure and relationship between parts of a city. Classification of land use in urban area; structure and models of growth patterns of CBD, intra - urban inequalities.

Unit-2

Compact city approach: concept, advantages and limitations; Forms of cities in developing world, Forms of cities in the developed world; Forms of cities in the former and present socialist countries. Theories of implementation of planning policies and development plans.

Section II: Planning techniques

Unit-3

Surveys, analyses and methods and practices in comprehensive planning. Techniques of conducting surveys for land use, building use, density, structural condition of buildings, heights of building, land utilization and physical features of land; Data requirement for various types of plans; Plan preparation Techniques.

Unit-4

Formulation of spatial standards for residential, industrial, commercial and recreational areas, space standards for facility areas, utilities and networks; Population, Distance criteria; Performance standards.

- 1. Lichfield N., et.al. (eds), 1998, Evaluation in Planning: Facing the challenge of complexity, Kluwer Academic publications, Dordrecht.
- 2. Knox P, and P. Taylor (eds), 1995, World Cities in a World System, Cambridge University Press, Cambridge.
- 3. Kaiser Edward J., et.al., 1995, Urban Landuse Planning 4th (ed) Urbana, University of Illinois Press

Instruction to Paper Setter:

- 1. Exam shall be of 3 hours duration and of Maximum Marks: 100. (Minimum Passing Marks:40)
- 2. Total EIGHT questions are to be set (two questions from each unit), and candidate have to attempt any five questions selecting one from each unit, each question of 20 marks each.
- 3. Each question may be further be sub divided into 2-3 parts .
- 4. Emphasis should be given to cover the entire syllabus/contents with equal weightage to every part of the syllabus.

CONTENT: Section I: Demography

Unit-1

Demographic variables: fertility, mortality, migration; evolution of population study, contribution of Malthus; Mortality-trends, biological and social factors and mortality-gender, race, social structure, life style, social status, occupation etc; measures of mortality-crude and age-specific death rates; infant mortality, adjusted or standardized death rates; neonatal mortality rate.

Fertility-fertility trends, ethnic groups, socio-economical group mobility, location etc.; measures of fertility, crude birth rate; Age-specific fertility rate; total fertility rate, net reproduction rate.

Migration-causes and consequences of population movement; reasons and types of migration trends; methods of measuring volumes of migration; direct and indirect measures; effect of migration of composition of population.

Unit-2

Source of demographic data; census of India and its role as a data warehouse, population structure and composition, age sex composition, sex ratio, dependency ratio, child woman ratio.

Measures of age-sex structure, age-sex pyramid, population composition; marital status, cast region, literacy level, etc; life table techniques; techniques in preparing life table, abridged life table; population estimation, projection and population forecasting; basic cohorts survival model, inter regional cohorts survival model.

Section II: Economics

Unit-3

Definition and Scope of Economics; Central problems of economics; micro and macroeconomic decisions; use of economics in planning.

Theory of Demand and Supply; Law of demand and supply, elasticities of demand and supply, its use in planning.

Perfect and imperfect market types, market demand and supply; pricing under different market conditions, theory of production; factors of production, costs, scale of production, and economies of scale. Market failures and need of government interventions and regulations.

Unit-4

Growth and development indicators; measures of national income, defining development and under development.

Introduction to Urban and Regional Economics- Use of economic concepts in urban planning, housing, transport, taxes, land use, location, etc.; use of economic concepts in regional planning; location disparities in development, input-output techniques, sectoral development, etc.

- 1. Demography: Measuring and modeling population processes SH Preston, P Heuveline, M Guillot Pop. Dev. Rev, 2001 Wiley Online Library
- 2. The New Global Frontier: Urbanization, Poverty and Environment in the 21st Century By George Martin publisher Earthscan

Instruction to Paper Setter:

- 1. Exam. shall be of 3 hours duration and of Maximum Marks: 100. (Minimum Passing Marks:40)
- 2. Total EIGHT questions are to be set (two questions from each unit), and candidate have to attempt any five questions selecting one from each unit, each question of 20 marks each.
- 3. Each question may be further be sub divided into 2-3 parts .
- 4. Emphasis should be given to cover the entire syllabus/contents with equal weightage to every part of the syllabus.

CONTENT:

<u>Unit-1</u>

Persistence and change in the nature of social grouping in India-caste, community and family.

Unit-2

Human ecology: Ecological approach in study of Indian cities-limitations of conventional approaches, role of socio cultural aspects in the growth patterns of a city.

Urbanization: Perspectives on nature and trends between a mass culture.

<u>Unit-3</u>

Tradition and modernization technology and change, aspects of social tension. Illustrative cases of social perspective in Planning. Planning for recreation and provision for religious activities. Changing role of public participation and voluntary organizations.

<u>Unit-4</u>

Social dimensions of urban and rural poor.

- 1. Cohen, JIM. & Uphoff. N.J. (1980) Participation's Place in Rural Development Seeking Clarity Through Specificity in World Development 8 (3).
- 2. Gangrade, K.D. & Soorayamoorthy, (1995) "NGOs : Retrospect and Prospect In NGOs In Development Perspective, Vivek Prakashan, Delhi (ed) ft B. Jam.
- 3. Government of India, Sixth Five Year Plan(1980-85) Planning Commission of India.
- 4. New Delhi. Government of India, Seventh Five Year Plan (1985-90) Planning Commission of India, New Delhi.
- 5. Jagannathan, V. (1979) People's Participation in Development Process In Development, and
- 6. Participation (ed). RK. flora, The HC. Mathur State Institute of Public Adminstration Jaipur.
- 7. Jam, RB. (1995) ed. NGOs in Development Perspective, Vivek Pmkashan, Delhi.

Instruction to Paper Setter:

- 1. Exam. shall be of 3 hours duration and of Maximum Marks: 100. (Minimum Passing Marks:40)
- 2. Total EIGHT questions are to be set (**two questions from each unit**), and candidate have to **attempt any five questions selecting one from each unit**, each question of 20 marks each.
- 3. Each question may be further be sub divided into 2-3 parts .
- 4. Emphasis should be given to cover the entire syllabus/contents with equal weightage to every part of the syllabus.

CONTENT:

<u>Unit-1</u>

Human Settlements: An Overview, Elements of Human Settlements Determinants of Human Settlements: Natural and Manmade, Classification of Human Settlements Ekistics, An introduction to the study of Human Settlement Evolution of Man: An Overview, Man as a non-sedentary wanderer Emergence of the notion of a settlement

<u>Unit-2</u>

THE ANCIENT & MEDIEVAL PERIOD Settlements of Indus Valley Civilisation, Egyptian & Sumerian Civilisation, Greek Civilisation Roman Civilisation, Pre-Mughal India

Unit-3

THE RENAISSANCE & POST- INDUSTRIAL PERIOD Settlements of Renaissance, The Mughal India City, The Colonial City Settlements in Post-Industrial Europe: Models & Theory, Industrial Townships Haussmannisation, City Beautiful Movement, Building of a Colonial Capital City: New Delhi

<u>Unit-4</u>

THE MODERN ERA

Settlements in Pre-WW Europe & America: Models & Theory – I, Howard"s Garden City Movement Garnier's Industrial City, Mata's Linear City, Geddes' Conservative Surgery, Settlements in Post-WW Europe & America: Models & Theory – II, Corbusier's City Planning Theories: La Ville Contemporaine / Plan Voisin / La Ville Radieuse, Mumford's City Planning Theories, Building of Chandigarh, The Post Modern Global City

- 1. Arthur B. Gallion, Urban Pattern: City Planning & Design, (New York, 1980)
- 2. Constantinos A. Doxiadis, Ekistics: An Introduction to the Science of Human Settlement, (London, 1968)
- 3. Louis Mumford, The City in History, (London, 1961)
- 4. Patrick Geddes, Cities in Evolution, (London, 1949)

Instruction to Paper Setter:

- 1. Exam. shall be of 3 hours duration and of Maximum Marks: 100. (Minimum Passing Marks:40)
- 2. Total EIGHT questions are to be set (two questions from each unit), and candidate have to attempt any five questions selecting one from each unit, each question of 20 marks each.
- 3. Each question may be further be sub divided into 2-3 parts.
- 4. Emphasis should be given to cover the entire syllabus/contents with equal weightage to every part of the syllabus.

CONTENT: <u>Unit-1</u>

Introduction to the life cycle of a project, project identification, formulation, appraisal, monitoring and evaluation. The role of project formulation and appraisal in the planning process.

Methodology for project identification and formulation of opportunity studies, feasibility reports and detailed project reports. Policy parameters for appraisal of project reports. Planning Commission guidelines, requirements of principle financing agencies in the field of urban and regional planning. Review of project appraisal techniques adopted by financing agencies. Cost effectiveness analysis and const- benefit analysis.

<u>Unit-2</u>

Financial cost-benefit analysis. Cash flow analysis, time value of money, discounted cash flow analysis. Measures of project profitability based on market prices – Net present value, internal rate of return, benefit cost ratio, etc. Exercises and cases studies.

<u>Unit-3</u>

Economic cost-benefit analysis. Distinction between market prices and accounting prices, objective functions in economic costbenefit analysis, derivation and application of shadow wage rates. Measures of project profitability based on efficiency prices. Case Studies.

Measures of project profitability based on efficiency prices. Case Studies.

Social cost-benefit analysis: Trade-offs between efficiency and equity goals in project appraisal, measurement of direct and indirect costs and benefits in different sectors of urban and rural development. Adjustments for project impact on saving and investment, income distribution, consumption of merit and demerit goods. Case Studies.

<u>Unit-4</u>

Techniques for identifying and assessing conditions of risk and uncertainty in the project environment. Sensitivity and probability analysis in the Indian context. Emerging trends in the decision making process with respect to project appraisal and resource allocation at various levels of government.

- Michael Bambarger and Eleanor Hewitt, January, 1985, Monitoring and Evaluating, Urban Development Programmes: A hand book for program managers and Researchers, The World Bank, 1988
- 2. Warren C. Baum, 1993, The project cycle, World Bank Economic Development Projects, Washington
- 3. Henderson PD, Investment Criteria for Public Enterprises, Penguin Books

Contact Hours / week : 10 Sessional marks : 200 Portfolio Marks : 200 Total Marks : 400

CONTENT:

Study of an existing large cities and emerging metropolitan cities for its Urban Development and Planning.

The exercise pertains to large cities and emerging metropolitan cities and ranges from preparation of sustainable development plans to sector specific themes pertaining to tourism, SEZs or a particular land use etc.

The aim of the area appreciation is to enable the students to understand and contextualize the location of city, with its linkages and connectivity and in relation to the socio-economic, spatial and cultural characteristics of that city, zone, location, etc. The main purpose is to make the students appreciate the locational attributes of land parcels for future development in a city.

Due to the size of the area, this exercise is done in groups of students being assigned to a particular area.

The following planning issues at area level should be identified:

- Review of the Master Plan / Zonal / Area plan in relation to the selected areas.
- Appreciation / Analysis of ward level data.
- Perception of areas in terms of legal / illegal / authorized / unauthorized, Slums, Urban Aesthetics.
- Social Categorizations of people Type of population living, people's perception about area and its planning problems.
- Land use including Agriculture land and land use conflicts, extent (%) of broad land use such as commercial, industrial, residential, institutional and recreational.
- Extent of formal / informal activities present in the area including their location and conflicts.
- General land tenure of the area and land value for different uses.
- Major types of transport, type of roads, hierarchy of roads, type of transport modes used.
- Amenities: Location of Social and Physical infrastructure and their problems as perceived by local population. Look for specific infrastructure such as Water supply, drainage (water logging areas), waste collection and disposal system, sanitation, etc.
- Environmental Issues: Open Spaces Availability and extent of open space to built-up area, garbage disposal, encroachment (through photographic evidences and sketches).

Initial study involves understanding of the theories through extensive literature search and relevant case studies and associated norms and standards.

Further study pertains to application of GIS, remote sensing, demographic data and statistical analysis. Students are expected to analyze the data collected and come out with proposals and recommendations for planned development of the city.

Further study pertains to topical issues i.e. property tax reforms, informal sector, development of railway land, etc. The study is based on primary surveys and students are expected to analyze the information and arrive at recommendations.

Minimum Requirements:

- A. Alternative proposals for developing the land use within the overall framework of Master Plan.
- B. A comprehensive report containing introduction, reasons for selection of the town and particular land use in it, analysis, calculations, observations and recommendations.

Instruction to Paper Setter:

- 1. Exam. shall be of 3 hours duration and of Maximum Marks: 100. (Minimum Passing Marks:40)
- 2. Total EIGHT questions are to be set (two questions from each unit), and candidate have to attempt any five questions selecting one from each unit, each question of 20 marks each.
- 3. Each question may be further be sub divided into 2-3 parts .
- 4. Emphasis should be given to cover the entire syllabus/contents with equal weightage to every part of the syllabus.

CONTENT: <u>Unit-1</u>

Evolution of Ecology, Man and ecosphere.

Components of nature and some basic concepts, process of ecology, flow of material, water, energy, and invasion. Succession, predation, regulatory forces, adoption, trophic levels, food chains, food web, ecological pyramids.

Eco-system and their relevance to environment, resources and human settlements. Modifications in natural environment, causes and consequences.

Unit-2

Impact of advanced agriculture-methods, urbanization and industrialization on nature.

Pollution, types, sources, remedies.

Urban ecosystem approach, evolution and significance.

Introduction to quantitative ecology. Identification of ecological parameters for planning at different levels, Site planning, Settlement planning, Regional planning.

<u>Unit-3</u>

Data needs, formats for data collection Types of analysis required to evolve ecological parameters. Environmental impact assessment. Methods and their appraisal. Ecological awareness in India, traditional indigenous methods, contemporary trends. Endowments and resources, definition and classification according to different criteria, endues, renewable, non-renewable etc.

Space bound and flow resources, preparation and analysis of resource inventories and resource matrices.

Finiteness of resources, example of transfer from one resource to another in history in different part of world.

<u>Unit-4</u>

Development, utilization and conservation of resources, resource planning, integrated resource planning approach.

Resource regions, their problems and potentials. Resource management, traditional and contemporary approaches. Resource development in India, some selected areas (energy, water, manpower, etc.)

- 1. Sikkim Himalayas ecology and resource development- M. K. Bhasin, Veena Bhasin
- 2. Ecology and resource development in Southeast Gordon Conway
- 3. Ecology and Natural Resource Development in the Western Highlands- Cornelius Mbifung Lambi, Emmanuel Ndenecho Neba

TRANSPORTATION PLANNING MURP-203

Periods per Week: 4 Sessional Marks: 100 Theory Exam. Marks: 100 Total Marks: 200

Instruction to Paper Setter:

- 1. Exam. shall be of 3 hours duration and of Maximum Marks: 100. (Minimum Passing Marks:40)
- 2. Total EIGHT questions are to be set (two questions from each unit), and candidate have to attempt any five questions selecting one from each unit, each question of 20 marks each.
- 3. Each question may be further be sub divided into 2-3 parts .
- 4. Emphasis should be given to cover the entire syllabus/contents with equal weightage to every part of the syllabus.

CONTENT: <u>Unit-1</u>

Evaluation of urban structure. Transport systems, infrastructure and management, transport systems and their types, design and operating characteristics, urban road hierarchy, planning, engineering and management criteria for road and junction improvements, arterial improvement techniques. Transport survey and studies study area definitions, survey and their types. Sampling methods, survey techniques, programming, processing of travel data, analysis and interpretation of traffic studies.

Unit-2

Analytical techniques: Techniques for urban structure analysis, urban travel characteristics, urban transport planning process, land use transport interrelationship and models, scenario building and their analysis.

Mass transit systems: problems and prospects, tramways, trolley buses, LRTS, RTS-operation characteristics, planning transit systems.

<u>Unit-3</u>

Management of transport systems: Existing organizational and legal framework, traffic and environmental management techniques. Review of existing traffic management schemes in Indian cities.

Regional transport systems: Importance of accessibility in regional transport planning. Role of road, rail, air and water transport systems. Regional transport systems planning, road network planning for micro regions.

<u>Unit-4</u>

Transport and environment : Traffic noise, factor affecting noise statement measures, standards, air pollution standards, traffic safety, accident reporting and recording systems, factors affecting road safety, transport planning for target groups, children, adults, handicapped and women. Norms and guidelines for highway land scape, street lighting types, standards and design considerations.

Economic evaluation: Pricing and funding of transport service and systems, economic appraisal of highway and transport projects. Techniques for estimating direct and indirect road user costs and benefits, value of time.

- 1. Kadiyali L. R. 'Traffic Engineering and Transportation Planning' Khanna Publications. 1996.
- 2. Dimitriou H.T. Urban Transport Planning, A Development Approach, Routledge, London, 1992.
- 3. Hutchinson, B.G., 'Principles of Urban Transport systems planning' McGraw – Hill Book Co., New York 1980.

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- 1. Exam. shall be of 3 hours duration and of Maximum Marks: 100. (Minimum Passing Marks:40)
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- 3. Each question may be further be sub divided into 2-3 parts .
- 4. Emphasis should be given to cover the entire syllabus/contents with equal weightage to every part of the syllabus.

CONTENT:

<u>Unit-1</u>

Spatial planning in the regional context. Concepts and theories of marginality, growth and development. Issues in regional development, dualism and dependency, efficiency, equity and environmental goals, theories of Spatial Organisation, polarized growth, spread and backwash, centre and periphery.

Unit-2

National planning framework and general approach in India. Philosophy and status of regional planning in the planning process, sect oral, multi-level and integrated approach to planning, national policies on income distribution and provision of minimums basic needs.

<u>Unit-3</u>

Regional analysis techniques to understand regional spatial structure, regional economy, planning styles in developing countries and contemporary approaches to regional development, structural and functional aspects, agropolis and its applicability to India.

Unit-4

Development strategies in the regional context in regional to urban / rural area, people prosperity, growth pole and growth centre strategies, small and medium towns; industrial region, special area strategies for metropolitan region.

Techniques of target fixation in regional development inter-sectoral co-ordination. Formulation phasing and implementation of integrated area development plans and development plan for regions.

References:

1. Mumford, L., The Culture of Cities, Secker and Warburg, London, 1940.

2. Glosson, J., An Introduction to Regional Planning, Hutchinson & Co. (Publishers) Ltd., London.

1974.

3. Hilhorst, J.GM., Regional Planning, Rotterdam University Press, 1971.

4. Hilhorst, J.G.M. Regional development Theory: An Attempt to Synthesise, Institute of Social Studies, the Hague, 1967.

5. FrIedman, J., Regional Planning as a Field of Study, in Friedman, J., and Alonso, W., Regional Development and Planning. MIT Press, Mass. 1964.

Instruction to Paper Setter:

- 1. Exam. shall be of 3 hours duration and of Maximum Marks: 100. (Minimum Passing Marks:40)
- 2. Total EIGHT questions are to be set (two questions from each unit), and candidate have to attempt any five questions selecting one from each unit, each question of 20 marks each.
- 3. Each question may be further be sub divided into 2-3 parts .
- 4. Emphasis should be given to cover the entire syllabus/contents with equal weightage to every part of the syllabus.

CONTENT:

<u>Unit-1</u>

Statistics- Theory of probability, random, variables and distribution of sample statistics. Some important sampling distributions.

Statistical: inference: Estimation of population parameters, testing of hypotheses.

Unit-2

Elementary association models: Chisquare test; simple linear regression and correlation.

Time-series Analysis.

Index Numbers.

Statistics available for spatial analysis: An appraisal.

<u>Unit-3</u>

Population studies - Introduction, Scope, method, subject matter and relevance for spatial planning, sources of demographic data.

Interrelations: Population change, socioeconomic dimension of development and pattern of human settlements.

Population, composition and spatial distribution; population structure and composition, spatial distribution causes and implications of spatial differentiation.

<u>Unit-4</u>

Analysis of labour force, mortality and fertility, Life table technique, relevance for spatial planning. Theory models and measurement of internal migration, internal migration and urban growth. Population estimation and projection techniques relevant for regions and settlements. Indian population census data an appraise.

References:

- Gupta S.C, 'Fundamentals of Statistics', Himalaya Publishing House, New Delhi, 2004
 Morris Hamburg, 'Statistical Analysis for Decision Making', Harcourt Brace Jovanovich, Inc., New York, 1977
- 3. Pollard A. H (et al), 'Demographic Techniques', Pergamon Press, Sydney, 1981
- 4. Richard A. Johnson, 'Probability and Statistics for Engineers', Macmillan Business Books, New Delhi, 2000

5. Santhosh Gupta, 'Research Methodology and Statistical Techniques', Deep & Deep Publications Pvt. Ltd, New Delhi, 2003

LAND ECONOMICS MURP-212

Periods per Week: 4 Sessional Marks: 100 Theory Exam. Marks: 100 Total Marks: 200

Instruction to Paper Setter:

- 1. Exam. shall be of 3 hours duration and of Maximum Marks: 100. (Minimum Passing Marks:40)
- 2. Total EIGHT questions are to be set (two questions from each unit), and candidate have to attempt any five questions selecting one from each unit, each question of 20 marks each.
- 3. Each question may be further be sub divided into 2-3 parts.
- 4. Emphasis should be given to cover the entire syllabus/contents with equal weightage to every part of the syllabus.

CONTENT:

<u>Unit-1</u>

Economic concepts of land: Objectives scope of land economics, relevance for spatial planning. Economic principles of land uses, factors of specific uses like residential, industrial, commercial and institutional.

Unit-2

Development of land, real property and process. Cost of development, source of finance.

Unit-3

Real property market: Heterogenelly and imperfections, principles and practices.

Unit-4

Economic aspects of land policies at various levels of decision making.

- 1. Reading material of ITPI in the subject of Land Economics
- 2. F.S.Chapin, 1965, 'Urban Landuse Planning', Higg & brothers, New York.

Instruction to Paper Setter:

- 1. Exam. shall be of 3 hours duration and of Maximum Marks: 100. (Minimum Passing Marks:40)
- 2. Total EIGHT questions are to be set (two questions from each unit), and candidate have to attempt any five questions selecting one from each unit, each question of 20 marks each.
- 3. Each question may be further be sub divided into 2-3 parts .
- 4. Emphasis should be given to cover the entire syllabus/contents with equal weightage to every part of the syllabus.

CONTENT: <u>Unit-1</u>

Development management aspects, National goals and political-economic system effecting it. Development management and development process.

System of local government in India. Development administration at National, State, District and Local level and the process of decision making, development and management.

Unit-2

Functions, powers, structure and resources of local governments and their performance.

Identifications of other non-government developmental organizations and their relationship with local governments. Possibilities of qualitative improvement in plan administration.

Public relation and citizen participation.

Personal management, Manpower planning, performance, appraisal, motivation, and morale.

Unit-3

Organizational behaviour – organization theory, authority and conflict, administration communication, leadership in administration organizational changes.

Organizational structure and plan implementing agencies.

Local financial system in India-local taxation and fees, state and local fiscal relations, financing local services, local services, local expenditure, capital budgeting and performance budgeting. Financial resource mobilization. Policies and programems of related financial institutions, administrative aspects of investment.

<u>Unit-4</u>

Land Management practices and policies.

Classical persuasive and no-persuasive strategies and techniques, New techniques of management by objective (MBO), integrated reporting system, flow diagrams, bar charts, mile stones, networks (CPM & Pert), line of balance (LOB), Techniques of monitoring of development works, standard oriented costs control, turn keys system, vertical production method, inventory cost control technique, unified status index technique.

- 1. Musgrave and Musgrave, (1976), Public Finance in Theory an Practice, McGraw Hill
- 2. Tripathi, R.M., (1967), Local Finance in a Developing Economy, Cambridge Printing Press, New Delhi
- 3. Shafi S.S., ((1981), Planning the Indian Metropolis: Some Reconsideration in Urban Problems and Policy Perspectives, Abhinav Publications, New Delhi

Duration: 6 Weeks Sessional Marks: 50 Theory Exam. Marks: 50 Total Marks: 100

INTENT: The course intents to give insight into Planning practice

CONTENT:

Practical training for 6 weeks is to be carried out during the summer vacation after the second semester. Trainee may undertake the training in State/ Central Government Organizations like Town and country planning departments, urban local bodies, Development authorities like HUDA or HSIIDC or housing boards in planning wing, Planning board NCRPB, or Central govt. offices having planning wing, Consultant planning offices having planners registered with the Institute of Town Planners, India and should have minimum experience of 10 years and the students should obtain prior approval from the department. The students are expected to learn nuances of working on Master Plans/ Development Plans/ City development Plans/Zonal Plans etc. The students will work minimum 35 hours per week and submit weekly performance reports. During practical training students are required to study various aspects, as discussed during the preceding semester course and submit a report on the following aspects:

Α	General Information
	Name of Student
	Registration no. of student
	Placement of training
	Duration of training
B	Nature of organizational enterprise (explain type of activities the organization is involved in)
С	Organization structure and position of trainee
D	Types of consultancy followed (Enclose typical documents)
Ε	Chronological list of responsibilities assigned to the Trainee
F	List of the Works done during training (Enclose typical work outputs)
G	Experiences and inferences drawn during training
a	Typical planning stages followed
b	Legislative framework adopted
c	Details of Planning Standards adopted
d	Details of Planning Surveys adopted
e	Innovative Practices for implementation, Controls, development management and financial aspect
f	Transport planning practices adopted
g	Services (Physical infrastructure) Standards and Design Practices adopted
h	Communication systems, practices and planning processes adopted
i	Environmental policies and standards adopted
j	Standard Presentation practices adopted
k	any other information
1	Special features of the project work (enclose documents to explain and highlight peculiarities)

Contact Hours / week : 10 Sessional marks : 200 Portfolio Marks : 200 Total Marks : 400

CONTENT:

EXERCISE: Village/ Block development plan

Study of a cluster of villages with an objective to understand the location, spatial and economic linkages of the villages with a focus on the social and physical infrastructure and also understand the availability and usage of local resources.

Identify the problems and future possibilities for the development of management plans, village infrastructure, disaster risk, economic and social development etc.

Formulate projects, work out the appraisals and do the feasibility, viability and implementation mechanisms of the projects.

Case study village/ block, and collect data and interact with village panchayats and stakeholders. Prepare a Detailed Project Report (DPR) for any component/s of rural infrastructure. The scope of DPR shall be confined to cover all the stages of project preparation including:

- Identification of activities.
- Activity event chart (Network chart).
- Cost estimation.
- Time-cost chart (Gantt chart).
- Cost recovery plan.

The DPR so prepared shall be presented suitably in the form of maps, charts, diagrams, photographs, sketches supported by detailed report.

Prepare Development plan for a village or block level along with detailed report illustrated with drawing, sketches covering methodology, basis for requirements, norms and standards, used for providing infrastructure for a rural area.

The following planning issues at area level should be identified:

- Review of the existing Village/Block Development plan in relation to the selected areas.
- Appreciation / Analysis of ward level data.
- Perception of areas in terms of legal / illegal / authorized / unauthorized, Slums, Urban Aesthetics.
- Social Categorizations of people Type of population living, people's perception about area and its planning problems.
- Land use including Agriculture land and land use conflicts, extent (%) of broad land use such as commercial, industrial, residential, institutional and recreational. General land tenure of the area / different areas.
- Extent of formal / informal activities present in the area including their location and conflicts.
- Major types of transport, type of roads, hierarchy of roads, type of transport modes used.
- Amenities: Location of Social and Physical infrastructure and their problems as perceived by local population.
- Look for specific infrastructure such as Water supply, drainage (water logging areas), waste collection and disposal system, sanitation, etc.
- Environmental Issues: Open Spaces Availability and extent of open space to built-up area, garbage disposal, encroachment (through photographic evidences and sketches).

RURAL AND URBAN HOUSING MURP-302

Periods per Week: 4 Sessional Marks: 100 Theory Exam. Marks: 100 Total Marks: 200

Instruction to Paper Setter:

- 1. Exam. shall be of 3 hours duration and of Maximum Marks: 100. (Minimum Passing Marks:40)
- 2. Total EIGHT questions are to be set (two questions from each unit), and candidate have to attempt any five questions selecting one from each unit, each question of 20 marks each.
- 3. Each question may be further be sub divided into 2-3 parts .
- 4. Emphasis should be given to cover the entire syllabus/contents with equal weightage to every part of the syllabus.

CONTENT:

<u>Unit-1</u>

Definition of housing, housing as a basic need. Housing as an integral component of comprehensive urban and regional development. Housing form as shaped by physical, technological, socioeconomic, demographic and political factors. Role of housing in social and economic development. Housing as an index of social welfare. Housing in relation to stages of development particularly as related to developing economy.

<u>Unit-2</u>

Micro and Macro economic views of the housing sector. Housing situation and India in quantitative and qualitative terms. Housing statistics. Obstacles to provision of housing in India and emerging issues and priorities in urban rural housing. Basic considerations for the formulation of viable housing policy and programmes in consonance with availability of resources and feasibilities of implementation and management. Housing policy option in developing countries.

<u>Unit-3</u>

Housing programmes in Five Year Plans of India. Social housing programmes.

Role of private and co-operative sectors in housing. Housing in the informal sector. Problems of slums and squatting. Public housing programmes, site and services and slums upgradation approach. The concept of housing standards, issues involved in formulation of standards.

Unit-4

Housing and its relation to non-residential components of the settlement.

Socio-cultural perspective of housing, housing and family life. Principles of community Organization. Social sources of residential satisfaction. Community participation in the design and implementation of housing programmes. Public housing agencies in India at National, state and settlement level. Their functions and programmes.

References:

1. Kavita Datta and G.A. Jones (1999), 'Housing and Finance in Developing Countries', Routledge, London.

2. UNCHS (1994), 'National Experience with Shelter Delivery for the Poorest Group', UNCHS, Nairobi.

3. Gilbert A and Gugler J (1992), 'Cities Poverty and Development – Urbanization in Third World', Oxford University Press.

4. Cedric Pugh (1990), 'Housing and Urbanization', Sage Publications, New Delhi.

Instruction to Paper Setter:

- 1. Exam. shall be of 3 hours duration and of Maximum Marks: 100. (Minimum Passing Marks:40)
- 2. Total EIGHT questions are to be set (two questions from each unit), and candidate have to attempt any five questions selecting one from each unit, each question of 20 marks each.
- 3. Each question may be further be sub divided into 2-3 parts .

Emphasis should be given to cover the entire syllabus/contents with equal weightage to every part of the syllabus.

CONTENT:

<u>Unit-1</u>

Relevance of rural area for urban development, mutual dependence between urban and rural areas, between industry and agriculture. Characteristics of symbiotic development and the pattern of urban development in India in this context.

Levels of living of rural people-trends of development differentials in level of development between various regions within India and different socio economic group.

Unit-2

National planning and rural development. Concepts of planning for rural settlement. Regional development and urban rural partnership, related inputs and infrastructure development.

Agricultural development, allied activities and patterns of rural linkages, communication and marketing facilities, community development, institutions and delivery of social services.

<u>Unit-3</u>

Rural settlements, typology, structure, spatial significance in metro-regions and interior areas. Planning principles or villages and community norms.

Rural settlements, typology, structure, spatial significance in metro-regions and interior areas. Planning principles or villages and community norms.

Rural reconstruction. Basic needs and rural sanitation, water supply, hygiene and drainage. Technology transfer and options.

<u>Unit-4</u>

Area, district and block level development planning and implementation, public participation in rural development process, role of voluntary Organisation.

Rural energy issues, renewable and alternative sources of energy.

Ecological and environmental considerations in rural development and village planning.

- 1. H.A.Hye. 'Integrated Approach to Rural Development', Sterling Publishers, New Delhi, 1986.
- 2. B.S.Khanna, 'Rural Development in South Asia', Allied Publishers, New Delhi, 1991.
- 3. Keith Hoggard and Henry Builer, 'Rural Development A Geographical Perspective'. Croome Helm, London, 1987.
- 4. Misra. R.P.(ed.), 'Rural Development, National Policies and Experiences', UNCRD, Nagoya, Japan, 1981.

CONTENT:

Dissertation is a formal report written systematically on a particular topic as related to town and country planning. This exercise is taken up as to widen and enrich the literature pertaining to a topic of research. It may focus upon cross section of literature of a topic with or without research hypothesis. The material written systematically may be useful in fourth semester when the same topic with literature reviewed systematically be confined as a part of thesis.

The dissertation shall entail the following:

• Identification of an appropriate and focused research topic reflecting social and technological needs of the day

• Formulate synopsis including objectives, scope of work, methodology of work, case studies to be undertaken, site selection culminating in broad functional requirements.

• An investigation of the topic using an analysis of existing literature, case studies and other data sources

• To develop understanding of the research topic.

• Drawing informed and scientific conclusions from the research

(a) The dissertation shall be based on empirical study, field work, and textual analysis in the field of urban and rural planning. It should demonstrate candidate's capacity for analysis and judgment as also her/his ability to carry out independent viewpoint in interpretation. A dissertation may be supplemented by published work, if any.

(b) The dissertation shall present an orderly & critical exposition of existing knowledge of the subject or shall embody results of original interpretation and analysis & demonstrate the capacity of the candidate to do independent research work. While writing the dissertation, the candidate shall lay out clearly the work done by her/him independently and the sources from which she/he has obtained other information.

(c) The dissertation shall be prepared as per guidelines given in the dissertation manual. Nevertheless, the typing shall be done on both sides of the paper, the font size should be 12 point Times New Roman in 1.5 (one and a half) space but the reference and bibliography should be typed in single space in Harvard style. The paper to be used should be A-4 size and orientation should be portrait.

The dissertation shall be well structured document of not more than 15000 words with clear objectives and well -argued and appropriate conclusions indicating an appropriate level of expertise. The submission format for all stages shall be print and digital. Seminars in related areas to the dissertation topic (conceptual, historical, analytical, and comparative or in any other area related to urban or rural development and planning) are required to be presented at all stages during the entire semester.

Every student shall prepare a dissertation under the supervision of a faculty member (internal and main guide) on the topic approved by the Director / dissertation Coordinator .The dissertation shall be submitted in the form of Research, Report, case studies etc.

READING LIST: (to be amplified by the subject teacher)

1. McMillan, K & Weyers, J (2007) How to write dissertations and project reports. Pearson Prentice Hall.

2. Watson, G (1987) Writing a thesis: a guide to long essays and dissertations, London: Longman. Specialist bibliography according to the project.

Instruction to Paper Setter:

- 1. Exam. shall be of 3 hours duration and of Maximum Marks: 100. (Minimum Passing Marks:40)
- 2. Total EIGHT questions are to be set (two questions from each unit), and candidate have to attempt any five questions selecting one from each unit, each question of 20 marks each.
- 3. Each question may be further be sub divided into 2-3 parts .
- 4. Emphasis should be given to cover the entire syllabus/contents with equal weightage to every part of the syllabus.

CONTENT:

Unit-1

Components of natural and built enriroment. Resource indentification and its implications for human settlements: Human, physical social and culture. Conceptual understanding of quality of life.

Unit-2

Environmental criteria for location of human settlements. Recycling and reosources conservation. Priorities and strategies for development at various area levels.

Unit-3

Environmental planning, Programme coordination and protection. Energy and human settlements.

Innovation in technology application and energy use.

Unit-4

Design for living: Environmental design for planning. Integration of environmental assessments and planning options. Environmental management and overview.

- 1. Asesh Kumar Maitra, 'Urban Environment in Crisis', New Age International (P) Limited, Publishers, New Delhi.
- 2. Avijit Gupta and Mukul G. Asher, 'Environment and the Developing World', John Wiley & Sons, New York, USA.
- 3. Larry W. Canter, 'Environmental Impact Assessment', McGraw-Hill, Inc., New York, 1996.
- 4. Pannirselvam R and Karthikeyan (2005), 'Environmental Impact Assessment' SPGS Publishers, Chennai.
- 5. Rao P.K (2001), 'Sustainable Development', Blackwell Publishers, Massachusetts, USA.

URBAN & RURAL INFRASTRUCTURE PLANNING MURP-312

Periods per Week: 4 Sessional Marks: 100 Theory Exam. Marks: 100 Total Marks: 200

Instruction to Paper Setter:

- 1. Exam. shall be of 3 hours duration and of Maximum Marks: 100. (Minimum Passing Marks:40)
- 2. Total EIGHT questions are to be set (two questions from each unit), and candidate have to attempt any five questions selecting one from each unit, each question of 20 marks each.
- 3. Each question may be further be sub divided into 2-3 parts .
- 4. Emphasis should be given to cover the entire syllabus/contents with equal weightage to every part of the syllabus.

CONTENT:

<u>Unit-1</u>

Introduction: Importance, categories and definitions, Energy, urban and rural needs, responses, technologies importance of roads and communication in urban and rural development.

Unit-2

Water supply needs, resources, options of solutions & technologies.

Unit-3

Components and principles of solid waste management.

Unit-4

Other infrastructure: key issues and recent trends.

- 1. Introduction to Rural Planning Nick Gallent, Meri Juntti, Sue Kidd
- 2. Options for managing and financing **rural** transport **infrastructure** Christina Malmberg Calvo

Instruction to Paper Setter:

- 1. Exam. shall be of 3 hours duration and of Maximum Marks: 100. (Minimum Passing Marks:40)
- 2. Total EIGHT questions are to be set (two questions from each unit), and candidate have to attempt any five questions selecting one from each unit, each question of 20 marks each.
- 3. Each question may be further be sub divided into 2-3 parts.
- 4. Emphasis should be given to cover the entire syllabus/contents with equal weightage to every part of the syllabus.

CONTENT:

<u>Unit-1</u>

Concepts of law, Sources of law (i.e. custom, legislation and precedent) meaning of terms of law, legislation, ordinance, bill, act, regulations and byelaws.

Significance of law and its relationship to urban planning. Benefits of statutory backing for schemeseminent domain and policy powers.

Indian Constitution, Concept and contents. Provision regarding property rights. Legislative competence of State and Central Governments to enact town planning legislation.

National Environmental Policy Act.

<u>Unit-2</u>

Evolution of planning legislation. An overview of legal tools connected with urban planning and development. Town and Country planning Act. Urban Planning and Development Authorizes Act, objectives, contents, procedures for preparation and implementation of regional plans, master plans and town planning schemes.

Concept of arbitration, betterment levy, development charges and public participation in statutory planning process. Concept of structure plan, local plan and action plan under the English law.

<u>Unit-3</u>

Land Acquisition Act 1894. Basic concept, procedure for compulsory acquisition of property and determination of compensation.

Urban land (Ceiling and Regulation) Act 1976 objective, contents and planning implications.

Significance of land Development Control objectives and legal tools, critical evaluation zoning, subdivision regulation, building regulation, and byelaws. Development code, zoning law and law relating to periphery control.

<u>Unit-4</u>

Introduction to law relating to slum clearance, housing landscape and traffic. Legislation relating to urban conservation and restoration, historical monuments, archaeological sites.

Aims and objective of professional institutes sister bodes, professional role and responsibility of planning consultants, professional ethics, code of conduct and scale of professional charge.

Formulation of project proposal and outlines. Consultancy agreements and contracts, managerial aspects.

Role in inter-disciplinary groups. Appreciation of the decision making process, and the process in relation to varies consultancy assignments of planning.

- 1. C.K.Bikseswaran, 1964, 'The Madras Building (Lease and Rent Control Act), 1960, Sitaraman and Co., Madras.
- 2. Gopal Bhargava, 1983, 'Socio-economic and legal implications of urban land ceiling and regulations', Abhinav Publishing Company, New Delhi.
- 3. Government of Tamilnadu, 1976,'The Tamilnadu Town and Country Planning Act, 1971, Government of Tamilnadu.
- 4. B.I.S., 1980, "National Building Code of India', ISI, New Delhi

THESIS MURP-401

Periods per Week: @ One period per student per week for guide @ One period per week for thesis coordinator

Sessional Marks:	300
Portfolio Marks:	300
Total Marks:	600

CONTENT:

The project will be independent and allow exploration of issues within the scope of the subject area and to achieve a recognizable level of expertise in the subject. The thesis will demonstrate an understanding of subject related to urban and rural planning through an appropriate use of scientific and social science research techniques applied to an area of research in the planning discipline.

- The project shall entail the following:
- Formulate of a focused thesis topic.
- Conduct an investigation of the thesis topic using an analysis of existing literature.
- Develop understanding of the thesis topic and methodology
- Draw informed and scientific conclusions from the research

Based on the conclusion design interventions shall be made to achieve thesis objectives. The thesis report shall be well structured document of not more than 25000 words with clear objectives and well-argued and appropriate conclusions and design intervention indicating an appropriate level of expertise. The thesis report shall include all drawings to appropriate scale.

READING LIST: (to be amplified by the respective guide)

1. Evans, D & Gruba, P (2002) How to write a better thesis. 2nd Edition, Melbourne University Press.

2. Murray, R (2006) How to write a thesis. 2nd Edition, Maidenhead: Open University Press.

3. Turabian, K (2007) A manual for writers of research papers, theses, and dissertations, 7th Edition, Chicago: University of Chicago Press.

4. As appropriate for each individual thesis.