FACULTY OF PHYSICAL PLANNING & ARCHITECTURE SYLLABUS

For

Bachelor of Planning (Urban & Regional) (Semester System)
(Semester: I-IV)
(For New Students)

(CreditBased Evaluation and Grading System)

Bachelor of Technology (B.Tech.) (Urban & Regional Planning)
(SEMESTER: V- VIII)
(For Old Students)

(UnderCredit Based Continuous Evaluation System)

Examinations: 2019-20



GURUNANAKDEVUNIVERSITY AMRITSAR

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(ii) Subject to change in the syllabi at any time. Please visit the University website time to time.

Semester-I (Autumn Semester)

CourseNo.	Course	Title of the Course	C	redit	S	Total	Marks		
	Code		L	T	U	Credits	Internal	External	
GBL 101	С	Fundamentals of Urban and Regional					20	80	
		Planning	2	1	0	3			
GBL 103	С	Technical Report Writing and Research	2	1	0	3	20	80	
		Methodology							
GBL 104	С	Basic Architectural Design	2	1	0	3	20	80	
GBU 105	С	Map Preparation	0	1	8	5	50	50	
GBU 106	С	Map Graphics	0	1	4	3	50	50	
ENL 101	С	Communicative English – I	2	0	0	2	20	80	
PBL-121/	С	Punjabi Compulsory/	2	0	0	2	20	80	
PBL-122/		*ਮੁੱਢੌਲੀਪੰਜਾਬੀ [ੰ]							
HSL 101		**Punjab History & Culture(1450-1716)							
SOA 101	С	***Drug Abuse: Problem, Management	3	0	0	3	20	80	
		and Prevention (Compulsory ID Course)							
		Total Credits				21		<u> </u>	

Note: GBU 105 shall be undertaken after GBU 106 during the semester. Semester-II (Spring Semester)

Course No.	Course Code	Title of the Course	(Credits		Total	Mai	rks
			L	T	U	Credits	Internal	External
GBL 151	С	History of Planning Thought	2	1	0	3	20	80
GBL 153	С	Techniques of Planning -1	2	1	0	3	20	80
GBL 154	С	Elements of Geography	2	1	0	3	20	80
GBU 155	С	Survey of Locality	0	0	8	4	50	50
GBU 156	С	Computer Aided Design (CAD)	0	0	6	3	50	50
ENL 151	С	Communicative English – II	2	0	0	2	20	80
PBL-131/ PBL-132/		Punjabi Compulsory/ * ਮੁੱਢਲੀਪੰਜਾਬੀ /	2	0	0	2	20	80
HSL 102		** Punjab History & Culture (1717-1947)						
SOA 101	С	***Drug Abuse: Problem, Management and Prevention (Compulsory ID Course)	3	0	0	3	20	80
	Total Credits							

Note: GBU 155 shall be undertaken after GBU 156 during the semester

NOTE:-1. *Special Paper in lieu of Punjabi compulsory

- 2. **For those students who are not domicile of Punjab
- 3.*** Student can opt this Paper whether in 1st or 2nd Semester. (Compulsory ID Course)
- 4.PSL-053 ID Course Human Rights & Constitutional Duties (Compulsory ID Course).

Students can opt. this paper in any Semester except 1st Semester. This ID

Course is one of the total ID Papers of this course.

Semester-III (Autumn Semester)

Course No. Course Code	Course	Title of the Course	Credits			Total	Marks			
	Code	Title of the Course	L	T	U	Credits	Internal	External		
GBL 201	С	Planning Theory	2	1	. 0	3	20	.80		
GBL 203	С	Planning for Utilities	2	1	0	3	20	80		
GBL 204	С	Techniques of Planning -II	2	1	0	3	20	80		
GBL 205	С	Surveying & Photogrammetry	2	1	0	3	20	80		
GBU 206	С	Residential Site Planning	0	1	8	5	50	50		
GBU 207	С	Geo-Informatics for Planning	0	0	6	3	50	50		
ESL 220	С	Environmental Studies	4	0	Ö	Audit		•		
		(Compulsory)				Course				
	Total Credits 20									

Note: GBU 207 shall be undertaken after GBU 206 during the semester

Semester-IV (Spring Semester)

		·	Credits				Marks	
Course No.	Course Code	Title of the Course	L	Т	U	Total Credits	Internal	External
GBL 251	С	Real Estate	2	1	.0	3	20	-80
GBL 252	C	Transportation Planning – I	2	1	- 0	3	20	-80
GBU 254	С	Transportation Plan	0	1	• 6	· 4	50	-50
GBU 255	С	Study of Town	0	2	6	5	50	50
GBL 256	E1	Specifications, Estimation and Valuation	2	1	0	3	20	80
GBL 257	E1	Municipal Services Management	2	1	0	3	20	80
GBL 258	E2	Sociology of Settlements	2	1	0	3	20	80
GBL 259	E2	Sustainable Urban Development	2	1	0	3	20	80

Students have to select two elective courses, one each from E1 and E2.

Course No. to be added after	I	Student may opt a credit based	Credits to be added after
the student opts for a		undergraduate course from any	the student opts for a
particular course		department of the University of	particular course
		minimum 3 credits	
		Total Credits	24

Note: GBU 255 shall be undertaken after GBU 254 during the semester

Bachelor of Technology (B. Tech.) (Urban & Regional Planning) (Semester System) (2019-20) (Under Credit Based Continuous Evaluation Grading System)

Semester-V (Autumn Semester)

	Course	Title of the Course		redits	Total		
Course No.	Code		L	T	U	Credits	
GBL 301	С	Transportation Planning – II	2	1	0	3	
GBL 302	С	Planning Legislation	2	1	0	3	
GBL 303	С	Housing and Community Development	2	1	0	3	
GBU 304	С	Master Plan	0	2	4	4	
GBU 305	С	Study of Region	0	2	6	5	
GBL 306	Е	Urban Design	2	1	0	3	
GBL 307	Е	Landscape Planning	2	1	0	3	
Students have to	select one el	ective course from E.					
Course No. to be added after the student opts for a particular course	I	Student may opt a credit based undergraduate course from any department of the University of minimum 3 credits	Credits to be added after the stude opts for a particular course				
Total Credits		24					
Note: GBU 305 sha	all be underta	ken after GBU 304during the semes	ter				

Semester-VI (Spring Semester)

Course	Title of the Course	C	redit	S	Total		
Code	Title of the Course		T	U	Credits		
С	Project Formulation and	1	0	3			
	Management						
С	Regional Planning	2	1	0	3		
С	Regional Plan	0	2	4	4		
С	Village Plan	0	2	6	5		
Е	Planning for Special Area	2	1	0	3		
Е	Disaster Management	2	1	0	3		
select one	elective course from E.						
I	Student may opt a credit based undergraduate course from any department of the University of minimum 3 credits	Credits to be added after the student opts for a particular course					
Total Credits							
O3 C Internship (8 Weeks) (to be conducted after major tests of VIsemester and during summer vacations and viva-voce to be conducted in VII semester)							
	Code C C C E E select one	Code C Project Formulation and Management C Regional Planning C Regional Plan C Village Plan E Planning for Special Area E Disaster Management select one elective course from E. I Student may opt a credit based undergraduate course from any department of the University of minimum 3 credits C Internship (8 Weeks) (to be conducted after Visemester and during summer vacations and conducted in VII semester)	Code Code	Code Project Formulation and Management Code Code Code Code Regional Planning Code Code	Code Project Formulation and 2 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		

Bachelor of Technology (B. Tech.) (Urban & Regional Planning) (Semester System) (2019-20) (Under Credit Based Continuous Evaluation Grading System)

Semester-VII (Autumn Semester)

Course No	Course	Course Code Title of the Course		redi	ts	Total		
Course No.	Code			T	U	Credits		
GBL 401	С	Rural Settlement Planning	2	1	0	3		
GBL 402	С	Governance and Management	2	1	0	3		
GBE 403	С	Internship (8Weeks)	0	0	0	4		
GBU 404	С	Detail Project Report	0	0	6	3		
GBU 405	С	Special Area Plan	0	0	8	4		
GBL 406	Е	Community Participation in Planning	2	1	0	3		
GBL 407	Е	Metropolitan Planning	2	1	0	3		
Students have to	select one	elective course from E.						
Course No. to be	I	Student may opt a credit based	Cre	dits	to be	e added after		
added after the		undergraduate course from any	the student opts for a					
student opts for a		department of the University of	particular course			urse		
particular course		minimum 3 credits						
Total Credits								
GBF 457 C City Exposure (to be conducted after theory and						2		
planning practice classes of VII semester and Viva-								
voce to be conducted in the VIIIsemester)								
Note: GBU 404 shall be undertaken after GBU 405during the semester								

Semester-VIII (Spring Semester)

Course No.	Course	Title of the Course	Credits			Total	
Course No.	Code	Title of the Course	L	T	U	Credits	
GBD 451	С	Planning Dissertation	0	8	16	16	
GBF 457	C	City Exposure	0	0	0	2	
GBL 453	E1	Development Finance	2	1	0	3	
GBL 454	E1	Mega Projects	2	1	0	3	
GBL 455	E2	Professional Practice	2	1	0	3	
GBL 456	E2	Planning for Tourism	2	1	0	3	
Students have	e to select t	wo elective courses one each from E1 a	nd E2	2.			
Course No. to be	I	Student may opt a credit based	Cre	dits	to be	added after	
added after the		undergraduate course from any	the student opts for a				
student opts for		department of the University of	particular course				
a particular		minimum 3 credits					
course							
		Total Credits				27	

GBL 101: FUNDAMENTAL OF URBAN AND REGIONAL PLANNING

Credits: 03 (L=2, T=1, U=0)

Total Marks: 100

Mid Semester Examination: 20% weightage (20 Marks) End Semester Examination: 80% weightage (80 Marks)

Duration of examination: 3 Hours

Instructions for the Paper Setters:

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

Section A

Settlement: definition and characteristics, rural and urban settlements as per census; classification of towns, city, metropolis, megalopolis, interaction and interdependence between city-region. Census: its relevance in Urban & Regional Planning. Demography: definition and subject matter, relevance in Town & country planning.

Section B

Urbanization process: definition, character, function, migration, role of social, economic and demographic aspects on urbanization, major components of a settlement, major urban problems and their solutions. Planning process: definition, need and importance, function and type of planning (sectoral and spatial), administrative level of planning (local, block, dist, state and national), role of environment, society, economy, political, administrative and legal system on planning process.

Section C

Source of demographic data; population structure and composition - age sex composition, sex ratio, dependency ratio, child-woman ratio; measures of age-sex structure, age-sex pyramid, population composition and its relationship with Town Planning

Section D

Regional planning: definition, need and importance, objective, concept of region, types of regions - resource region, agro-climatic region, topographic region, contents of regional planning for block, district, state and national major regional problems and their solutions.

- 1 Ministry of Urban Affairs & Employment (G.O.I.)(2015). Urban Development Plans Formulation and Implementation Guidelines, TCPO, New Delhi.
- 2 Dasgupta, Samir, ed. (2012). Urban Sociology, Dorling Kindersley (India), New Delhi.
- 3 Kulshrestha, S.K. (2006). 'Dictionary of Urban and Regional Planning', Kalpaz Publications, Delhi.
- 4 Thooyavan, K.R. (2005) 'Human Settlements A Planning Guide to Beginners, M.A. Publications, Chennai.
- 5 Hussein Majid, (2002). Fundamentals of Physical. Geography, Second Edition, Rawat Publications, New Delhi.
- 6 Diwan & Kopardekar (1994). 'Urban and Regional Planning-Principles, Practice and Law' S.H. Kopardekar, Talegaon – Dabhade.
- 7 Sarin Madhu (1982). Urban Planning in third World, the Chandigarh Experience, Mansell Publishing House, London.
- 8 Branch, M. (1975). Urban Planning Theory, Dewden, Hutchinson & Ross Inc, Strondsburg Pennsylirania.
- 9 Keeble, L.(1972). 'Principles & Practice of Town and Country Planning', the EstatesGazette Ltd., London.

GBL 103: TECHNICAL REPORT WRITING AND RESEARCH METHODOLOGY

Credits: 03 (L=2, T=1, U=0)

Total Marks: 100

Mid Semester Examination: 20% weightage (20 Marks) End Semester Examination: 80% weightage (80 Marks) Duration of examination: 3 Hours

Instructions for the Paper Setters:

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

Section A

Report writing and its relevance in urban and regional planning; Types of reports, difference between technical, scientific, legal and other types of communications; specific characteristics of writing technical reports; English comprehension and oral communication.

Section B

Presentation techniques in digital and oral format for group discussion in seminars and meeting, Preface, acknowledgements, contents, indexing, key word indexing, introduction, body terminal section, appendices, references and its styles, footnotes and endnotes.

Section C

Literature surveys, Use of libraries, knowledge of indexing and available reference materials; Scientific research, need for scientific approach to research, Research methods, Hypotheses, testing of hypotheses.

Section D

Observations and its types, Relevance and methodology of Interview, preparing interview schedules, Relevance of Questionnaire, types and methodology of preparation, case examples from research in urban and regional planning.

- 1. Kumar, Ranjit (2005). Research Methodology An Introduction, Pearsons Education, Baba BalakNath Printers, New Delhi.
- 2. Crotty, Michael (2003). The Foundations of Social Research: Meaning and Perspective in the Research, Sage Publishers, London.
- 3. Wilkinson, T.S. and Bhandarkar, P.L. (1984). Methodology and Techniques of Social Research, Himalaya Publishers, New Delhi.
- 4. Gopal, M.H. (1970).An Introduction to Research Procedures in Social Sciences, ASIAN Publication House, Delhi.

GBL 104: BASIC ARCHITECTURAL DESIGN

Credits: 03 (L=2, T=1, U=0)

Total Marks: 100

Mid Semester Examination: 20% weightage (20 Marks) End Semester Examination: 80% weightage (80 Marks) Duration of examination: 3 Hours

Instructions for the Paper Setters:

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

Section A

Definition and scope of Architecture – relevance in local and physical environment, Architectural Language; The process of Design, Elements of Design; Point, Line, Plane, Colour, Light, Space and Material. Principles of Design – Balance, harmony, rhythm, proportions, scale, contrast, symmetry, variety, unity and diversity.

Section B

Objectives of Design; beauty, order, economy. Composition Formal / informal, two dimensional and three dimensional Compositions based upon principles of design. (e.g. preparation of collage, murals, motifs) Anthropometry and circulation area required for various activities.

Section C

Design of small spaces such as office, bus—stop, kiosk and single storey residential unit. Elements of a building: their functions and characteristics, Common types of foundations for buildings: Walls and columns, Cross sectional components of a single storey and Multi-storeyed building. Characteristics of the common building material used for these elements.

Section D

Planning Considerations for Buildings - Relevance of set-backs, Covered area, Plinth area, floor areas, carpet areas and FAR. Buildings in Hills, Tropical, costal and desert areas- form, design and planning approaches. Buildings for Special Areas and Purposes—Slums, Temporary Structures, General types and Material used.

- 1. Singh, Gurcharan (2014). Building Construction and Materials. Rajson Publication Pvt. Ltd. New Delhi.
- 2. Marco Bussagli (2013). Understanding Architecture. I.B. Tauris. London
- 3. Nathan B Winters. (2009). Architecture is Elementary: Visual Thinking Through Architectural Concepts. Gibbs Smith Publishers. US
- 4. National Building Code. (2006). Government of India. New Delhi.
- 5. David Gann, M. (2004). Building Innovation. Thomas Telford Publishing. London.
- 6. Merritt S. Frederick (2001). Building Design and Construction Handbook, Sixth Edition, McGRAW-HILL. New York.
- 7. Francis D.K. Ching (1996). Architecture Form, Space and Order. Van Nostrand Reinhold. New York.
- 8. Rajput, R.K. (1996). Strength of Materials. Sultan Chand & Company Ltd. New Delhi.
- 9. Punmia, B.C. (1994). P.C. Strength of Materials and Theory of Structures. Vol I, Laxmi Publications. Delhi.

GBU 105: MAP PREPARATION

Credits: 05 (L=0, T=2, U=6)

Total Marks: 100

Internal Examination: 50Marks External Examination: 50 Marks

- Basic elements of MAPS, components and presentation
- Scale and type of maps study of large scale, small scale maps, Land use maps of cities. (tracing of maps and understating of concept of scale)
- Different theme maps—census map series, geographical maps, components of working drawings of a site, buildings.
- Topographical maps sources, SOI specifications, grid formation, data factors, projection systems- Types, basic concepts, SOI guidelines and assumptions for projection systems, Study of SOI grids.
- Generation of Theme Maps from Base map_Land Use Types. Demonstration of Use of Statistical Data on Maps- Pictographically, Graph.
- Preparation of a base of a city:
- Copying an existing map and Generating map from other sources
- Components of a Base map for a city or part of a city
- Map presentation with colours.

- Strahler, A.H. and Strahler, A.N. (2001). Modern Physical Geography (Fourth Edition), John Wiley and Sons, Inc.1., New York
- 2. Khullar, D.R. (1999). Essentials of Practical Geography, New Academic Publishing Co., Jalandhar.
- 3. Singh, R.L. and Rana, P.B. (1998). Elements of Practical Geography, Kalyani Publishers, New Delhi.
- 4. Lal, D.S. (1996). Climatology, Chaitanya Publishing House, Allahabad
- 5. Robinson, H. (1978). Biogeography, ECBS & Mac Donald and Evans, London
- 6. Monkhouse and Willinson (1964). Maps and Diagrams, Methuen & Co., London.

GBU 106: MAP GRAPHICS

Credits: 04 (L=0, T=2, U=4)

Total Marks: 100

Internal Examination: 50 Marks External Examination: 50 Marks

The objective of this exercise is to orient students with the techniques of presentation. The students are required to undertake practical exercises as follow:

 Various types of grades of lines used in drawing. Meaning and description of plan, elevation and sections using geometrical shapes,

 Free hand sketching of solids, cones, cubes, cylinders, spheres. Free hand sketch ofvarious settlement elements – electric poles, street features, trees, shrubs, bus stopphysical natural features.

 Signs and Symbols used for different types of maps—building materials, landscapeelements, land use pattern for a city and regional, common sign conventions adopted fortopographical sheets.

Suggested Readings:

1. Strahler, A.H. and Strahler, A.N. (2001). Modern Physical Geography (Fourth Edition), John Wiley and Sons, Inc.1., New York

2. Khullar, D.R. (1999). Essentials of Practical Geography, New Academic Publishing Co., Jalandhar.

3. Singh, R.L. and Rana, P.B. (1998). Elements of Practical Geography, Kalyani Publishers, New Delhi.

- 4. Robinson, H. (1978). Biogeography, ECBS & Mac Donald and Evans, London
- 5. Monkhouse and Willinson (1964). Maps and Diagrams, Methuen & Co., London.

ENL 101 - COMMUNICATIVE ENGLISH-I

Credits: 02 (L= 2, T=0, U=0)

Total Marks: 100

Mid Semester Examination: 20% weightage (20 Marks) End Semester Examination: 80% weightage (80 Marks) Duration of examination: 3 Hours

Objective: To introduce students to the skills and strategies of reading and writing by identifying organizational patterns, spotting classification systems and understanding associations between ideas. This course will prepare students to read a variety of texts and also to communicate more effectively through writing. The course will also pay special attention to vocabulary building.

Instructions for the Paper Setters:-

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

Prescribed Text books:

- The Written Word by Vandana R. Singh, Oxford University Press, NewDelhi.
- Making Connections: A Strategic Approach to Academic Reading by Kenneth J. Pakenham, SecondEdition.

Section-A

"Word List", "Correct Usage of Commonly used words and Phrases" from the chapter "Vocabulary" given in *The Written Word* by Vandana R. Singh.

Section-B

Letter- writing as prescribed in *The Written Word* by Vandana R. Singh. Report writing as prescribed in *The Written Word* by Vandana R. Singh.

Section-C

Section 1 from *Making Connections: A Strategic Approach to Academic Reading* by Kenneth J. Pakenham, SecondEdition.

Section-D

Section 2 from *Making Connections: A Strategic Approach to Academic Reading* by Kenneth J. Pakenham, SecondEdition.

PBL 121 :ਪੰਜਾਬੀ ਲਾਜ਼ਮੀ - I (Credit Based)

Credit: 2-0-0

Total Marks: 100

Mid Semester Examination: 20% weightage (20 Marks) End Semester Examination: 80% weightage (80 Marks)

Duration of examination: 3 Hours

ਸੈਕਸ਼ਨ-ਏ

- . **ਦੋ ਰੰਗ** (ਸੰਪਾ. ਹਰਜਿੰਦਰ ਸਿੰਘ ਢਿੱਲੋਂ, ਪ੍ਰੀਤਮ ਸਿੰਘ ਸਰਗੋਧੀਆ) ਗੁਰੂ ਨਾਨਕ ਦੇਵ ਯੂਨੀਵਰਸਿਟੀ, ਅੰਮ੍ਰਿਤਸਰ ਵਿਚੋਂ ਹੇਠ ਲਿਖੇ ਕਵੀ :
 - (ੳ) ਭਾਈ ਵੀਰ ਸਿੰਘ
 - (ਅ) ਧਨੀ ਰਾਮ ਚਾਤ੍ਰਿਕ
 - (ੲ) ਪ੍ਰੋ. ਪੂਰਨ ਸਿੰਘ (ਕਵੀ ਦਾ ਜੀਵਨ, ਕਵਿਤਾ–ਸਾਰ, ਵਿਸ਼ਾ–ਵਸਤੂ, ਕਾਵਿ–ਕਲਾ)
- ॥. ਗੁਰਮੁਖੀ ਔਰਥੋਗਰਾਫੀ ਦੀ ਜੂਗਤ (ਪੈਂਤੀ, ਮੁਹਾਰਨੀ, ਬਿੰਦੀ, ਟਿੱਪੀ ਤੇ ਅੱਧਕ); ਵਿਸ਼ਰਾਮ ਚਿੰਨ੍ਹ,ਸ਼ਬਦ ਜੋੜ (ਸ਼ੁਧ-ਅਸ਼ੁਧ)

ਸੈਕਸ਼ਨ-ਬੀ

- ı. **ਦੋ ਰੰਗ** (ਸੰਪਾ. ਹਰਜਿੰਦਰ ਸਿੰਘ ਢਿੱਲੋਂ, ਪ੍ਰੀਤਮ ਸਿੰਘ ਸਰਗੋਧੀਆ) ਗੁਰੂ ਨਾਨਕ ਦੇਵ ਯੂਨੀਵਰਸਿਟੀ, ਅੰਮ੍ਰਿਤਸਰ ਵਿਚੋਂ ਹੇਠ ਲਿਖੇ ਕਵੀ :
 - (ੳ) ਫਿਰੋਜ਼ਦੀਨ ਸਰਫ
 - (ਅ) ਪ੍ਰੋ. ਮੋਹਨ ਸਿੰਘ (ਕਵੀ ਦਾ ਜੀਵਨ, ਕਵਿਤਾ-ਸਾਰ, ਵਿਸ਼ਾ-ਵਸਤੂ, ਕਾਵਿ-ਕਲਾ)
- ॥. ਲੇਖ ਰਚਨਾ (ਜੀਵਨੀ-ਪਰਕ, ਸਮਾਜਕ ਅਤੇ ਚਲੰਤ ਵਿਸ਼ਿਆਂ ਉੱਤੇ) : 10 ਲੇਖ ਲਿਖਵਾਉਣੇ (ਕਲਾਸ ਵਿਚ ਅਤੇ ਘਰ ਲਈ ਅਭਿਆਸ)

ਸੈਕਸ਼ਨ-ਸੀ

- ı. **ਦੋ ਰੰਗ** (ਸੰਪਾ. ਹਰਜਿੰਦਰ ਸਿੰਘ ਢਿੱਲੋਂ, ਪ੍ਰੀਤਮ ਸਿੰਘ ਸਰਗੋਧੀਆ) ਗੁਰੂ ਨਾਨਕ ਦੇਵ ਯੂਨੀਵਰਸਿਟੀ, ਅੰਮ੍ਰਿਤਸਰ ਵਿਚੋਂ ਹੇਠ ਲਿਖੇ ਕਵੀ :
 - (ੳ) ਨੰਦ ਲਾਲ ਨੂਰਪੁਰੀ
 - (ਅ) ਅਮ੍ਰਿਤਾ ਪ੍ਰੀਤਮ
 - (ੲ) ਡਾ. ਹਰਿਭਜਨ ਸਿੰਘ (ਕਵੀ ਦਾ ਜੀਵਨ, ਕਵਿਤਾ-ਸਾਰ, ਵਿਸ਼ਾ-ਵਸਤੂ, ਕਾਵਿ-ਕਲਾ)
- ॥. ਸੁੱਧ, ਅਸੁੱਧ : ਦਿੱਤੇ ਪੈਰ੍ਹੇ ਵਿਚੋਂ ਅਸੁੱਧ ਸ਼ਬਦਾਂ ਨੂੰ ਸੁੱਧ ਕਰਨਾ (15 ਪੈਰਿਆਂ ਦੇ ਸ਼ੱਧ ਅਸ਼ੱਧ ਅਭਿਆਸ ਕਰਵਾੳਣੇ)

ਸੈਕਸ਼ਨ-ਡੀ

- ı. **ਦੋ ਰੰਗ** (ਸੰਪਾ. ਹਰਜਿੰਦਰ ਸਿੰਘ ਢਿੱਲੋਂ, ਪ੍ਰੀਤਮ ਸਿੰਘ ਸਰਗੋਧੀਆ) ਗੁਰੂ ਨਾਨਕ ਦੇਵ ਯੂਨੀਵਰਸਿਟੀ, ਅੰਮ੍ਰਿਤਸਰ ਵਿਚੋਂ ਹੇਠ ਲਿਖੇ ਕਵੀ :
 - (ੳੱ) ਸ਼ਿਵ ਕੁਮਾਰ ਬਟਾਲਵੀ
 - (ਅ) ਸੁਰਜੀਤ ਪਾਤਰ

(ਕਵੀ ਦਾ ਜੀਵਨ, ਕਵਿਤਾ-ਸਾਰ, ਵਿਸ਼ਾ-ਵਸਤੂ, ਕਾਵਿ-ਕਲਾ)

॥. ਅਖ਼ਬਾਰੀ ਇਸ਼ਤਿਹਾਰ : ਨਿੱਜੀ, ਦਫ਼ਤਰੀ ਤੇ ਸਮਾਜਕ ਗਤੀਵਿਧੀਆਂ ਨਾਲ ਸੰਬੰਧਤ

ਅੰਕ-ਵੰਡ ਅਤੇ ਪਰੀਖਿਅਕ ਲਈ ਹਦਾਇਤਾਂ

- 1. ਪ੍ਰਸ਼ਨ ਪੱਤਰ ਦੇ ਚਾਰ ਭਾਗ ਹੋਣਗੇ। ਹਰ ਭਾਗ ਵਿਚੋਂ ਦੋ ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣਗੇ।
- 2. ਵਿੰਦਿਆਰਥੀ ਨੇ ਕੁੱਲ ਪੰਜ ਪ੍ਰਸ਼ਨ ਕਰਨੇ ਹਨ। ਹਰ ਭਾਗ ਵਿਚੋਂ ਇਕ ਪ੍ਰਸ਼ਨ ਲਾਜ਼ਮੀ ਹੈ। ਪੰਜਵਾਂ ਪ੍ਰਸ਼ਨ ਕਿਸੇ ਵੀ ਭਾਗ ਵਿਚੋਂ ਕੀਤਾ ਜਾ ਸਕਦਾ ਹੈ।
- 3. ਹਰੇਕ ਪ੍ਰਸ਼ਨ ਦੇ ਬਰਾਬਰ ਅੰਕ ਹਨ।
- 4. ਪੇਪਰ ਸੈੰਟ ਕਰਨ ਵਾਲਾ ਜੇਕਰ ਚਾਹੇ ਤਾਂ ਪ੍ਰਸ਼ਨਾਂ ਦੀ ਵੰਡ ਅੱਗੋਂ ਵੱਧ ਤੋਂ ਵੱਧ ਚਾਰਉਪ-ਪ੍ਰਸ਼ਨਾਂ ਵਿਚ ਕਰ ਸਕਦਾ ਹੈ।

PBL-122: ਮੁੱਢਲੀ ਪੰਜਾਬੀ (In lieu of Punjabi Compulsory)

Credits: 2-0-0

Total Marks: 100

Mid Semester Examination: 20% weightage (20 Marks) End Semester Examination: 80% weightage (80 Marks) Duration of examination: 3 Hours

ਪਾਠ-ਕ੍ਰਮ

ਸੈਕਸ਼ਨ-ਏ

ਪੈਂਤੀ ਅੱਖਰੀ, ਅੱਖਰ ਕ੍ਰਮ, ਮਾਤ੍ਰਾਵਾਂ (ਮੁਢਲੀ ਜਾਣ-ਪਛਾਣ)

ਲਗਾਖਰ (ਬਿੰਦੀ, ਟਿੱਪੀ, ਅੱਧਕ) : ਪਛਾਣ ਤੇ ਵਰਤੋਂ

ਸੈਕਸ਼ਨ-ਬੀ

ਪੰਜਾਬੀ ਸ਼ਬਦ ਬਣਤਰ : ਮੁੱਢਲੀ ਜਾਣ-ਪਛਾਣ ਸਾਧਾਰਨ ਸ਼ਬਦ, ਸੰਯੁਕਤ ਸ਼ਬਦ, ਮਿਸ਼ਰਤ ਸ਼ਬਦ ਮੂਲ ਸ਼ਬਦ, ਅਗੇਤਰ ਅਤੇ ਪਿਛੇਤਰ

ਸੈਕਸ਼ਨ-ਸੀ

ਸ਼ੁੱਧ ਅਸ਼ੁੱਧ : ਦਿੱਤੇ ਪੈਰ੍ਹੇ ਵਿਚੋਂ ਅਸ਼ੁੱਧ ਸ਼ਬਦ ਨੂੰ ਸ਼ੁੱਧ ਕਰਨਾ।

ਸਮਾਨਾਰਥਕ ਤੇ ਵਿਰੋਧਾਰਥਕ ਸ਼ਬਦ

ਸੈਕਸ਼ਨ-ਡੀ

ਹਫਤੇ ਦੇ ਸੱਤ ਦਿਨਾਂ ਦੇ ਨਾਂ, ਬਾਰ੍ਹਾਂ ਮਹੀਨਿਆਂ ਦੇ ਨਾਂ, ਰੁੱਤਾਂ ਦੇ ਨਾਮ, ਇਕ ਤੋਂ ਸੌ ਤੱਕ ਗਿਣਤੀ ਸ਼ਬਦਾਂ ਵਿੱਚ।

ਅੰਕ-ਵੰਡ ਅਤੇ ਪਰੀਖਿਅਕ ਲਈ ਹਦਾਇਤਾਂ

- 1. ਪਸ਼ਨ ਪੱਤਰ ਦੇ ਚਾਰ ਭਾਗ ਹੋਣਗੇ। ਹਰ ਭਾਗ ਵਿਚੋਂ ਦੋ ਪਸ਼ਨ ਪੁੱਛੇ ਜਾਣਗੇ।
- 2. ਵਿੰਦਿਆਰਥੀ ਨੇ ਕੁੱਲ ਪੰਜ ਪ੍ਰਸ਼ਨ ਕਰਨੇ ਹਨ। ਹਰ ਭਾਗ ਵਿਚੋਂ ਇਕ ਪ੍ਰਸ਼ਨ ਲਾਜ਼ਮੀ ਹੈ। ਪੰਜਵਾਂ ਪ੍ਰਸ਼ਨ ਕਿਸੇ ਵੀ ਭਾਗ ਵਿਚੋਂ ਕੀਤਾ ਜਾ ਸਕਦਾ ਹੈ।
- 3. ਹਰੇਕ ਪ੍ਰਸ਼ਨ ਦੇ ਬਰਾਬਰ ਅੰਕ ਹਨ।
- 4. ਪੇਪਰ ਸੈੰਟ ਕਰਨ ਵਾਲਾ ਜੇਕਰ ਚਾਹੇ ਤਾਂ ਪ੍ਰਸ਼ਨਾਂ ਦੀ ਵੰਡ ਅੱਗੋਂ ਵੱਧ ਤੋਂ ਵੱਧ ਚਾਰ ਉਪ-ਪ੍ਰਸ਼ਨਾਂਵਿਚ ਕਰ ਸਕਦਾ ਹੈ।

HSL-101: Punjab History & Culture (1450-1716) (Special paper in lieu of Punjabi Compulsory) (For those students who are not domicile of Punjab)

Credits: 2-0-0

Total Marks: 100

Mid Semester Examination: 20% weightage (20 Marks) End Semester Examination: 80% weightage (80 Marks) Duration of examination: 3 Hours

Instructions for the Paper Setters:

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

Section-A

- 1. Land and the People.
- 2. Bhakti Movement

Section-B

- 3. Life and Teaching of Guru Nanak Dev.
- 4. Contribution of Guru Angad Dev, Guru Arjun Dev, Guru Amar Das and Guru Ram Das.

Section-C

- 5. Guru Hargobind.
- 6. Martyrdom of Guru Teg Bahadur

Section-D

- 7. Guru Gobind Singh and the Khalsa.
- 8. Banda Singh Bahadur: Conquests and Execution.

- 1. Kirpal Singh(ed.), *History and Culture of the Punjab, Part-ii, Punjabi University*, Patiala. 1990.
- 2. Fauja Singh (ed.), History of Punjab, Vol, III Punjabi University, Patiala, 1987.
- 3. J.S. Grewal, The Sikhs of the Punjab, Cup, Cambridge, 1991.
- 4. Khushwant Singh, A History of the Sikhs, Vol. I, OUP, New Delhi, 1990

Bachelor of Planning (Urban & Regional) (Semester-I) (2019-20) (Credit Based Evaluation and Grading System) DRUG ABUSE: PROBLEM, MANAGEMENT AND PREVENTION (Compulsory ID Course)

(Student can opt this Paper in 1st or 2nd Semester) SOA: 101 - PROBLEM OF DRUG ABUSE

Time: 3 Hours Credit 3-0-0

Total Marks: 100

Mid Semester Examination: 20% weightage (20 Marks) End Semester Examination: 80% weightage (80 Marks) Duration of examination: 3 Hours

Instructions for the Paper Setters:

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

Section – A

Meaning of Drug Abuse:

1) Meaning, Nature and Extent of Drug Abuse in India and Punjab.

2) Consequences of Drug Abuse for:

Individual : Education, Employment, Income.

Family : Violence. Society : Crime.

Nation : Law and Order problem.

Section - B

Management of Drug Abuse:

- (i) Medical Management: Medication for treatment and to reduce withdrawal effects.
- (ii) Psychiatric Management: Counselling, Behavioural and Cognitive therapy.
- (iii) Social Management: Family, Group therapy and Environmental Intervention.

Section - C

Prevention of Drug abuse:

- (i) Role of family: Parent child relationship, Family support, Supervision, Shaping values, Active Scrutiny.
- (ii) School: Counselling, Teacher as role-model. Parent-teacher-Health Professional Coordination, Random testing on students.

Section - D

Controlling Drug Abuse:

- (i) Media: Restraint on advertisements of drugs, advertisements on bad effects of drugs, Publicity and media, Campaigns against drug abuse, Educational and awareness program
- (ii) Legislation: NDPs act, Statutory warnings, Policing of Borders, Checking Supply/Smuggling of Drugs, Strict enforcement of laws, Time bound trials.

References:

- 1. Ahuja, Ram (2003), Social Problems in India, Rawat Publication, Jaipur.
- 2. Extent, Pattern and Trend of Drug Use in India, Ministry of Social Justice and Empowerment, Government of India, 2004.
- 3. Inciardi, J.A. 1981. The Drug Crime Connection. Beverly Hills: Sage Publications.
- 4. Kapoor. T. (1985) Drug epidemic among Indian Youth, New Delhi: Mittal Pub.
- 5. Kessel, Neil and Henry Walton. 1982, Alcohalism. Harmond Worth: Penguin Books.
- 6. Modi, Ishwar and Modi, Shalini (1997) *Drugs: Addiction and Prevention*, Jaipur: Rawat Publication.
- 7. National Household Survey of Alcohol and Drug abuse. (2003) New Delhi, Clinical Epidemiological Unit, All India Institute of Medical Sciences, 2004.
- 8. Ross Coomber and Others. 2013, *Key Concept in Drugs and Society*. New Delhi: Sage Publications.
- 9. Sain, Bhim 1991, *Drug Addiction Alcoholism*, Smoking obscenity New Delhi: Mittal Publications.
- 10. Sandhu, Ranvinder Singh, 2009, *Drug Addiction in Punjab*: A Sociological Study. Amritsar: Guru Nanak Dev University.
- 11. Singh, Chandra Paul 2000. *Alcohol and Dependence among Industrial Workers*: Delhi: Shipra.
- 12. Sussman, S and Ames, S.L. (2008). *Drug Abuse: Concepts, Prevention and Cessation,* Cambridge University Press.
- 13. Verma, P.S. 2017, "Punjab's Drug Problem: Contours and Characterstics", Economic and Political Weekly, Vol. LII, No. 3, P.P. 40-43.
- 14. World Drug Report 2016, United Nations office of Drug and Crime.
- 15. World Drug Report 2017, United Nations office of Drug and Crime.

GBL 151: HISTORY OF PLANNING THOUGHT

Credits: 03 (L=2, T=1, U=0)

Total Marks: 100

Mid Semester Examination: 20% weightage (20 Marks) End Semester Examination: 80% weightage (80 Marks)

Duration of examination: 3 Hours

Instructions for the Paper Setters:

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

Section A

Place making in History from caves to agrarian society; the historical context of urbanization; Town Planning considerations (Site selection and planning process) in ancient India from ancient texts and treatises; Classification of ancient Indian settlements

SectionB

Characteristics of cities and planning considerations in ancient classic civilizations: Greek urban civilization, Roman urban civilization, Egyptian urban civilization and Mesopotamian urban civilization; Medieval Town Planning and renaissance in Europe: case studies; Industrial revolution and its impact on city planning in Europe

SectionC

Medieval Town Planning in India and influence of Indo-Sarsenic culture: (case studies: Fatehpur Sikri; Shahjahanabad); Post-medieval town planning: Sikh towns, Site selection and characteristics, case study- Amritsar; Principles of British Colonial settlement planning in India; Industrial Towns Movement in India, Case Study- Rourkela

SectionD

Capital Cities in India: case study- *Bhubaneswar*; Town Improvement and City Beautiful Movements; Planning Thought: Ebenezer Howard- Concept of Garden City, Planning Philosophy of Patrick Geddes, Patrick Abercrombie- Planning Philosophy and surveys to be performed for planning, Sorya Y. Mata- Linear city, Tony Garnier- Concept of Industrial City, Planning concepts of Le Corbusier, Clarence Arthur Perry- Principles of Neighbourhood planning and Design, F.L. Wright- Broadacre City, New Towns in India: Chandigarh, Auroville.

Suggested Readings:

- 1. Hall, P. (2014). "Cities of Tomorrow: An Intellectual History of Urban Planning and Design Since 1880", Wiley and sons, Hoboken.
- 2. Fainstein, S. (2012). "Readings in Planning Theory", 3rd Edition, Blackwell Publishing, Oxford.
- 3. Hall, P. (2002). "Cities of Tomorrow: An Intellectual History of Urban Planning and Design in the 21st Century", Blackwell Publications, Oxford.
- 4. Ward, S. (2002). "Planning the Twentieth Century City", The Advanced Capitalist World, John Wiley & Sons, Chichester.
- 5. Hall, P. (1998). "Cities in Civilization; Culture, Technology and Urban Order", Weidenfield and Nicolson, London.
- 6. Stein, M. J. (1995). "Classic Readings in Urban Planning", McGraw-Hill, New York
- 7. Nath, R. (1995). "Medieval Indian History and Architecture", APH Publishing Pvt. Ltd, New Delhi.
- 8. Lynch, K. (1981). "A Theory of Good City Form", Cambridge Publications, London.
- 9. Gallion, A. (1963). "The Urban pattern; City Planning and Design", D.V. Nostrand Company Inc, N.York.

Recommended Journals

- 1. Planning Theory, Sage
- 2. Planning Theory and Practice, Taylor and Francis
- 3. Journal of Planning History, Sage

GBL 153: TECHNIQUES OF PLANNING-I

Credits: 03 (L=2, T=1, U=0)

Total Marks: 100

Mid Semester Examination: 20% weightage (20 Marks) End Semester Examination: 80% weightage (80 Marks)

Duration of examination: 3 Hours

Instructions for the Paper Setters:

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

SectionA

Introduction to data – Data types: spatial and non– spatial data, relevance in urban and regional planning, data sources (non– spatial): census – economic, housing and migration Tables, Primary census abstract, Types, town Directory, village directory, and data classification of census, Gazetteer, Statistical abstract. Traditional land records - Shajra plan, revenue record, jamabandi, intekaal.

Section B

Planning standards – Different sources of Planning standards (TCPO, URDPFI, PUDA, development authorities), Landuse classification,—city size and classification types, standards for Residential, commercial, industrial (industrial area, estate, zones) open spaces (types, hierarchy and space standards), facilities and services;

Section C

Survey techniques at local , urban , and regional level—Physiographic Surveys — Elements (soil types, underground and surface water vegetation ,topography); Building Byelaws, Building condition survey — traditional elements, modern and any other, Socio—economic survey; Methods of conducting survey—interview questionnaire, scheduling; sampling techniques.

Section D

Analysis techniques –Identification of planning units at different levels, analysis of spatial data (weight age index method, graphical method), aspect wise analysis, cross–tabular analysis and data tabulation and compilation techniques,. Data presentation techniques – diagrams, graphs, cartograms, choropleth, choro-schematic, chorochromatic, dot method to present level of development (spatial), density pattern and other types of planning analysis.

- 1. Ministry of Urban Affairs & Employment (G.O.I.). (2015) Urban Development Plans Formulation and Implementation Guidelines, T.C.P.O., New Delhi.
- 2. Thooyavan, K.R. (2005). Human Settlements A Planning Guide to Beginners, MA Publication, Chennai.
- 3. Kulshrestha, S.K. (2006). Dictionary of Urban and Regional Planning, Kalpaz Publications, Delhi.
- 4. Saini & Mahavir, (1985). Urban Development Planning Strategies and Techniques, Central Electric Press, Delhi.

GBL 154: ELEMENTS OF GEOGRAPHY

Credits: 03 (L=2, T=1, U=0)

Total Marks: 100

Mid Semester Examination: 20% weightage (20 Marks) End Semester Examination: 80% weightage (80 Marks) Duration of examination: 3 Hours

Instructions for the Paper Setters:

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

SectionA

Definition and subject matter, main branches of Geography and their broad coverage, need and importance of geographic considerations in Physical Planning. Structure of Earth; Landforms their types and significance. Endogenous processes; Vertical and Horizontal Earth Movements, Exogenous Processes; the process of gradation, aggradations and degradation. Soil Profile; Its characteristics and formation, classification of soil and their distribution in India.

Section B

Climate and its determinants and components, Climatic conditioning through planning and design; solar control and wind movement at site and building level. Regionalization schemes of India: Physiographic, Climate, Agriculture and Industrial.Geographical regions (e.g. seismic region, flood prone region, cyclone prone areas).

Section C

Study of topographical Maps, Open Street Mapping. Maps: their classification and types, Distributional Map: Isopleth Maps, Choropleth Maps, Dot Maps, Flow-line maps. Types of Scale. Representation of geographical data: (qualitative, choropleth, proportional symbol, dot, cartogram) relief depiction methods: contours, hachure's and form lines, morph metric analysis (profiles, gradient and slope). Representation of Climatic data: Isobars, Isotherm, Isohel, Isohume, Isohyet, Isoneph. Climograph, Hythergraph, Wind rose.

Section D

Significance and Recent Trends in Settlement Geography; Evolution of Settlements in India: Emergence of Village Settlements, Origin and Growth of Towns. Settlement patterns: Rural Morphology and Urban Morphology. Form and structure of Human settlements and Buildings in warm, humid, hot, dry composite and upland climates (with special reference to India).

- 1. Gabler, R. E., Petersen, J. F. and Trapasso, L. M. (2007). Essentials of Physical Geography (Eighth Edition), Thompson, Brooks/Cole, USA.
- 2. Singh, Savindra (2008). Physical Geography, PrayagPustakBhawan, Allahabad.
- 3. Lal, D.S. (1996). Climatology, Chaitanya Publishing House, Allahabad.
- 4. Robinson, H. (1978). Biogeography, ECBS & Mac Donald and Evans, London.
- 5. Strahler, A. H. and Strahler, A.N. (2001). Modern Physical Geography (Fourth Edition), John Wiley and Sons, Inc., New York.
- 6. Monkhouse and Willinson (1964). Maps and Diagrams, Methuen & Co., London.
- 7. Singh, R.L. and Rana, P.B. Singh (1998). Elements of Practical Geography, Kalyani Publishers, New Delhi.
- 8. Khullar, D. R. (1999). Essentials of Practical Geography, New Academic Publishing Co., Jalandhar.
- 9. Hudson, F. S. (1976). Geography of Settlements, Macdonald, London.
- 10. Northam Ray, M. (1979). Urban Geography, John Wiley and Sons, New York.
- 11. Singh, R.L. and Singh K.N. (eds.) (1975). Reading in Rural Settlement Geography, National Geographical Society of India, Varanasi.

GBU 155: SURVEY OF LOCALITY

Credits: 06 (L=0, T=3, U=6)

Total Marks: 100

Internal Examination: 50 Marks External Examination: 50 Marks

The purpose of the exercise is to train students in art of conducting surveys and preparing or updating a base maps of city or its part, understand the nature of different activities and preparation of survey, questionnaire of data. The aim is to understand the physical, social, visual and environment aspects of an area and data presentation techniques. Following aspects are covered

- Site in relation to the city and surrounding landuse.
- Site inventory, topography, existing land use, site resources and physiographic conditions.
- Data collection of following aspects: physical, socio-economic, physical and social infrastructure, traffic and transportation, building condition, housing,
- The study shall be suitably presented in form of a report illustrated with necessary drawings, maps charts, diagrams and photographs.

"Note: The Students are required to undertake field surveys for data Collection for the said Planning Studio Exercise."

- 1. Ministry of Urban Affairs & Employment (G.O.I.) (2015). Urban & Regional Development Plans Formulation and Implementation Guidelines, TCPO, New Delhi.
- 2. Khullar, D.R. (1999). Essentials of Practical Geography, New Academic Publishing Co., Jalandhar.
- 3. Monkhouse and Willinson (1964). Maps and Diagrams, Methuen & Co., London.

GBU 156: COMPUTER AIDED DESIGN

Credits: 04 (L=0, T=2, U=4)

Total Marks: 100

Internal Examination: 50 Marks External Examination: 50 Marks

- 1. Setting up of a drawing Coordinate system, Limits, Units, Precision, Lines, Poly-lines, Simple modification commands, Simple Dimensioning, Dtext.
- 2. Layers, Circles, Ellipse, Arc, Polygons, Spline, Advance modification commands.
- 3. Array, Hatching, Mtext, Advanced Dimensioning, Scale, Concepts of blocks and external referencing, Printing of drawing.
- 4. Introduction to 3D in AutoCad

In addition, a final practical examination will be conducted.

- 1. Moss Elise AutoCAD Architecture 2010 Fundamentals (2013). Deep Publishers. New Delhi
- 2. George Omura (2010). Mastering AutoCAD. BPB Publications. New Delhi.
- 3. Frazer (2009). Understanding AutoCAD. Tata McGraw Hill. New York.
- 4. Joseph Goldenberg (2009). AutoCAD Architecture 2008 Comprehensive Tutorial. Gibbs Smith Publishers. US.
- 5. Paul F Aubin (2008). Mastering AutoCAD Architecture. Academy Editions, London.

ENL 151 - COMMUNICATIVE ENGLISH-II

Credits: 02 (L= 2, T=0, U=0)

Total marks-100

Mid Semester Examination: 20% weightage (20 Marks) End Semester Examination: 80% weightage (80 Marks) Duration of Examination: 3 Hours

Objective: To introduce students to the skills and strategies of reading and writing by identifying organizational patterns, spotting classification systems and understanding associations between ideas. This course will prepare students to read a variety of texts and also to communicate more effectively through writing. The course will also pay special attention to vocabulary building.

Instructions for the Paper Setters:-

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

Prescribed Text books:

- The Written Word by Vandana R. Singh, Oxford University Press, NewDelhi.
- Making Connections: A Strategic Approach to Academic Reading by Kenneth J. Pakenham, SecondEdition.

SECTION-A

Practical question on Note Making, Summarizing and Abstracting as given in *The Written Word* by Vandana R. Singh

SECTION-B

Practical question on Paragraph writing as prescribed in *The Written Word* by Vandana R. Singh

SECTION-C

Theoretical questions based on ABC of Good Notes as prescribed in *The Written Word* by Vandana R. Singh.

Section C from *Making Connections: A Strategic Approach to Academic Reading* by Kenneth J. Pakenham, SecondEdition.

SECTION-D

Practical question on Essay writing from *The Written Word* by Vandana R. Singh Section 4 from *Making Connections: A Strategic Approach to Academic Reading* by Kenneth J. Pakenham, SecondEdition.

PBL 131 : ਪੰਜਾਬੀ ਲਾਜ਼ਮੀ – II (Credit Based)

Credits : 2-0-0

Total Marks: 100

Mid Semester Examination: 20% weightage (20 Marks) End Semester Examination: 80% weightage (80 Marks)

Duration of examination: 3 Hours

ਸੈਕਸ਼ਨ-ਏ

- ।. **ਦੋ ਰੰਗ** (ਸੰਪਾ. ਹਰਜਿੰਦਰ ਸਿੰਘ ਢਿੱਲੋਂ, ਪ੍ਰੀਤਮ ਸਿੰਘ ਸਰਗੋਧੀਆ) ਗੁਰੂ ਨਾਨਕ ਦੇਵ ਯੂਨੀਵਰਸਿਟੀ, ਅੰਮ੍ਰਿਤਸਰ ਵਿਚੋਂ ਹੇਠ ਲਿਖੇ ਕਹਾਣੀਕਾਰ :
 - (ੳਂ) ਨਾਨਕ ਸਿੰਘ : ਭੂਆ
 - (ਅ) ਗੁਰਮੁਖ ਸਿੰਘ ਮੁਸਾਫਿਰ : **ਬਾਗੀ ਦੀ ਧੀ**
 - (ੲ) ਸੰਤ ਸਿੰਘ ਸੇਖੋਂ : **ਪੇਮੀ ਦੇ ਨਿਆਣੇ** (ਕਹਾਣੀਕਾਰ ਦਾ ਜੀਵਨ, ਕਹਾਣੀ ਸਾਰ, ਵਿਸ਼ਾ–ਵਸਤੂ, ਕਹਾਣੀ ਕਲਾ)
- ॥. ਪੰਜਾਬੀ ਸ਼ਬਦ ਬਣਤਰ : ਧਾਤੂ∠ਮੂਲ, ਵਧੇਤਰ (ਅਗੇਤਰ, ਪਿਛੇਤਰ, ਵਿਉਂਤਪਤ ਅਤੇ ਰੁਪਾਂਤਰੀ),ਸਮਾਸ।

ਸੈਕਸ਼ਨ-ਬੀ

- ı. **ਦੋ ਰੰਗ** (ਸੰਪਾ. ਹਰਜਿੰਦਰ ਸਿੰਘ ਢਿੱਲੋਂ, ਪ੍ਰੀਤਮ ਸਿੰਘ ਸਰਗੋਧੀਆ) ਗੁਰੂ ਨਾਨਕ ਦੇਵ ਯੂਨੀਵਰਸਿਟੀ, ਅੰਮ੍ਰਿਤਸਰ ਵਿਚੋਂ ਹੇਠ ਲਿਖੇ ਕਹਾਣੀਕਾਰ :
 - (ੳ) ਸਜਾਨ ਸਿੰਘ **ਬਾਗਾਂ ਦਾ ਰਾਖਾ**
 - (ਅ) ਕਰਤਾਰ ਸਿੰਘ ਦੁੱਗਲ : **ਤੈਂ ਕੀ ਦਰਦ ਨਾ ਆਇਆ** (ਕਹਾਣੀਕਾਰ ਦਾ ਜੀਵਨ, ਕਹਾਣੀ ਸਾਰ, ਵਿਸ਼ਾ–ਵਸਤੂ, ਕਹਾਣੀ ਕਲਾ)
- ॥. ਪੈਰ੍ਹਾ ਰਚਨਾ : ਕਲਾਸ ਵਿਚ 10 ਵਿਸ਼ਿਆਂ (ਸਭਿਆਚਾਰ, ਧਾਰਮਕ ਅਤੇ ਰਾਜਨੀਤਕ) 'ਤੇ ਪੈਰ੍ਹਾਰਚਨਾ ਦੇ ਅਭਿਆਸ ਕਰਵਾਉਣੇ।

ਸੈਕਸ਼ਨ-ਸੀ

- ı. **ਦੋ ਰੰਗ** (ਸੰਪਾ. ਹਰਜਿੰਦਰ ਸਿੰਘ ਢਿੱਲੋਂ, ਪ੍ਰੀਤਮ ਸਿੰਘ ਸਰਗੋਧੀਆ) ਗੁਰੂ ਨਾਨਕ ਦੇਵ ਯੂਨੀਵਰਸਿਟੀ, ਅੰਮ੍ਰਿਤਸਰ ਵਿਚੋਂ ਹੇਠ ਲਿਖੇ ਕਹਾਣੀਕਾਰ :
 - (ੳ) ਕਲਵੰਤ ਸਿੰਘ ਵਿਰਕ : **ਧਰਤੀ ਹੇਠਲਾ ਬੋਲਦ**
 - (ਅ) ਨਵਤੇਜ ਸਿੰਘ : **ਦੂਜੀ ਵਾਰ ਜੇਬ ਕੱਟੀ ਗਈ**
 - (ੲ) ਪ੍ਰੇਮ ਪ੍ਰਕਾਸ਼ : **ਲੱਛਮੀ** (ਕਹਾਣੀਕਾਰ ਦਾ ਜੀਵਨ, ਕਹਾਣੀ ਸਾਰ, ਵਿਸ਼ਾ–ਵਸਤੂ, ਕਹਾਣੀ ਕਲਾ)
 - ॥. ਮੁਹਾਵਰੇ ਤੇ ਅਖਾਣ (ਅਖਾਣ ਤੇ ਮੁਹਾਵਰਾ ਕੋਸ਼ ਵਿਚ) 200 ਮੁਹਾਵਰਿਆਂ ਅਤੇ 100 ਅਖਾਣਾਂ ਨੂੰ ਵਾਕਾਂ ਵਿਚ ਵਰਤਣ ਦੇ ਅਭਿਆਸ ਕਰਵਾਉਣੇ (ਕਲਾਸ ਵਿਚ ਤੇ ਘਰ ਲਈ)।

ਸੈਕਸ਼ਨ-ਡੀ

- ı. **ਦੋ ਰੰਗ** (ਸੰਪਾ. ਹਰਜਿੰਦਰ ਸਿੰਘ ਢਿੱਲੋਂ, ਪ੍ਰੀਤਮ ਸਿੰਘ ਸਰਗੋਧੀਆ) ਗੁਰੂ ਨਾਨਕ ਦੇਵ ਯੂਨੀਵਰਸਿਟੀ, ਅੰਮ੍ਰਿਤਸਰ ਵਿਚੋਂ ਹੇਠ ਲਿਖੇ ਕਹਾਣੀਕਾਰ :
 - (ੳ) ਅਜੀਤ ਕੌਰ : **ਬੁੱਤ ਸ਼ਿਕਨ**
 - (ਅ) ਦਲੀਪ ਕੌਰ ਟਿਵਾਣਾ : **ਬੱਸ ਕੰਡਕਟਰ** (ਕਹਾਣੀਕਾਰ ਦਾ ਜੀਵਨ, ਕਹਾਣੀ ਸਾਰ, ਵਿਸ਼ਾ–ਵਸਤੂ, ਕਹਾਣੀ ਕਲਾ)
- ॥. ਸ਼ਬਦ ਸ਼ੇਣੀਆਂ : ਨਾਂਵ, ਪੜਨਾਂਵ, ਵਿਸ਼ੇਸ਼ਣ, ਕਿਰਿਆ, ਕਿਰਿਆ ਵਿਸ਼ੇਸ਼ਣ, ਸੰਬੰਧਕ

ਅੰਕ-ਵੰਡ ਅਤੇ ਪਰੀਖਿਅਕ ਲਈ ਹਦਾਇਤਾਂ

- 1. ਪ੍ਰਸ਼ਨ ਪੱਤਰ ਦੇ ਚਾਰ ਭਾਗ ਹੋਣਗੇ। ਹਰ ਭਾਗ ਵਿਚੋਂ ਦੋ ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣਗੇ।
- 2. ਵਿੰਦਿਆਰਥੀ ਨੇ ਕੁੱਲ ਪੰਜ ਪ੍ਰਸ਼ਨ ਕਰਨੇ ਹਨ। ਹਰ ਭਾਗ ਵਿਚੌਂ ਇਕ ਪ੍ਰਸ਼ਨ ਲਾਜ਼ਮੀ ਹੈ। ਪੰਜਵਾਂ ਪ੍ਰਸ਼ਨ ਕਿਸੇ ਵੀ ਭਾਗ ਵਿਚੌਂ ਕੀਤਾ ਜਾ ਸਕਦਾ ਹੈ।
- 3. ਹਰੇਕ ਪਸ਼ਨ ਦੇ ਬਰਾਬਰ ਅੰਕ ਹਨ।
- 4. ਪੇਪਰ ਸੈੱਟ ਕਰਨ ਵਾਲਾ ਜੇਕਰ ਚਾਹੇ ਤਾਂ ਪ੍ਰਸ਼ਨਾਂ ਦੀ ਵੰਡ ਅੱਗੋਂ ਵੱਧ ਤੋਂ ਵੱਧ ਚਾਰਉਪ-ਪ੍ਰਸ਼ਨਾਂ ਵਿਚ ਕਰ ਸਕਦਾ ਹੈ।

PBL-132:ਮੁੱਢਲੀਪੰਜਾਬੀ

(In lieu of Punjabi Compulsory)

Credits: 2-0-0

Total Marks: 100

Mid Semester Examination: 20% weightage (20 Marks) End Semester Examination: 80% weightage (80 Marks) Duration of examination: 3 Hours

ਪਾਠ-ਕ੍ਰਮ

ਸੈਕਸ਼ਨ-ਏ

ਸਬਦ ਸ਼੍ਰੇਣੀਆਂ : ਪਛਾਣ ਅਤੇ ਵਰਤੋਂ

(ਨਾਂਵ, ਪੜਨਾਂਵ, ਵਿਸ਼ੇਸ਼ਣ, ਕਿਰਿਆ, ਕਿਰਿਆ ਵਿਸ਼ੇਸ਼ਣ)

ਸੈਕਸ਼ਨ-ਬੀ

ਨਿੱਤ ਵਰਤੋਂ ਦੀ ਪੰਜਾਬੀ ਸ਼ਬਦਾਵਲੀ : ਬਾਜ਼ਾਰ, ਵਪਾਰ, ਰਿਸ਼ਤੇ-ਨਾਤੇ, ਖੇਤੀ ਅਤੇ ਹੋਰਧੰਦਿਆਂ ਨਾਲ ਸਬੰਧਤ।

ਸੈਕਸ਼ਨ-ਸੀ

ਪੰਜਾਬੀ ਵਾਕ-ਬਣਤਰ ਸਾਧਾਰਨ-ਵਾਕ (ਪਛਾਣ ਅਤੇ ਵਰਤੋਂ)

ਸੰਯੁਕਤ-ਵਾਕ (ਪਛਾਣ ਅਤੇ ਵਰਤੋਂ)

ਮਿਸ਼ਰਤ-ਵਾਕ (ਪਛਾਣ ਅਤੇ ਵਰਤੋਂ)

ਸੈਕਸ਼ਨ-ਡੀ

ਪੈਰ੍ਹਾ ਰਚਨਾ ਸੰਖੇਪ ਰਚਨਾ

ਅੰਕ-ਵੰਡ ਅਤੇ ਪਰੀਖਿਅਕ ਲਈ ਹਦਾਇਤਾਂ

- 1. ਪ੍ਰਸ਼ਨ ਪੱਤਰ ਦੇ ਚਾਰ ਭਾਗ ਹੋਣਗੇ। ਹਰ ਭਾਗ ਵਿਚੋਂ ਦੋ ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣਗੇ।
- 2. ਵਿਦਿਆਰਥੀ ਨੇ ਕੁੱਲ ਪੰਜ ਪ੍ਰਸ਼ਨ ਕਰਨੇ ਹਨ। ਹਰ ਭਾਗ ਵਿਚੋਂ ਇਕ ਪ੍ਰਸ਼ਨ ਲਾਜ਼ਮੀ ਹੈ।ਪੰਜਵਾਂ ਪ੍ਰਸ਼ਨ ਕਿਸੇ ਵੀ ਭਾਗ ਵਿਚੋਂ ਕੀਤਾ ਜਾ ਸਕਦਾ ਹੈ।
- 3. ਹਰੇਕ ਪ੍ਰਸ਼ਨ ਦੇ ਬਰਾਬਰ ਅੰਕ ਹਨ।
- 4. ਪੇਪਰ ਸੈੱਟ ਕਰਨ ਵਾਲਾ ਜੇਕਰ ਚਾਹੇ ਤਾਂ ਪ੍ਰਸ਼ਨਾਂ ਦੀ ਵੰਡ ਅੱਗੋਂ ਵੱਧ ਤੋਂ ਵੱਧ ਚਾਰ ਉਪ-ਪ੍ਰਸ਼ਨਾਂ ਵਿਚ ਕਰ ਸਕਦਾ ਹੈ।

HSL-102: Punjab History & Culture (1717-1947)
(Special paper in lieu of Punjabi Compulsory)
(For those students who are not domicile of Punjab)

Credits: 2-0-0

Total Marks: 100

Mid Semester Examination: 20% weightage (20 Marks) End Semester Examination: 80% weightage (80 Marks) Duration of examination: 3 Hours

Instructions for the Paper Setters:

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

Section-A

- 1. Sikh Struggle for Sovereignty.
- 2. Ranjit Singh: Conquests, Administration and the Anglo-Sikh Relations.

Section-B

- 3. Anglo-Sikh Wars and the Annexation.
- 4. The Punjab under the British: New Administration, Education and social Change.

Section-C

- 5. Economic Changes: Agricultural
- 6. Socio-Religious Reform Movements.

Section-D

- 7. Role of Punjab in the Freedom Struggle.
- 8. Fairs and Festivals.

- 1. Kirpal Singh (ed.), *History and Culture of the Punjab*, Part-II, Punjabi University, Patiala, 1990.
- 2. Fauja Singh (ed.), *History of Punjab*, Vol, III, Punjabi University, Patiala, 1987.
- 3. J.S. Grewal, The Sikhs of the Punjab, Cup, Cambridge, 1991.
- 4. Khushwant Singh, *A History of the Sikhs*, Vol. I, OUP, New Delhi, 1990

Bachelor of Planning (Urban & Regional) (Semester-II) (2019-20) (Credit Based Evaluation and Grading System) DRUG ABUSE: PROBLEM, MANAGEMENT AND PREVENTION(Compulsory ID Course)

(Student can opt this Paper in 1st or 2nd Semester)

SOA: 101 - PROBLEM OF DRUG ABUSE

Credit 3-0-0

Total Marks: 100

Mid Semester Examination: 20% weightage (20 Marks) End Semester Examination: 80% weightage (80 Marks)

Duration of examination: 3 Hours

Instructions for the Paper Setters:

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

Section - A

Meaning of Drug Abuse:

- 1) Meaning, Nature and Extent of Drug Abuse in India and Punjab.
- 2) Consequences of Drug Abuse for:

Individual : Education, Employment, Income.

Family : Violence. Society : Crime.

Nation : Law and Order problem.

Section - B

Management of Drug Abuse:

- (i) Medical Management: Medication for treatment and to reduce withdrawal effects.
- (ii) Psychiatric Management: Counselling, Behavioural and Cognitive therapy.
- (iii) Social Management: Family, Group therapy and Environmental Intervention.

Section – C

Prevention of Drug abuse:

- (i) Role of family: Parent child relationship, Family support, Supervision, Shaping values, Active Scrutiny.
- (ii) School: Counselling, Teacher as role-model. Parent-teacher-Health Professional Coordination, Random testing on students.

Section – D

Controlling Drug Abuse:

- (i) Media: Restraint on advertisements of drugs, advertisements on bad effects of drugs, Publicity and media, Campaigns against drug abuse, Educational and awareness program
- (ii) Legislation: NDPs act, Statutory warnings, Policing of Borders, Checking Supply/Smuggling of Drugs, Strict enforcement of laws, Time bound trials.

References:

- 1. Ahuja, Ram (2003), Social Problems in India, Rawat Publication, Jaipur.
- 2. Extent, Pattern and Trend of Drug Use in India, Ministry of Social Justice and Empowerment, Government of India, 2004.
- 3. Inciardi, J.A. 1981. The Drug Crime Connection. Beverly Hills: Sage Publications.
- 4. Kapoor. T. (1985) Drug epidemic among Indian Youth, New Delhi: Mittal Pub.
- 5. Kessel, Neil and Henry Walton. 1982, Alcohalism. Harmond Worth: Penguin Books.
- 6. Modi, Ishwar and Modi, Shalini (1997) *Drugs: Addiction and Prevention*, Jaipur: Rawat Publication.
- 7. National Household Survey of Alcohol and Drug abuse. (2003) New Delhi, Clinical Epidemiological Unit, All India Institute of Medical Sciences, 2004.
- 8. Ross Coomber and Others. 2013, *Key Concept in Drugs and Society*. New Delhi: Sage Publications.
- 9. Sain, Bhim 1991, *Drug Addiction Alcoholism*, Smoking obscenity New Delhi: Mittal Publications.
- 10. Sandhu, Ranvinder Singh, 2009, *Drug Addiction in Punjab*: A Sociological Study. Amritsar: Guru Nanak Dev University.
- 11. Singh, Chandra Paul 2000. *Alcohol and Dependence among Industrial Workers*: Delhi: Shipra.
- 12. Sussman, S and Ames, S.L. (2008). *Drug Abuse: Concepts, Prevention and Cessation,* Cambridge University Press.
- 13. Verma, P.S. 2017, "Punjab's Drug Problem: Contours and Characterstics", Economic and Political Weekly, Vol. LII, No. 3, P.P. 40-43.
- 14. World Drug Report 2016, United Nations office of Drug and Crime.
- 15. World Drug Report 2017, United Nations office of Drug and Crime.

GBL 201: PLANNING THEORY

Credits: 03 (L=2, T=1, U=0)

Total Marks: 100

Mid Semester Examination: 20% weightage (20 Marks) End Semester Examination: 80% weightage (80 Marks) Duration of examination: 3 Hours

Instructions for paper-setters:

Eight questions of equal marks (specified in the syllabus) are to be set, two in each of the four sections (A-D). Questions may be subdivided into parts (not exceeding 4). Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any section.

Section A

Definitions of theory in general, Definitions of planning theory, Definition of paradigm and its various stages of development by Kuhn; Significance of planning theory, Espoused theories and theories in use.

Section B

Sustainability and rationality in planning, Components of sustainable urban and regional development, modernism and postmodernism and contributions in planning theory, Comprehensive Rational Planning, Advocacy and pluralistic planning. Collaborative and communicative planning theory.

Section C

Strategic spatial planning, New Urbanism and compact city approach: concept, advantages and limitations; New city terminologies; smart city, harmonious city, happy city, open city, ecological city, network city, edge city.

Section D

Wicked problems in spatial planning, cultural theory approaches, Cosmopolitan planning, race, gender, religion and caste considerations, AmartyaSen and Nussbaum's capability theories and application in planning, feminist planning theory.

Suggested Readings:

- 1. Hall, P. (2002). "Cities of Tomorrow: An Intellectual History of Urban Planning and Design in the 21st Century", Blackwell Publications, Oxford.
- 2. Ward, S. (2002). "Planning the Twentieth Century City", The Advanced Capitalist World, John Wiley & Sons, Chichester.
- 3. Hall, P. (1998). "Cities in Civilization; Culture, Technology and Urban Order", Weidenfield and Nicolson, London.
- 4. Stein, M. J. (1995). "Classic Readings in Urban Planning", McGraw-Hill, New York
- 5. Lynch, K. (1981). "A Theory of Good City Form", Cambridge Publications, London.
- 6. Gallion, A. (1963). "The Urban pattern; City Planning and Design", D.V. Nostrand Company Inc, N.York.

Recommended Journals

- 1. Planning Theory, Sage
- 2. Planning Theory and Practice, Taylor and Francis
- 3. Journal of Planning History, Sage

GBL 203: PLANNING FOR UTILITIES

Credits: 03 (L=2, T=1, U=0)

Total Marks: 100

Mid Semester Examination: 20% weightage (20 Marks) End Semester Examination: 80% weightage (80 Marks) Duration of examination: 3 Hours

Instructions for paper-setters:

Eight questions of equal marks (specified in the syllabus) are to be set, two in each of the four sections (A-D). Questions may be subdivided into parts (not exceeding 4). Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any section.

Section A

Utilities- Definition, terminologies and types; Historical perspectives of utilities; Significance of utilities in urban and regional planning; Sources of water: surface water, ground water, Collection and Conveyance of water; Water treatment processes – Plain Sedimentation, Sedimentation with coagulation, Filtration, Disinfection (excluding the design part).

Section B

Quality of water – types of water impurities and standards of water quality; Quantity of water – types of demand for various uses- Domestic, Industrial, Commercial demand; Pumps, Concept of hydrology, Precipitation, Rain and Snowfall; Drainage system: determination of intensity of rainfall – frequency relationship, run off and runoff losses; factors affecting storm sewage, determination of maximum runoff of a locality

Section C

Definitions of common terms in sanitary engineering-; Systems of sanitation; Methods of collection-Conservancy and water carriage system; Quantity of sanitary sewage, methods of sewage disposal-Dilution, Land Treatment, and treatment processes – Filtration, activated sludge process, Screening and Skimming, Sedimentation, activated sludge process (excluding the design part)

Section D

Quantity of storm sewage; Rain water harvesting; Reuse and recycling of water, recharge of water, desalination plants, Case studies of Kerala and Karnataka in Indian context related to rainwater harvesting; Disposal in un sewered areas - privies, cesspools, septic tanks, Solid waste generation and disposal- methods – sanitary land filling, vermin composting, incineration.

- 1. CPHEEO, (2013). "Manual of Water Supply in Treatment", Ministry of Housing & Urban Development, Government of India
- 2. Punmia, B.C. (2010). "Waste Water Engineering", Laxmi Publications, New Delhi 5. 2010. Mackenzie Davis, "Water and Waste Water Engineering," McGraw Hill education
- 3. Mackenzie Davis, (2010). "Water and Waste Water Engineering," McGraw Hill education
- 4. Birdie, G.S. and Birdie, J.S. (2002). "Water supply and Sanitary Engineering" DhanpatRai Publishers, New Delhi
- 5. CPHEEO, (2000). "Manual of Solid Waste Management System", Ministry of Housing & Urban Development, Government of India
- 6. CPHEEO, (1999). "Manual of Sewage and Sewage Treatment", Ministry of Housing & Urban Development, Government of India.

GBL 204: TECHNIQUES OF PLANNING-II

Credits: 03 (L=2, T=1, U=0)

Total Marks: 100

Mid Semester Examination: 20% weightage (20 Marks) End Semester Examination: 80% weightage (80 Marks)

Duration of examination: 3 Hours

Instructions for paper-setters:

Eight questions of equal marks (specified in the syllabus) are to be set, two in each of the four sections (A-D). Questions may be subdivided into parts (not exceeding 4). Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any section.

Section A

City planning – meaning and significance and process; Contemporary city, its nature and structure; Principles of City planning; Planning approaches – need, importance, objectives, scope of Comprehensive Planning, District plan , Structure Planning, Action Area Planning, Advocacy Planning and Spatial Planning.

Section B

Preparation of plans; Perspective Plan, Master Plan, Development Plan, Zonal Plans, Project Plans/Schemes; Implementation of Plans; organizational, legal and financial aspects; Role of public participation in plan formulation and implementation, Zoning rules and development controls, Norms and standards and building bye-laws,

Section C

Urban structure: concepts of density, Formulation of spatial standards for residential, industrial, commercial and recreational areas, space standards for facility areas, utilities and networks; Population, Distance criteria, Floor area ratio; Floor space index; Site & plot coverage, third dimension, form and pattern of development.

Section D

Site planning defined; Site planning process, site selection – role of environmental, and functional aspects; site analysis, site suitability and usability; site characteristics; Principles and considerations for planning the residential neighborhood planning, commercial, industrial, institutional, transport, recreational Related norms and standards; case studies.

- 1 Ministry of Urban Affairs & Employment (G.O.I.), (2015). Urban Development Plans Formulation and Implementation Guidelines, TCPO, New Delhi.
- 2 Rangwala, S.C. (2005). Town Planning, Charotar Publication House, Anand.
- 3 Hussein Majid (2002). Fundamentals of Physical. Geography, Second Edition, Rawat Publications, New Delhi.
- 4 Rao, Pratap (1985). Urban Theory and Practice, CBS Publication and Distributors, New Delhi.
- 5 Donald, AKruecreberg, (1974). Urban Planning Analysis Methods and Models.
- 6 Keeble, L. (1972). Principles and Practice of Town and Country Planning, The Estate Gazette Ltd, London.
- 7 Gallion and Eismer (1969). The Urban Patterns, Affiliated East–West Pvt. Ltd, New Delhi.

GBL 205: SURVEYING & PHOTOGRAMMETRY

Credits: 03 (L=2, T=1, U=0)

Total Marks: 100

Mid Semester Examination: 20% weightage (20 Marks) End Semester Examination: 80% weightage (80 Marks) Duration of examination: 3 Hours

Instructions for paper-setters:

Eight questions of equal marks (specified in the syllabus) are to be set, two in each of the four sections (A-D). Questions may be subdivided into parts (not exceeding 4). Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any section.

Section A

Surveying – Definition, Types, Plain and Geodetic Surveying, Principal of Surveying, Precision and Accuracy in Surveying. Definition and classification of surveying, Different types and Instruments uses & their functions. Ranging, off–setting, corrections to be applied. Chain & Tape Surveying, Obstacles in chaining; Plane table Surveying: advantages-disadvantages.

Section B

Leveling: Contours—Definition, Interpolation of Contours, Method of contouring, and Use of contours maps in Planning. Use of Total Station. Use of EDM. Role of surveying in Preparation of Digital Data, GPS system and its Applications. Basic concept of Photogrammetry, its applications and categories.

Section C

Aerial Photographs: types, classification, scale. Stereoscopic effect in Aerial Photographs, Application of aerial photographs in urban & regional planning: Map preparation – physiographical analysis, calculation of heights, land use studies, residential densities, networks, areas prone to flooding, encroachments, open spaces, vegetation covers, site selection. (Use of digitations and existing topo-sheets to know change detection).

Section D

Relevance of remote sensing in Planning Satellite Imagery: types, electromagnetic radiation, effects of atmosphere, geometric and radiometric errors; Sensors for imagery: types: resolution, bands, quality; Microwave Remote Sensing and Hyper - Spectral Remote Sensing; Introduction to Image Interpretation, Basic principles, steps in image interpretation; Remote sensing data sources: satellites – types, features, agencies; Image processing, Techniques of enhancements and use of filters, True Colour Composite (TCC), False Colour Composite (FCC)

- 1. Carhart, Daniel, (2009). A Treatise on Plane Surveying, Bibliolife, Charleston.
- 2. Kang Tsung Chang (2006). Introduction to Geographic Information System, TataMcGraw Hill, India.
- 3. Punmia, B.C. (2005). Surveying, Luxmi Publication Pvt. Ltd., New Delhi.
- 4. Duggal, S.K. (2004). Surveying, Tata McGraw-Hill, New Delhi.
- 5. Sokhi, B.S. (1999). Fundamentals of Aerial Photography and Remote Sensing, IIRS2nd Ed., John Wiley & Sons, Singapore.
- 6. Kouchher, C.L. (1998). A Text Book of Surveying, Katson Publishing House, Ludhiana.
- 7. Mahavir (1998). Application of Remote Sensing in Urban and Regional Planning, ITC

- 8. Rangawala, S.C. (1991). Surveying and Leveling, Charotar Publishing House, New Delhi.
- 9. Sharma, J.L. (1988). A Text Book of Surveying, CBS, New Delhi.
- 10. Thomas, M. Lillesand, Ralph, W. Kiefer (1987). Remote Sensing & Image Interpretation, Onward Press.
 - 11.David T. Lindgraw (1985). Landuse Planning in Remote Sensing, Martins Nijhoff, Netherland.

Journals

- 1. ISPRS International Journal of Geo-Information, Elsevier.
- 2. ISPRS journal of photogrammetry and remote sensing, *Elsevier*.
- 3. Remote sensing, MDPI.

GBU 206: RESIDENTIAL SITE PLANNING

Credits: 06 (L=0, T=3 U=6)

Total Marks: 100

Internal Examination: 50 Marks External Examination: 50 Marks

Each student or group thereof is required to prepare a site plan of a residential area. They are required to identify the various components to be provided within the site in the light of "Target Group" and surrounding development analysis. The students are further required to identify characteristics and users of each of such components, their inter-relationships and most appropriate locations.

The students are required to do preliminary site investigation like topography, soil characteristics, slope, physiographic conditions, existing land use and analysis, site suitability for development, site in relation to the city and surrounding land use.

Various aspects to be covered in this exercise are: literature review encompassing definitions, concepts, components, development of objectives, site planning and design considerations, norms and standards; The students are required to collect relevant data and work out requirements for the given site and prepare various plans, i.e., layout plans, circulation plan, utility plan and landscape plan.

The students are expected to show creativity in their layouts while keeping norms and standards, target group, relationship of the site with surroundings and physical constraints in considerations.

"Note: The Students are required to undertake field surveys for data Collection for the said Planning Studio Exercise."

- 1. Ministry of Urban Affairs & Employment (G.O.I.) (2014). Urban & Regional Development Plans Formulation and Implementation Guidelines, ITPI, New Delhi.
- 2. Bauer, Kurt W. (2013). City planning; for civil engineers, environmental engineers and surveyors. CRC Press, Boca Raton.
- 3. Monkhouse and Willinson (1964). Maps and Diagrams, Methuen & Co., London.

GBU 207: GEO-INFORMATICS FOR PLANNING

Credits: 04 (L=0, T=2, U=4)

Total Marks: 100

Internal Examiner: 50 Marks
External Examiner: 50 Marks

The students are required to understand the basic concepts of GIS and to represent geographical features in GIS. Concept of digital maps and its advantages, raster and vector maps, spatial and attributes data, various types of spatial and non-spatial analysis in urban planning using GIS. The students are required to learn about various data input methods in the ArcView of ArcGIS software, which includes geo-referencing, digitization, query building, spatial and non-spatial analysis, and final production of maps using GIS. For the purpose of digitization and data existing data source may be used. Exercises undertaken by the students will be submitted in the form of soft copy of problems, hard copy of some problems, and reports / assignments.

- 1. ESRI (2015). ESRI MAP Book 2015. ESRI Press California.
- 2. Roger, F. (2009). Tomlinson Thinking about GIS: Geographic Information System Planning for Managers, ESRI Press California.
- 3. Martin P. Ralphs, Peter Wyatt (2003).GIS in Land and Property Management. SPON Press. New York
- 4. Said Easa, Yupo Chan (2000). Urban Planning and Development Applications of GIS. American Society of Civil Engineers.

ESL 220 ENVIRONMENTAL STUDIES (COMPULSORY PAPER) (Compulsory)

Time: 3 Hrs. **Credits: 4-0-0**

Teaching Methodologies

The Core Module Syllabus for Environmental Studies includes class room teaching and field work. The syllabus is divided into 8 Units [Unit-1 to Unit-VII] covering 45 lectures + 5 hours for field work [Unit-VIII]. The first 7 Units will cover 45 lectures which are class room based to enhance knowledge skills and attitude to environment. Unit-VIII comprises of 5 hours field work to be submitted by each candidate to the Teacher in-charge for evaluation latest by 15 December, 2019.

Exam Pattern: End Semester Examination-75 marks

Project Report/Field Study- 25 marks [based on submitted report]

Total Marks- 100

The structure of the question paper being:

Part-A, Short answer pattern with inbuilt choice – 25 marks

Attempt any five questions out of seven distributed equally from Unit-1 to Unit-VII.

Each question carries 5 marks. Answer to each question should not exceed 2 pages.

Part-B, Essay type with inbuilt choice – 50 marks

Attempt any five questions out of eight distributed equally from Unit-1 to Unit-VII. Each question carries 10 marks. Answer to each question should not exceed 5 pages.

Project Report / Internal Assessment:

Part-C, Field work – 25 marks [Field work equal to 5 lecture hours]

The candidate will submit a hand written field work report showing photographs, sketches, observations, perspective of any topic related to Environment or Ecosystem. The exhaustive list for project report/area of study are given just for reference:

- 1. Visit to a local area to document environmental assets: River / Forest/ Grassland / Hill / Mountain / Water body / Pond / Lake / Solid Waste Disposal / Water Treatment Plant / Wastewater Treatment Facility etc.
- Visit to a local polluted site Urban / Rural / Industrial / Agricultural
 Study of common plants, insects, birds
- 4. Study of tree in your areas with their botanical names and soil types
- Study of birds and their nesting habits
- 6. Study of local pond in terms of wastewater inflow and water quality
- 7. Study of industrial units in your area. Name of industry, type of industry, Size (Large, Medium or small scale)

- 8. Study of common disease in the village and basic data from community health centre
 9. Adopt any five young plants and photograph its growth
 10. Analyze the Total dissolved solids of ground water samples in your area.
 11. Study of Particulate Matter (PM_{2.5} or PM₁₀) data from Sameer website. Download from Play
- 12. Perspective on any field on Environmental Studies with secondary data taken from Central Pollution Control Board, State Pollution Control Board, State Science & Technology Council

Unit-I The multidisciplinary nature of environmental studies Definition, scope and importance, Need for public awareness

(2 lectures)

Unit-II

- Natural Resources: Renewable and non-renewable resources:

 Natural resources and associated problems.

 (a) Forest resources: Use and over-exploitation, deforestation, case studies. Timber extraction, mining, dams and their effects on forests and tribal people.

 (b) Water resources: Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dams-benefits and problems.

 (c) Mineral resources: Use and exploitation, environmental effects of extracting and using mineral resources, case studies.

 (d) Food resources: World food problems, changes caused by agriculture and overgrazing, effects of modern agriculture, fertilizer-pesticide problems, water logging, salinity, case studies.
- Energy resources: Growing energy needs, renewable and non-renewable energy sources, use of alternate energy sources, case studies.

 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.

(8 Lectures)

Unit-III

Ecosystems

- Concept of an ecosystem
 Structure and function of an ecosystem
- Producers, consumers and decomposers
- Energy flow in the ecosystem Ecological succession
- Food chains, food webs and ecological pyramids
- Introduction, types, characteristic features, structure and function of the following ecosystem: Forest ecosystem, Grassland ecosystem, Desert ecosystem, Aquatic ecosystems (ponds, streams, lakes, rivers, ocean estuaries) (6 Lectures)

Unit-IV

Biodiversity and its conservation

- Introduction Definition: genetic, species and ecosystem diversity Biogeographical classification of India
- Value of biodiversity: consumptive use, productive use, social, ethical aesthetic and option values

- Biodiversity at global, national and local levels
 India as a mega-diversity nation
 Hot-spots of biodiversity
 Threats to biodiversity: habitat loss, poaching of wildlife, man wildlife conflicts
 Endangered and endemic species of India
 Conservation of biodiversity: In-situ and Ex-situ conservation of biodiversity

(8 Lectures)

Unit-V

Environmental Pollution

Definition

- Causes, effects and control measures of Air pollution, Water pollution, Soil pollution, Marine pollution, Noise pollution, Thermal pollution, Nuclear pollution Solid waste management: Causes, effects and control measures of urban and industrial wastes.
- Role of an individual in prevention of pollution
- Pollution case studies
- Disaster management: floods, earthquake, cyclone and landslides

(8 Lectures)

Unit-VI

Social Issues and the Environment

- From unsustainable to sustainable development
- Urban problems and related to energy

- Water conservation, rain water harvesting, watershed management
 Resettlement and rehabilitation of people; its problems and concerns. Case studies.
 Environmental ethics: Issues and possible solutions
 Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust. Case studies.
 Westeland malarmeters
- Wasteland reclamation

- Consumerism and waste products
 Environmental Protection Act, 1986
 Air (Prevention and Control of Pollution) Act, 1981
- Water (Prevention and control of Pollution) Act, 1974
- Wildlife Protection Act
- Forest Conservation Act
- Issues involved in enforcement of environmental legislation
- (7 Lectures) Public awareness

Unit-VII

Human Population and the Environment

- Population growth, variation among nations Population explosion Family Welfare Programmes Environment and human health

- Human Rights Value Education HIV / AIDS
- Women and Child Welfare
- Role of Information Technology in Environment and Human Health
- Case Studies (6 Lectures)

Unit-VIII

Field Work

- Visit to a local area to document environmental assets river/forest/grassland/hill/mountain
- Visit to a local polluted site Urban / Rural / Industrial / Agricultural Study of common plants, insects, birds
- Study of simple ecosystems-pond, river, hill slopes, etc

(Field work equal to 5 lecture hours)

References:-

- 1. Bharucha, E. 2005. Textbook of Environmental Studies, Universities Press, Hyderabad.
- 2. Down to Earth, Centre for Science and Environment, New Delhi.
- 3. Heywood, V.H. &Waston, R.T. 1995. Global Biodiversity Assessment, Cambridge House, Delhi.
- 4. Joseph, K. &Nagendran, R. 2004. Essentials of Environmental Studies, Pearson Education (Singapore) Pte. Ltd., Delhi.
- 5. Kaushik, A. & Kaushik, C.P. 2004. Perspective in Environmental Studies, New Age International (P) Ltd, New Delhi.
- 6. Rajagopalan, R. 2011. Environmental Studies from Crisis to Cure. Oxford University Press, New Delhi.
- 7. Sharma, J. P., Sharma. N.K. &Yadav, N.S. 2005. Comprehensive Environmental Studies, Laxmi Publications, New Delhi.
- 8. Sharma, P. D. 2009. Ecology and Environment, Rastogi Publications, Meerut.
- 9. State of India's Environment 2018 by Centre for Sciences and Environment, New Delhi
- Subramanian, V. 2002. A Text Book in Environmental Sciences, Narosa Publishing House, New Delhi.

GBL 251: REAL ESTATE

Credits: 03 (L=2, T=1, U=0)

Total Marks: 100

Mid Semester Examination: 20% weightage (20 Marks) End Semester Examination: 80% weightage (80 Marks) Duration of examination: 3 Hours

Instructions for paper-setters:

Eight questions of equal marks (specified in the syllabus) are to be set, two in each of the four sections (A-D). Questions may be subdivided into parts (not exceeding 4). Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any section.

Section A

Definition of real estate and its importance in urban and regional planning; Characteristics of real estate; Freehold; Leasehold; Forms of lease; Contract law;

Section B

Pricing, transaction; Land taxation—need, importance and objectives, issues; Land record and information system – definition, functions of Land Information System and issues. Land acquisition – basic principles, procedures to acquire the land.

Section C

Urban land ceiling and regulations – its provisions; Land pooling – definition, its importance, benefits of land pooling, stages of carrying land pooling projects. Role of public&private sector and factors effecting Land value, land speculation

Section D

Trade off and environment preference model; Effects of planning- legal, financial and administrative measures on land value; betterment and worsenment; Urban land policy- its contents, objectives, instruments for its implementation; Task force on housing and urban development – issues and recommendations.

- 1. Arnott, Richard J, and Daniel P. McMillen (Ed.) (2008). "A companion to Urban Economics", Blackwell Publishing, U.K.
- 2. Mcdonald, John and DanialMcMillen (2006). "Urban Economics and Real Estate: Theory and Policy", Blackwell Publishing, U.K.
- 3. Rateliffe, John, Micheal Stubbs and Mark Shepherd (2001). "*Urban Planning and Development (Natural and Built Environment)*", Spon Press, New York.
- 4. Ralicuff, Darlodwen (1992). "Land Economics", Michigan Publishers, New York.
- 5. Alan, E.W. (1985). "Urban Economics An Introduction", Blackwell Publication, New York.
- 6. Lean, W. (1982). "Aspects of Landuse Planning", Gonthic Publications, New Fersy
- 7. Raleich, Barlowe (1980). "Land Resource Economics", Prentice Hall Publication, NewJersy.
- 8. Paul, B. N. (1977). "Urban Land Economics", The McMillan Press, London.
- 9. Report of the Committee of Urban Land Policy (1965). Ministry of Health, Govt. of India.

GBL 252: TRANSPORTATION PLANNING - I

Credits: 03 (L=2, T=1, U=0)

Total Marks: 100

Mid Semester Examination: 20% weightage (20 Marks) End Semester Examination: 80% weightage (80 Marks) Duration of examination: 3 Hours

Instructions for paper-setters:

Eight questions of equal marks (specified in the syllabus) are to be set, two in each of the four sections (A-D). Questions may be subdivided into parts (not exceeding 4). Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any section.

Section A

Meaning, scope and objectives of transportation planning and its importance in urban and regional planning; Integration of components of transportation; Traffic and travel characteristics; Relationship between traffic volume, concentration and speed; Significance of road user's behavior and vehicular characteristics in planning and designing of roads; Hierarchy of roads – regional and urban.

Section B

Concept, definition and factors affecting the highway capacity, level of service, static & dynamic PCU, design service volume, capacity norms; IRC codes and highway capacity manuals; Highway design capacity and level of service of roads and intersections; Cross sectional and longitudinal elements of urban roads - right of way, carriageway, median, service lane, footpath, curb, camber, side slope, service road, horizontal curves, vertical curves, super elevation, sight distance, access control.

Section C

Intersections – types, design principles, alignment and vertical profile, visibility, radii of curves, channelization; Roundabouts - capacity and design; Grade separated intersection design elements- ramp gradient, acceleration and deceleration lanes, weaving sections; Capacity of signalized intersection; Types and design street lightings, guard rails; Road landscape design features.

Section D

Traffic signs and marking – types, principles, design standards, location, height, maintenance, material and color; traffic signals, warrant for signals, phasing and inter green period, saturation flow, optimization of signals, Vehicle actuated signal facilities, co-ordination of traffic signal, area traffic control system; Basic principles of regulation and its enforcement; Parking – types, designs, norms and planning considerations; Planning consideration, norms and designs of bus and truck terminals.

- 1. Pande, Anurag and Brian Wolshon, (2016). "Traffic Engineering Handbook", Seventh Edition, Institute of Transportation Engineers, New Delhi.
- 2. Slinn Mike, Paul Matthews and Peter Guest, (2015). "Traffic Engineering Design Principles and Practice", Elsevier Butterworth-Heinemann, Burlington, MA.
- 3. Hutton, Barry,(2013). "Planning Sustainable Transport", Routledge, Taylor & Francis BooksIndia Pvt Ltd., New Delhi.
- 4. Highway Capacity Manual, (2010). "Transportation Research Board", National Research Council, USA.
- 5. O'Flaherty, C.A. (ed.),(2006). "Transport Planning and Traffic Engineering", Elsevier, USA.
- 6. Banks, James H., (2002). "Introduction to Transportation Engineering", McGraw-Hill, Boston.
- 7. Khisty, C.J. and Lall, B.K. (2002). "Transportation Engineering An Introduction", Prentice Hallof India Pvt. Ltd., New Delhi.
- 8. Papacostas, C.S. and Prevedouros, P.D.(2001). "Transportation Engineering and Planning", Prentice-Hall, New York.
- 9. Highway Capacity Manual, (2000). "Transportation Research Board", National Research Council, USA.
- 10. James L. Pline. (ed.), (1999). "Traffic Engineering Handbook", Fifth Edition, Institute of Transportation Engineers, USA.
- 11. IRC: 106, (1990). "Guidelines for Capacity of Urban Roads in Plain Areas", Indian Road Congress. New Delhi.
- 12. IRC: 92, (1985). "Guidelines for the Design of Interchanges in Urban Areas", Indian Road Congress. New Delhi.
- 13. IRC: 93, (1985). "Guidelines on Design and Installation of Road Traffic Signals", Indian Road Congress. New Delhi.
- 14. IRC: 86, (1983). "Geometric Design Standards for Urban Roads in Plains", Indian Road Congress. New Delhi.
- 15. IRC: 69,(1977). "Space Standards for Roads in Urban Areas", Indian Road Congress. New Delhi.
- 16. IRC: 65, (1976). "Recommended Practice for Traffic Rotaries", Indian Road Congress, New Delhi.
- 17. IRC: SP: 12, (1973). "Tentative Recommendations on the Provision of Parking Spaces for Urban Areas", Indian Road Congress, New Delhi.

GBU 254: TRANSPORTATION PLAN

Credits: 04 (L=0, T=2, U=4)

Total Marks: 100

Internal Examination: 50 Marks External Examination: 50 Marks

Surveys relating to transportation aspects will be carried out: traffic volume survey, speed and delay studies, parking studies, pedestrian studies, road geometrics and road components, rotaries and signalised intersections.

Analysis of the data and presentation of the same through scale drawings and written documents; design of road sections, road junctions and rotaries. Preparation of area traffic circulation plan by studying the existing land use, existing circulation pattern, geometric design, and level of services provided by the networks and traffic management measures.

"Note: The Students are required to undertake field surveys for data Collection for the said Planning Studio Exercise."

- 1. Kadiyali, L.R. (2014). Traffic Engineering and Transport Planning. Khanna Publishers. New Delhi.
- 2. James H. (2002). Banks. Introduction to Transportation Engineering. McGraw-Hill. Boston.
- 3. Khisty, C.J. and Lall, B.K. (2002). Transportation Engineering An Introduction. Prentice Hall of India Pvt. Ltd.
- 4. PapacostasC.S. and Prevedouros, P.D. (2001). Transportation Engineering and Planning. Prentice-Hall. New York.
- 5. IRC:106. Guidelines for Capacity of Urban Roads in Plain Areas (1990). Indian Road Congress. New Delhi.
- 6. IRC:93. Guidelines on Design and Installation of Road Traffic Signals (1985). Indian Road Congress. New Delhi.
- 7. IRC:92. Guidelines for the Design of Interchanges in Urban Areas (1985). Indian Road Congress. New Delhi.
- 8. IRC:86. Geometric Design Standards for Urban Roads in Plains (1983). Indian Road Congress. New Delhi.
- 9. IRC:69. Space Standards for Roads in Urban Areas (1977). Indian Road Congress. New Delhi
- 10. IRC:65. Recommended Practice for Traffic Rotaries (1976). Indian Road Congress. New Delhi.
- 11. IRC:SP:12. Tentative Recommendations on the Provision of Parking Spaces for Urban Areas (1973). Indian Road Congress. New Delhi.

GBU 255: STUDY OF TOWN

Credits: 07 (L=0, T=3, U=8)

Total Marls: 100

Internal Examination: 50 Marks External Examination: 50 Marks

Students shall be required to undertake the study of an urban area for purposes of preparing its Master Plan/development plan. This exercise therefore offers an opportunity to the students for learning the processes involved in the collection and analysis of data at the town level comprehensively. The study thus involves the collection and analysis of data regarding each and every aspect related with the establishment, nature & status and functioning of the town including historical evolution, regional setting, landuse, physical setting, socio-economic infrastructure, energy & environment, housing, tourism, urban design, heritage, legal, administrative & financial aspects.

The study so conducted shall be submitted in form of a detailed report illustrated with suitable maps, charts, sketches, photographs. underlining the major issues related with the planned growth and development of the town.

"Note: The Students are required to undertake field surveys for data Collection for the said Planning Studio Exercise."

Suggested Readings

- 1. SomikLall (2013). Planning, connecting and financing cities, World Bank, Washington DC.
- 2. Helms,G (2012). Towards safe city centres: remaking the spaces of an old industrial city, Ashgate, Aldershot.
- 3. Campbell. T. (2012). Beyond smart cities: how cities network, learn and innovate, Earthscan, N.York.
- 4. Venugopal, R.A. (2010). State of Urban services in Indian cities, Oxford University Press, N delhi
- 5. Latham, A. (2009). Key concepts in Urban Geography, Sage, London.

Recommended Journals

- 1. Spatio-Economic Development Record
- 2. ITPI Journal, ITPI
- 3. Cities, Elsevier
- 4. Third World Planning Review, Liverpool University Press
- 5. Journal of Urban Studies, Sage.

GBL 256: SPECIFICATIONS, ESTIMATION AND VALUATION (Elective-I)

Credits: 03 (L=2, T=1, U=0)

Total Marks: 100

Mid Semester Examination: 20% weightage (20 Marks) End Semester Examination: 80% weightage (80 Marks)

Duration of examination: 3 Hours

Instructions for paper-setters:

Eight questions of equal marks (specified in the syllabus) are to be set, two in each of the four sections (A-D). Questions may be subdivided into parts (not exceeding 4). Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any section.

Section A

Definition, Scope and Importance of Estimation, Units, Method of Estimating, Items of Work in a Building, Units of Measurements and Payments for Various Items of Work, Methods of Building Estimate, Building Estimate Problems for one or two Room Buildings,

Section B

Types of Estimates: Preliminary, Plinth Area, Cube Rate, Approximate Quantity, Detailed, Revised, Supplementary, Repair/Maintenance Estimates; Contingencies, Administrative Approval, Quantity Survey, Concept of Analysis of Rates, Overhead Cost, Task Out-Turn, Labour Requirement, Problems of Analysis of Rates.

Section C

Specifications: Concepts, General vs. Detailed Specifications, Specifications for Earthwork, Brickwork in Wall, Cement Concrete, RCC, Cement Concrete Floor, White Washing, Water Supply Network, Sewerage Network, Horticulture/Landscaping, Roads

Section D

Concept of Value and Valuation, Purpose of Valuation, Income vs. Expenditure, Various Types of Values of a Building: Scrap Value, Salvage Value, Market Value, Book Value, Rateable Value, Capitalized Value, Year's Purchase, Annuity, Sinking Fund, Depreciation, Obsolescence, Methods of Valuation of a Building, Fixation of Rent, Principles of Residential Building Planning: Orientation, Ventilation, Design, Arrangement of Space.

- 1. Dutta, B.N., (2016). Estimating and Costing in Civil Engineering, UBS Publishers' Distributors Ltd., New Delhi.
- 2. Birdie, G.S. and Birdie, J.S. (2010). Water Supply and Sanitary Engineering, DhanpatRaiPublishing Company, New Delhi.
- 3. Singh, Gurcharan and Singh, Jagdish, (2004). Estimating, Costing & Valuation, Standard Publishers, Delhi.
- 4. Kshirsagar, R.S. (2004). Sewerage and Sewerage Treatment Plant, A.K. Publications, New Delhi.
- 5. Punmia, B.C., (1993). Building Construction, Laxmi Publications Pvt. Ltd, New Delhi.
- 6. Hanburg, William J. (1976). Estimating Building Construction; Quantity Surveying, Englewood Cliffs, Prentice Hall, U.K.
- 7. Public Works Department, (1987). Common Schedule of Rate, Government of Punjab Amendments made in 2008.

GBL 257: MUNICIPAL SERVICES MANAGEMENT (Elective-I)

Credits: 03 (L=2, T=1, U=0)

Total Marks: 100

Mid Semester Examination: 20% weightage (20 Marks) End Semester Examination: 80% weightage (80 Marks)

Duration of examination: 3 Hours

Instructions for paper-setters:

Eight questions of equal marks (specified in the syllabus) are to be set, two in each of the four sections (A-D). Questions may be subdivided into parts (not exceeding 4). Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any section.

Section A

Defining Urban growth, Inter relationship between urban growth and Municipal management, Municipal Management definition – Administrative framework –Present scenario of various services and their management in Urban Local Bodies – Current practices and deficiencies in water supply, Solid waste management, Sewerage.

Section B

Various organizational structure of various departments like Public Works Department, water supply and sewerage board, PHE. Case studies of India and Punjab.Institutional aspects - Governmental organization - Central and State governmental agencies - Non-governmental organization and their role in providing or assisting municipal services - NGOs - CBOs - concepts - scope - methods and application in various municipal services

Section C

Joint venture of Community and ULBs – Role of rag pickers – Public awareness, stakeholders consultation in various municipal services management, Role of private organizations in Municipal Services Management.PPP in various sectors of Municipal services management, Types of contracts – EPC, BOT, BOOT, DBOT, LDOT.

Section D

Financial aspects -Financing of water supply, role of world bank, JICA in providing water supply and sewerage projects, International assistance in sewerage and SWM projects – assessment of finance – Financial support of Central, State government and other financial institutions – Pricing of Municipal services – Cost recovery framework – SWM project evaluation techniques

- 1. Alexander Henderson, (2014). Municipal Shared Services and Consolidation: A Public Solutions Handbook (The Public Solutions Handbook Series), Routledge
- 2. K Aswathaappa, (2007). Human Resource Management, Mc Graw Hill company, Third edition
- 3. Annevelise Venter (2007). Municipal Management: Serving the people, Juta and company Ltd.
- 4. Rajeev Narayan, (2006). Human Resources Development in Urban Administration, Serials publication, New Delhi
- 5. D.L. Craythorne, (2006). Municipal Administration Handbook, Juta and Company Ltd.
- 6. ArchanaGhose, (2003). Urban Environment Management. Local government and community action, Concept publishing company, New Delhi..

GBL 258: SOCIOLOGY OF SETTELEMENTS (Elective-2)

Credits: 03 (L=2, T=1, U=0)

Total Marks: 100

Mid Semester Examination: 20% weightage (20 Marks) End Semester Examination: 80% weightage (80 Marks)

Duration of examination: 3 Hours

Instructions for paper-setters:

Eight questions of equal marks (specified in the syllabus) are to be set, two in each of the four sections (A-D). Questions may be subdivided into parts (not exceeding 4). Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any section.

Section A

Introduction to Sociology, Man and environment relationships; society and individual, family, socialization, culture, Norms and Values, status and Role. Social stratification, Race, Ethnicity, Gender, Caste, Class, Religion, Deviance, Social Control and Social Change. Nature and types of Societies-Tribal, Agrarian, Industrial and Post Industrial, Socio-cultural profile of Indian society and urban transformation:

Section B

Theories of Urbanization, Urbanization in India: Urban Rural Migration, Settlement Pattern of Rural and Urban People, Tradition and modernity in the context of urban and rural settlements; Rural-Urban Continuum.Urban and Rural social transformation and their impact on social life, safety & security. Marginalization and concepts of inclusive planning, Gender and sex; Gender Sensitivity; Gender and spatial planning,

Section C

Urbanism, Urban Culture and Urban society Models, Traditional Models of Urban Spatial Structure-Concentric Zone, Sector and Multiple Nuclei Theories; Urban Problems: Poverty, Unemployment, Crime, Juvenile Delinquency, Prostitution, Alcoholism and Drug Addiction, Suicide, Beggary. Social Area Analysis, Gentrification, Suburbanization Race, Caste and Spatial Segregation, Inequality and Polarization

Section D

Image of the City, Mental Maps, The Public Realm, Social structure and spatial planning; Role of sociocultural aspects on growth patterns of city and neighborhood communities, Displacement, resettlement and rehabilitation; Social problems of slums and squatters communities;

References

- 1 Sociology: Understanding and Changing the Social World (2011), Comprehensive Edition.
- 2 H.K.Rawat, Sociology (2010). Basic Concepts, Rawat Publications.
- 3 Randy Charles Enping (2001), Beginners Guide to the world economy, Knopf DoubledayPublishing Group.
- 4 Theodorson, G.A. (ed), (1982), Urban Patterns, Studies in Human Ecology, University Press
- 5 A.R.Desai, ed.(1978) Rural Sociology in India, Popular Prakashani, Bombay
- 6 Charon Joel M. (Ed.) (1999) The Meaning Of Sociology A Reader PrenticeHall, New Jersey
- 7 Bhattacharya B. (2006) Urban Development In India Since Pre-Historic Times Concept Publishing New Delhi.
- 8 Chopra Girish (2006) Urban Geography Common wealth Publishers New Delhi

Websites

 $\underline{\text{http://nchse.org/articlepdf/2015/The\%20National\%20Commission\%20On\%20Urbanisati}} on\%20 and\%20 Its\%20 Preasent\%20 Day\%20 Relevance.pdf$

GBL 259: SUSTAINABLE URBAN DEVELOPMENT (Elective-2)

Credits: 03 (L=2, T=1, U=0)

Total Marks: 100

Mid Semester Examination: 20% weightage (20 Marks) End Semester Examination: 80% weightage (80 Marks) Duration of examination: 3 Hours

<u>Instructions for paper-setters:</u> Eight questions of equal marks (specified in the syllabus) are to be set, two in each of the four sections (A-D). Questions may be subdivided into parts (not exceeding 4). Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any section.

Section A

Changing perspectives in man-environment relationship with focus on issues of population, Urbanization, resource depletion and pollution; limits to growth vis-a-vis sustainable economy; growth and environmental imperatives of developing vs. developed countries;

Section B

Definitions, concepts and parameters in sustainable development with particular reference to Brundtland Commission, Agenda 21, Eco-City approach, Application of ecological principles in sustainability: energy and resource cycles, food webs, ecological pyramids and evolution and succession of natural ecosystems;

Section C

Carrying Capacity based planning: concept, parameters and indicator measures, models and case studies in urban and regional development; Environmental Impact and Strategic Environmental Assessment for urban areas; Ecological Footprint Analysis of cities; Sustainable Lifestyle Assessment and behavioral modifications at household levels,

Section D

Urban interference in hydrological cycle, with particular reference to water pollution, water resources, drainage and natural ecosystems; urban water treatment, recycling, reuse of water and rain water harvesting; use of non-conventional energy sources in urban development such as biomass, biogas, wind energy and solar energy; sustainable city concepts like low carbon city, zero waste. Example of some sustainable cities across the globe and India

- 1 Bharucha, E. (2005). Textbook of Environmental Studies, Universities Press, Hyderabad.
- 2 Kaushik, A. &Kaushik, C. P. (2004). Perspective in Environmental Studies, New Age International (P) Ltd, New Delhi.
- 3 Bharucha, E. (2004). The Biodiversity of India, Mapin Publishing Pvt. Ltd. Ahmedabad.
- 4 Agarwal, K. C. (2001). Environmental Biology, Nidhi Publications Ltd. Bikaner.
- 5 Cunningham, W.P., Cooper, T.H., Gorhani, E. & Hepworth, M. T. (2001). Environmental Encyclopedia, Jaico Publications House, Mumbai.
- 6 Down to Earth, Centre for Science and Environment, New Delhi.
- Hawkins, R. E. (2000). Encyclopedia of Indian Natural History, Bombay Natural History Society.
- 8 Heywood, V. H and Waston, R. T. (1995). Global Biodiversity Assessment, Cambridge House, Delhi.

GBL 301: TRANSPORTATION PLANNING-II

Credits: 03 (L=2, T=1, U=0)

Importance of transport development in economic, political and social development; Transportation and land use integration; Distance-density-opportunity relationships; Influence of land use on mobility and accessibility; Urban transport problems with reference to residential, commercial, industrial, institutional and recreational land uses; Trip generation, distribution and assignment modeling; Transportation planning process- stages and surveys; Traffic surveys - volume count, origin-destination, speed and delay, parking and accidents surveys - their need, design of proforma, methods of conducting surveys, analysis, presentation and interpretation.

Meaning, scope and objectives of Comprehensive Traffic and Transportation Plan, Transport System Management Plan and City Mobility Plan; Urban transport system and urban structure; Characteristics of multi model transport system including bus service, LRTS, MRTS and NMTS; City size and sustainable transport options. Transport systems — meaning, types characteristics; Road, Rail, Air, Water; Urban transport policy-objectives and provisions. Urban transport systems—meaning, types and pre-requisites.

Regional transport and spatial planning & development; Objectives and provisions for transportation in National Five Year Plans with special focus on 11th Five Year Plan. Transportation planning policies and guidelines for vulnerable - pedestrians, cyclists and handicaps; Road safety and transport environment – issues and guidelines; Organizational mechanism for transportation; Public private partnership in transportation- concept, guidelines and options; Motor Vehicle Act 1988; Road Safety Bill 2015.

- 1. Road Safety Bill (2016). Ministry of Road Transport & Highways, Govt. of India, New Delhi.
- 2. Sarkar Prabir Kumar, Maitri Vinay and Joshi G.J., (2015). "Transportation Planning: Principles, Practices and Policies", Prentice-Hall of India Pvt.Ltd., New Delhi
- 3. Kadiyali, L.R. (2014). "Traffic Engineering and Transport Planning", Khanna Publishers, New Delhi.
- 4. Baluja, Rohit, (2010). "Road Traffic Legislation", Institute of Road Traffic Education, NewDelhi.
- 5. Urban Transport Policy (2006). Ministry of Road Transport and Highways, Govt. of India, New Delhi.
- 6. Arasan, V, Thamizh, (2004). "Transportation Systems Planning and Operation", Allied Publishers Pvt. Ltd., Chennai.
- 7. Kanda, Arun and Others (2002). "Transportation Systems: Status and Directions", Phoenix Publishing House Pvt. Ltd., New Delhi.
- 8. IRC, (2001). "Guidelines on Low-cost Traffic Management Techniques for Urban Areas", Indian Roads Congress, New Delhi.
- 9. Indian Journal of Transport Management, CIRT, Pune.
- 10. Indian Highways (Journals), Indian Road Congress, New Delhi.
- 11. Motor Vehicle Act, 1988. Ministry of Road Transport and Highways, Govt. of India, New Delhi.
- 12. Road Development Plan Vision: 2021. Ministry of Road Transport & Highways, Govt. of India, New Delhi.

GBL 302: PLANNING LEGISLATION

Credits: 03 (L=2, T=1, U=0)

Concept of Law; Definition of Law & Legislation, ordinance, bill, act, regulations and bye-laws; significance of law and its relationship to planning; Source of law; Legislative competence of State and Central legislatures; Concept of eminent domain, Arbitration; Property rights relating to ownership and use of land under the Constitution; Planning Legislation: meaning, significance and evolution of planning legislation in India.

Development controls including zoning regulations, sub-division regulations, building bye-laws and periphery controls; Introduction, scope and relevance of various laws and acts relevant to planning such as Model Town and Country Planning Act, The Punjab Regional and Town Planning and Development Act, The Punjab Municipal Corporation Act, The Punjab Town Improvement Act, The Punjab New Capital (Periphery) Control Act, The Punjab Apartment Property Regulation Act,

73rd and 74th Constitution Amendment Acts; Introduction to Land Acquisition Act, Historical background, need, advantages, limitations; Relevance in today's context; Environment Legislation: objectives and contents of acts concerning with pollution of water and air, protection of environment, protection of forests, Coastal Regulation Zone; Case studies highlighting nature of contention, parties in dispute and the decisions in specific planning dispute.

- 1. Ministry of Law and Justice, Govt. of India, (2015). 'The Constitution of India', New Delhi.
- 2. Mott. Macdonald (2014). 'Urban and Regional Development Plans Formulation and Implementation (URDPFI) Guidelines', MoUD, New Delhi.
- 3. The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013
- 4. Kulshrestha, S. K. (2012). *Urban and Regional Planning in India: A Handbook for Professional Practice*, Saga Publications, New Delhi.
- 5. Naseem, Mohammad (2011). *Environmental Law in India*, Kluwer Law International, Netherlands
- 6. Chawla, B.S. (2009). 'Punjab Urban Development Acts and Rules', Chawla Publication Pvt. Ltd., Chandigarh.
- 7. Chawla, B. S. (2008). *The Punjab Municipal Corportaion Act, 1976.* Chandigarh: Chawla Publications (P) Ltd.
- 8. Shastri, S. (2008). Environmental Law. New Delhi: Eastern Book company.
- 9. Jaiswal P.S & Jaswal N. (2003) 'Environmental Law–Environmental Protection, Sustainable Development and the Law', Pioneer Publication, Delhi.
- 10. Sharma S.P. (1991). 'India Legal System', Mittal Publications, New Delhi.
- 11. Biswas, A.R. (1982). Encyclopedic Law Dictionary, Eastern Law House, Calcutta.

GBL 303: HOUSING AND COMMUNITY DEVELOPMENT

Credits: 03 (L=2, T=1, U=0)

Housing: definition and subject matter; Importance of housing in National Development Goals; Housing as a basic requirement, Introduction to concepts of Housing Shortage, Housing Need, quantitative and qualitative aspects of housing; Housing demand –Understanding methods of demand assessment and their limitations; Typologies of Housing; Knowledge of data sources and their use and interpretation; census, NSSO and other data;

Determinants of housing; income and affordability, Slums causes and issues; socio-economic implication of slums, clearance/ improvement of slum; sites and services schemes, squatter upgrading, incremental approach; Approaches to neighborhood living/design in traditional and contemporary societies; concepts and elements of neighborhood structure; housing and area planning standards

Low cost housing- alternative low cost eco-friendly construction material; and low cost construction techniques; Role of Housing Institutions (HUDCO and HDFC), Understanding and evaluation of Housing Policy and programmes in India; Central government policy; National Housing and Habitat Policy- 2007, Slum Development approaches and programmes; Rural housing- types, policy and programmes; Co-operative housing, Case studies of housing projects – (Indore Slum networking project)

- 1. Ministry of housing and Urban poverty, Govt. of India (2016), "E-Book of Ministry of housing and Urban poverty" (http://mhupa.gov.in/ebook/index.html#features/5).
- 2. Aldrich, B. and Sandhu R.S. (2015), "Housing for the Urban Poor in Developing Countries", Rawat Publications, Jaipur.
- 3. Brito, O. and Singh, A. (2014) "Understanding Urban Poverty in India, Rawat Publications, Jaipur.
- 4. Impact of Investments in the Housing Sector on GDP and Employment in the Indian Economy (2014). Study supported by DFID and Ministry of Housing and Urban Poverty Alleviation, National Council of Applied Economic Research (https://www.google.co.in/#q=Impact+of+Investments+in+the+Housing+Sector+on+GDP+and+Employment+in+the+Indian+Economy)
- 5. Planning Commission, Govt. of India, (2012). "Report of Expert Group to Recommend the Detailed Methodology for Identification of Families living below Poverty line in Urban Areas"
- 6. Planning Commission, Govt. of India, (2011). "Report of the working group on Urban Poverty, slums, and service delivery system, Steering Committee on Urbanization", New Delhi.
- 7. Jain, A.K. (2011). "The Informal City: Inclusive Growth for Poverty Alleviation", Readworthy Publications (P) Ltd., Delhi.
- 8. Chattopadhaya, S. (2009). "New Essays on Inclusive Housing", McMillan India Ltd., Delhi

- 9. Dwivedi, R.M. (2007). "Urban Development and Housing in India", New Century Publication, New Delhi.
- 10. Kohli, V.K. (2007). "Housing Finance Agencies in India" Deep & Deep, New Delhi.
- 11. Rangwala, S.C. (2005). "Town Planning", Charotar Publication House, Anand India.
- 12. Poulse Thomas, K., (2002). "Reading Material on Housing", Institute of Town Planners India, New Delhi.
- 13. Bhole, V. (1998). "Housing", Classical Publication Company, New Delhi.
- 14. Wadhwa, K. (1987). "Role of Private Sector Housing", Dhanpat Rai Publications, New Delhi.
- 15. Gupta, D. B. (1985). "Urban Housing in India", World Bank.
- 16. Sharma, L.R., (1985). "Low Cost Housing in Developing Countries", New Delhi.
- 17. Davis, S. (1978). "The Form of Housing", Van Nostrand Reinhold Company, New York.
- 18. Muth, F. (1969). "Cities and Housing", The University of Chicago Press, London.
- 19. Morris, R.N. (1965). "The Sociology of Housing", Alden Press Limited, London.

Recommended Journals

- 1. Journal of Housing Studies, Sage
- 2. Journal of Housing and Built Environment, Taylor and Francis.

GBU 304: MASTER PLAN

Credits: 04 (L=0, T=2, U=4)

Students shall be required to prepare master plan for the urban area studied in previous Planning Studio "Study of Town". The scope of master plan preparation will includes working out the detailed requirements; formulation goals, objectives and policies; planning considerations; conceptual framework; planning proposals including zoning and phasing; and implementation strategy covering organizational and financial aspects.

The master plan shall be submitted in form of a detailed report illustrated with necessary maps, charts, drawings, sketches.

"Note: The Students are required to undertake field surveys for data Collection for the said Planning Studio Exercise."

Suggested Readings

- 1. SomikLall (2013). Planning, connecting and financing cities, World Bank, Washington DC.
- 2. Helms,G. (2012). Towards safe city centres: remaking the spaces of an old industrial city, Ashgate, Aldershot.
- 3. Campbell, T. (2011). Beyond smart cities: how cities network, learn and innovate, Earthscan, N.York.
- 4. Venugopal, R.A. (2009). State of Urban services in Indian cities, Oxford University Press, N. Delhi.
- 5. Latham, A. (2009). Key concepts in Urban Geography, Sage, London.

Recommended Journals

- 1. Spatio-Economic Development Record
- 2. ITPI Journal, ITPI
- 3. Cities, Elsevier
- 4. Third World Planning Review, Liverpool University Press
- 5. Journal of Urban Studies, Sage.

GBU 305: STUDY OF REGION

Credits: 05 (L=0, T=2, U=6)

Students will be required to undertake the study of a region/district/block in holistic manner with a view to underline the basic issue pertaining to problems and prospects of development especially in spatial context. The study shall be covered under the following stages:

- Theoretical framework including norms and standards
- Identification of data
- Collection of data field visit
- Tabulation of data and presentation of base map
- Analysis of data aspect wise highlighting implication
- Identifying various resources of the region selected
- Drawing of conclusion highlighting the main issues.

The study shall be submitted in the form of detailed report illustrated with drawings, maps, charts and diagrams, photographs and sketches, highlighting the main features of the region.

"Note: The Students are required to undertake field surveys for data Collection for the said Planning Studio Exercise."

- 1. Ministry of Urban Affairs & Employment (G.O.I.) (2014). Urban & Regional Development Plans Formulation and Implementation Guidelines, ITPI, New Delhi.
- 2. Peter Hall and Jones Tewdwr Jones (2010). Urban and Regional Planning. Rutledge. New York
- 3. Aggarwal, S.K. (2007). Regional Development and Planning in India. Concept Publishing Company. New Delhi.
- 4. SudhanshuShekhar (2004). Regional Planning in India(Set of two vols.). Anmol Publications Pvt. Ltd. New Delhi.
- 5. Misra, R. P. (1992). Regional Planning: Concepts, Techniques. Policies and Caste-Studies. Concept Publisher, New Delhi.
- 6. Mahesh Chand and V.K. Puri (1983). Regional Planning in India. Allied Publications, New Delhi.

GBL 306: URBAN DESIGN (Elective)

Credits: 03 (L=2, T=1, U=0)

Definition and scope of urban design; Relationship of urban design with urban & regional planning; Elements of urban design: point, line, shape, form and organization of forms in space. Principles of design: repetition, rhythm, contrast, emphasis, symmetry, harmony, unity, variety etc.; Scale, proportion, composition, texture and pattern in urban design. Image of city and its elements: nodes, districts, paths, edges and landmarks.

Norms & standards, controls, building bye-laws and zoning regulations determining style and character of urban design. The shape and structure of cities- pattern, styles and trends in history urban design tools- policy design and legislative tools,. Urban design policy and guidelines for urban development plans. Efficacy of different agencies as promoter and protector of urban design.

Basic concepts of redevelopment & renewal. Conservation, meaning, techniques, importance and relevance in urban & regional planning. Surveys & Studies for Conservation Plan for Urban, and Rural areas. Concept of listed Buildings, Concept of Heritage zones, Preparation & Implementation of Conservation Plan, Integrating Conservation Plan with Master Plan National Organizations their role & functions Archeological Survey of India, Indian National Trust for Art and Cultural Heritage (INTACH). Case studies at city level Amritsar, York City (UK) and precinct level Katra/area of walled city, The Mall Shimla.

- 1. Paul D Sperigen (2011). "Urban Design: The Architecture of Towns & Cities". Mc GrawHill. New York
- 2. Helon Meller, Pattrick Geddes. (2009). "Social Evolutionist and City Planner". Routledge. London.
- 3. Ashworth, G.J. (2009). "Town walls, Walled Towns and Tourism: paradoxes"
- 4. Abdi Ali Mohammad (2008) "Spatial planning as an Approach to Achieve sustainable Conservation and Sustainability in Historic Cities", Dennis Rodwell .Blackwell,
- 5. Wiles Craig (2007). "Consideration of Historic Authenticity In Heritage tourism Planning and Development" Proceedings of the Northeastern Recreation Research Symposium
- 6. Edmund, N. Bacon. (2007). "Design of Cities.. Thames and Hudson". London.
- 7. Broadbent, G. (2004). "Emerging Concepts in Urban Space Design". Van Nostrand Reinhold. London.

- 8. Litwin, W. Stephen (2004) "Streetscape improvements in an historic tourist city" a second
- 9. Siddiqi, W.H. (2000). "Lucknow: The Historic City" Sundeep Prakashan, New Delhi.
- 10. Feilden, B.M. and Jukka Jokilehto (1998). Management Guidelines for World Cultural
- 11. Mohan, I. (1992). "The world of walled cities: Conservation environmental pollution, urban
- 12. Meller, Helen (1990). Pattrick Geddes: Social Evolutionist and City Planner, Routledge,
- 13. B.M Fielden (1989). Guidelines for Conservation: A technical Manual, INTACH, New
- 14. Charles Mynor (1989). Listed Buildings and Conservation Areas, Longman, London.
- 15. Kevein Lynch (1982). Good City Form. MIT Press, Cambridge, Massachusetts.
- 16. Rob Krier. (1979). Urban Space. Academy Editions, London.
- 17. Alan Dobby (1978). Conservation and Planning, Hutchinson, London.
- 18. Lewis Mumford (1961). The City in History. Secker and Warburg, London.
- 19. Kevein Lynch. (1960) The image of the City. MIT Press, Cambridge. Massachusetts and London.

Journals:

- Paradigms, Journal of Heritage Tourism, Vol 4(4) 299-314 (website :www.ema.edu.ee) development in Historic Cities" (website : www.waset.org /journals /waste /v 46/-40 .pdf) Oxford.
- Heritage Sites, ICCROM, Rome. visit to King Street, Charleston, South Carolina" Tourism management 26(2005)421-429(website: http://www.sciencedirect.com/sciemce/article/pii/so261517704000421) London.
- 3 Renewal and Development Prospects" Mittal Publication New Delhi. (Website: nrs.fs.fed.us/pubs / gtr /gtr- nrs -P -23 papers /4 1 wiles -p23.pdf)

GBL 307: LANDSCAPE PLANNING (Elective)

Credits: 03 (L=2, T=1, U=0)

Introduction to landscape design; relevance of landscape design in urban and regional planning; Trends in landscape design; Functional, architectural and environmental aspects of landscape design elements. Plants as elements of landscape design; Water as an element of Landscape design Environment and visual concerns of plants in urban & regional planning.

Site Analysis and Site Planning; Composition and structure of plants for landscaping; Characteristics and use of Trees, Shrubs, Flowers and Climbers; Planting design theory; Criteria for plant selection and plantation plan. Nature and consideration of landscape design; Landscape design process, surveys, studies and site analysis for landscaping. Evaluation, system and hierarchy of parks and gardens; Techniques and considerations for landscaping recreational and leisure areas; Philosophy and principles of Japanese and Mughal Gardens.

Plants and Planting Design; Climate and Micro Climatic considerations in Landscape Design; Approaches and design concepts for landscaping – residential, commercial and administrative and industrial areas; Landscape design for lines of movement – roads, rail, water and airways. Landscape Planning for large areas – towns & cities, industrial estates etc.; Case studies of Delhi, Chandigarh and Amritsar.

- 1 Giovanni Maciocco. (2013). "Urban Landscape Perspectives". Springer Publishers. Berlin.
- 2 Pradip Krishen. (2012). "Trees of Delhi". Dorling Kindersley India (Pvt.) Limited. New Delhi.
- 3 Nigel Dunnett, James Hitchmough (2011). "The Dynamic Landscape: Design, Ecology and Management of Naturalistic Urban Planting". Taylor and Francis. U.K.
- 4 Menon Subhadra. (2004). "Trees of India". Timeless book. New Delhi.
- 5 Chattar Singh, Rajnish Wattas. (2000). "Trees of Chandigarh". B.R. Publishing. Delhi.
- 6 Marc Treib. (1993). "Modern Landscape Architecture: A Critical Review". MIT Press. Cambridge.
- 7 Clouston Brian. (1990) "Landscape Design with Plants". Hienemam Newnes. Oxford.
- 8 James Root, B. (1985). "Fundamentals of Landscape and Site Planning". Avi Publishing Company. West Port Connecticut.
- 9 Simonds, J.O. (1983). "Landscape Architecture". McGraw Hill book Company (Inc.). New York
- 10 Mitchell Bring, Joose Wayembegh. (1981). "Japaneese Gardens Design and Meaning". McGraw Hill Book Company. New York.
- 11 Michael Laurie. (1975). "An Introduction to Landscape Architecture". American Elsevier Publishing Company Inc. New York.
- 12 Cliff Tandy. (1974). "Handbook of Urban Landscape". Watson Guptill Publications. New York.

GBL 351: PROJECT FORMULATION & MANAGEMENT

Credits: 03 (L=2, T=1, U=0)

The concept of a project—definition, characteristics and objective; taxonomy of a project: industrial and nonindustrial projects etc.; Meaning, Objective and stages of project management—Project Conception and Initiation, Project Definition and planning, Project launch or Execution, Project Performance or Control, Project Commissioning; relevance of project management in urban and regional planning. Life cycle of a project, Project Formulation and its stages; identification of a project: feasibility analysis, techno-economic analysis; Preparation of DPR and its detailed components.

Design & Network analysis, network logic, rules, forms of network, Application of C.P.M. & P.E.R.T. in Project Management, Numericals for calculating various floats for Management Decisions, determining critical paths and forward pass and backward pass computation methods; Time estimates and Work schedule- concepts & techniques, Project appraisal and report. Concept of Project monitoring and its objectives; Techniques of project Monitoring- Integrated Reporting Technique, Milestone, Time and Cost under run & over run technique and Unit Index Technique.

Project Evaluation: criteria and stages of Project Evaluation – Technical, Financial, Commercial, Sociological, Institutional and Economic; Techniques of project Evaluation- Net Present Value, Internal Rate of Return, Benefit Cost Ratio (Profitability Index), Payback Period, Accounting rate of return; Cost-benefit analysis; Financial cost-benefit analysis; discounted cash-flow analysis, Social cost-benefit analysis of public and private projects; Application of cost and benefit analysis in developing countries—Case studies in housing, transportation and infrastructure development projects.

- 1 Nagarajana, K. (2014). "Project Management". Green Publishing House. New Delhi.
- 2 Prasanna Chandra. (2011). "Projects Planning, Analysis, Financing, implementation and Review". Sage Publishers. New Delhi.
- 3 Harod Kerzner. (2009). "Project Management- A System Approach to Planning, Scheduling and Control". John Wile & Sons. USA
- 4 Shaghil, M. and Mushtaqu, M. (1993). "Project Formulation Concept & Approach". Printwell. Jaipur
- 5 Shaghil, M. & Mushtaqu, M. (1993). "Project Planning Management". Vol I, II, II, Printwell. Jaipur
- 6 Goel, B.B. (1987) "Project Management: a development perspective". Deep and Deep Publications. New Delhi.

GBL 352: REGIONAL PLANNING

Credits: 03 (L=2, T=1, U=0)

Concept of region, types of region such as formal and functional regions, planning region, definition of region – flow of analysis, gravitational analysis, concept of regional planning & its objectives, need and regional problems, regional interaction, central place theory of Christaller.

Regional networks – its importance, rail, road, irrigation, power, markets, Theories of regional development – balanced growth, unbalanced growth, cumulative causation theory.

Regional surveys such as physical, economic, social, legal, financial and administrative, collection, analysis and presentation of data, formulation of regional plan – identification of plan objectives. Formulation and evaluation of alternative plan – implementation of regional plan, its tool such as legal, administrative, financial and public participation. Selected case study of regional development – National Capital region.

- 1. Aggarwal, S.K., (2007). Regional Development and Planning in India, Concept Publishing Company, New Delhi.
- 2. Shekhar, Sudhanshu, (2004). *Regional Planning in India* (Set of two vols.), Anmol Publications Pvt. Ltd., New Delhi.
- 3. Chaudhari, Roy, Jayasri, (2001). *An Introduction to Development and Regional Planning*, Orient Longman, Hyderabad.
- 4. Shukla, Amitabh, (2000). *Regional Planning and Sustainability Development*, Kanishka Publisher Distributors, New Delhi.
- 5. Misra, R.P. (1992). *Regional Planning: Concepts, Techniques, Policies and Caste-Studies,* Concept Publisher, New Delhi.
- 6. Chand, Mahesh and Puri, V.K. (1983). *Regional Planning in India*, Allied Publications, New Delhi.

GBU 353: REGIONAL PLAN

Credits: 04 (L=0, T=2, U=4)

In continuation of the Previous Planning Studio "Study of Region". The students shall be required to prepare the Regional Plan for the region already studied. The scope of the regional plan shall include:

- 1. Formulation of Objectives
- 2. Planning Considerations
- 3. Land Utilization Plan
- 4. Hierarchy of Settlements
- 5. Communication Networks
- 6. Physical Infrastructure, Socio-Economic Infrastructure
- 7. Plan Implementation Strategies
- 8. Administrative, Legal & Financial Support

Regional plan shall to be submitted in the form of detailed report, illustrated with maps, charts, drawings, diagrams.

"Note: The Students are required to undertake field surveys for data Collection for the said Planning Studio Exercise."

- 1. Ministry of Urban Affairs & Employment (G.O.I.) (2014). Urban & Regional Development Plans Formulation and Implementation Guidelines, ITPI, New Delhi.
- 2. Peter Hall and Jones Tewdwr Jones (2010). Urban and Regional Planning. Rutledge. New York
- 3. Aggarwal, S.K. (2007). Regional Development and Planning in India. Concept Publishing Company. New Delhi.
- 4. SudhanshuShekhar (2004). Regional Planning in India(Set of two vols.). Anmol Publications Pvt. Ltd. New Delhi.
- 5. Jayasri Roy Chaudhari (2001). An Introduction to Development and Regional Planning. Orient Longman, Hyderabad.

GBU 354: VILLAGE PLAN

Credits: 05 (L=0, T=2, U=6)

The exercise aims to orient students to understand the character of the village, understand physical, social, demographic, environmental and other requirement such as (chajjra plan) of the village. The plan proposal will be highlighted to suggest suitable models of development of village and its economy.

- 1. It will include preparation of a detailed list of the components of study of the village. To understand the character of basic/focal village or urban village.
- 2. Data Identification:
 - Indicating time series data.
 - Data Indicators, Understanding the relevance/source's of Data as: Physiographical data.
 Historical Growth, Land use and identification of different components of village,
 Infrastructure, demographic, economic, social character.
 - Identification of village ecosystem
 - Role of village panchayat/gramsabha. in development of village.
- 3. Preparation of Base map (out line plan, Street network Plan), Theme maps and general outline map of the village using basic surveying techniques.
- 4. Presentation of the profile of the village settlement and surrounding area.
- 5. Identifying Issues and Challenges that needs solutions and Plans.
- 6. Presentation of Problems and Potentials on map, illustrations.
- 7. Population projection in relation to the village requirement and Proposed Plan of the village
- 8. Plan implementation Strategy (Role and functions of village bodies in the light of 73rd amendment).

"Note: The Students are required to undertake field surveys for data Collection for the said Planning Studio Exercise."

Suggested Readings:

1. AvtarDhesi, (2008). Rural Development in Punjab: A Success Story Gone Astray, Rourledge India.

- 2. Kashyap, G.B. and Garg, J.P.(2008). *Rural India: Vision and Action 25 Vol.*, Vista International, New Delhi.
- 3. Gupta, K.R. (2004). Rural Development in India (Vol.2), Atlantic Publishers abd Distributors Pvt. Ltd.
- 4. Tiwari, S. (2000), Rural Development, Anmol Publications Pvt. Ltd.
- 5. Kumar, Ghosh (1991), Management of Rural Development, Anmol Publications Pvt. Ltd.

GBL 356: PLANNING FOR SPECIAL AREA (Elective)

Credits: 03 (L=2, T=1, U=0)

Meaning, types and scale of special areas; Special areas as determinant of Urban & Regional Planning and Development; Issues and Challenges, resources and constraints of special areas; Special areas as man-made development attributes. Capital regions, industrial estate/regions tribal areas, Tourist Attraction and centers, border areas

Considerations and guidelines for planning and developing special areas; Norms, standards and approaches to plan and develop such areas; Contemporary concepts: Challenges, considerations and guidelines; Technological breakthroughs, policies and programmes for Shopping Malls and Multiplexes, Information Technology Parks, Theme Parks, Special Economic Zone, Utopian concepts: Case studies- Hill Area, Information Technology Park and Commercial areas

Urban poverty: definitions, causes, impacts and dimensions; programmes for urban poverty alleviation, impact of macro-economic structural policies on the poor urban poor; Size and composition of informal sector; Concept, characteristics and importance of informal sector in urban areas; Roots of informal sector in the context of poverty, migration, urbanization

- 1. Aldrich, B. and Sandhu R.S. (2015). "Housing for the Urban Poor in Developing Countries", Rawat Publications, Jaipur
- 2. Jain, A.K. (2011). "The Informal City: Inclusive Growth for Poverty Alleviation", Readworthy Publications (P) Ltd., Delhi
- 3. Govt. of India (2009) "National policy on urban street vendors", Ministry of Housing & urban poverty alleviation, Nirman Bhavan, New Delhi
- 4. Mistch, J., William and James G. Goselwik, (2009). "Wetlands", fourth Edition, John Wiley & Sons, New Jersy.
- 5. Geeta Das, (2009). "Special Economic Zones in India: Lessons from China", Eastern Book corporation, New Delhi
- 6. Anton. Clave, T. (2007). "The Global Theme Park Industry", CPL Scientific, London.
- 7. Singh, T. (2006). "Disaster management approaches and strategies", Akanksha Publishing house, New Delhi.
- 8. Jos Arts and Saunders Angus Morrison, (2004). "Assessing Impact: Handbook of EIA", Spons Architecture Price Books, U.K.
- 9. Peter Morris and Therivel, R.K. (2003). "Methods of Environmental Impact Assessment, SEA Follow-up", CPL Scientific Publishing Services, U.K.

GBL 357: DISASTER MANAGEMENT (Elective)

Credits: 03 (L=2, T=1, U=0)

Understanding Natural and Man-Made Disaster, Difference between Disaster and Hazard, Concept of Disaster Management; Disaster Cycle; mitigation, preparedness, recovery, response, Disaster Phases and trauma, Risk and vulnerability, Type of Disaster and their Impact; anthropogenic, natural and hybrid, Role of Urban and Regional Planning in Disaster Management, Risk and its dimensions, Urban and regional environment risk indicators.

Disaster Risk Reduction (DRR), Disaster Response and Preparedness Plan, Vulnerability analysis and mapping techniques, Post disaster Rehabilitation, Partnerships in Disaster Management, Post disaster Rehabilitation, Partnerships in Disaster Management, Disaster profile of India, Institutional arrangements for disaster management in India, Indian Meteorological Department, Indian National Centre for Oceanic Information Services, Central Water Commission, Geological Survey of India, Snow and Avalanche Study Establishment.

Financial structure for Disaster Management, Policy and Legislation related to Disaster Management, disaster management legislation and policy framework (United Nation International Strategy for Disaster Risk Reduction (UNISDR), International Search and Rescue Advisory Group, (INSARAG), Global Facility for Disaster Risk Reduction (GFDRR), Asean Region Forum (ARF), Asian Disaster Reduction Centre (ADRC), SAARC Disasters Management Centre (SDMC), others. Hygo Framework of Action, Best practices/case studies in natural and manmade disaster management. Disaster Management; case studies and best practices.

- 1 Rasik, R. and Sinha, R. (2013). Earth system processes and disaster management, Springer, New York.
- 2 Singh, T. (2006). Disaster Management Approaches and Strategies, Akanksha Publication House, New Delhi
- 3 Edwards, B. (2005). Natural hazards, Cambridge University press, U.K.
- 4 Sharma, R.K and Sharma, G. (2005). (eds) Natural disasters, APH Publishing, Delhi.
- 5 Bhandani, R.K. (2005). An overview on Natural & Manmade Disaster & their Reduction, CSIR, New Delhi.

- 6 NDMA (2005). National Disaster Act, 2005.
- 7 Singh, S. (2003). Disaster Management in Hills, Concept publication Co., New Delhi.
- 8 Goel, S.L. and Kumar, R. (2001)Disaster Management, Deep and Deep Publications, New Delhi
- 9 Gupta, M.C. (2001). Manuals on Natural Disaster Management in India, National center for Disaster Management, IIPM, New Delhi.
- Arya, A.K. (1994). Action plan for Earthquake, Disaster, Mitigation in V.K Sharma (ed.), Disaster Management, IIPA Publication New Delhi.

Recommended Journals

Community, Environment and Disaster Risk Management

GBL 401: RURAL SETTLEMENT PLANNING

Credits: 03 (L=2, T=1, U=0)

Definition, significance, types and salient features of rural settlement. Morphology of rural settlement. Socio-economic matrix of rural life – poverty, unemployment, indebtedness, caste system. Interdependence and efficacy of socio-economic sectors. Rural settlement planning in the light of 73rd Constitution amendment (eleventh schedule) and 74th Constitution amendment Act, 1992 (Twelfth schedule).

Issues and challenges related with housing, water supply and sanitation, health, educational facilities for rural settlements. National policies and programmes of rural settlement in planning and development in the context of Five Year Plans. Priorities and strategies for planning and development of rural settlements. Infrastructure inputs for agriculture – fertilizers, pesticides, farm mechanization.

Input/output infrastructure of allied activities – animal husbandry, poultry, seri-culture, beekeeping. Rural institutions and organizations – rural banks, cooperatives, Panchayiti Raj system. District Rural Development Agency – acts, powers and functions.

- 1. Dhesi, Avtar (2008). Rural Development in Punjab: A Success Story Gone Astray, Routledge India.
- 2. Gupta, K.R. and PransenjitMaiti (2008). *Rural Development in India (Vol.3)*, Atlantic Publishers and Distributors Pvt. Ltd.
- 3. Kashyap, G.B. and Garg, J.P. (2008). Rural India: Vision and Action 25 Vol., Vista International, New Delhi.
- 4. Gupta, K.R. (2004). Rural Development in India (Vol.2), Atlantic Publishers and Distributors Pvt. Ltd.
- 5. Tiwari, Satish, (2000). Rural Development, Anmol Publications Pvt. Ltd.
- 6. Kumar, Ghosh, (1991). Management of Rural Development, Annol Publications Pvt. Ltd.

GBL 402: GOVERNANCE AND MANAGEMENT

Credits: 03 (L=2, T=1, U=0)

Definition, objectives and scope of Governance: Basic principles and process of Governance; Role of Governance in a developing economy. Theory and meaning of organization; Settlement Planning a decision making process; Application of management techniques in urban & regional planning; Development Administration at National, Regional, State, District and Local levels and the process of decision making at various levels related to urban & regional planning.

Development and management; Urban & regional development management policies and programmes, priorities and provisions of Government of India in the National Development Five Year Plans and their relevance in urban and regional planning; NITI Aayog and development process; Functions, Powers, Structures and Resources of State level planning and development agencies and their performance

Case studies of Punjab Urban Planning and Development authority (PUDA), State Pollution Control Board (PPCB), Punjab Infrastructure Development Board (PIDB); Functions, Powers, Structures, Resources and role of local level planning and development agencies (Municipal Bodies, Improvement Trusts and city/Urban development authorities) and their performance with special reference and coverage relating to such Government agencies in the State of Punjab.

- 1. NITI Aayog, National Institution for Transforming India) Government of India
- 2. Planning commission, 12th five year plan (2012-17), Government of India
- 3. 1st to 11th Five year plans, Planning commission, GOI.
- 4. Mott. Macdonald (2014), 'Urban and Regional Development Plans Formulation and Implementation (URDPFI) Guidelines', MoUD, New Delhi.
- 5. Kulshrestha, S. K. (2012), *Urban and Regional Planning in India: A Handbook for Professional Practice*, Saga Publications, New Delhi.
- 6. Sachdeva, P. (2011). Local Government in India. Delhi: Pearson.
- 7. Srivastava, K. (2011). Decentralised Governance and Panchayati Raj. Delhi: Kalpaz Publicaitons.
- 8. Jain, A. (2010). Urban Planning and Governance. New Delhi: Bookwell india.
- 9. Joseph, T. (Ed.). (2009). *Decentralised Governance and Development*. New Delhi: Deep & deep publications Pvt. Ltd.
- 10. Joseph, T. (Ed.). (2009). *Governance Reforms Challenges Ahead*. New Delhi: Kanishka Publishers.

- 11. Sharma, R. (2009). *Local Government in India: Policy and Practice*. Delhi: Salasar Imaging Systems.
- 12. Yadav, S. N. (2009). *Good Governance: Issues, Challenges and Prospects*. New Delhi: Global vision publishing house.
- 13. Chhikara, R. (Ed.). (2009). *Governance problems, prospects and perspectives*. Gurgaon: Hope India Publications.
- 14. Saunier, R. E. (2008). *Dictionary and Introduction to Global Environment Governance*. Noida: Gopsons Papers ltd.
- 15. Rao, P. (Ed.). (2006). *Urban Governance and Management*. New Delhi: Kanishka Publishers.
- 16. Jagmohan. (2005). *Soul and Structure of Governance in India*. New Delhi: Allied Publishers pvt. ltd.
- 17. Debroy, B. (Ed.). (2004). Governance. New Delhi: Academic Foundation.

GBE 403: INTERNSHIP (8 Weeks)

Credits: 04 (L=0, T=0, U=4)

The students are required to work in the planning office /organization they are assigned to, for a period of 8 weeks. The students are required to understand the following and write a report (25-30 pages) containing the following aspects

- 1. A brief introduction to the organization.
- 2. Objectives and functions of the organization.
- 3. Nature and structure of the organization, explanation of various divisions and their role/working in the organization.
- 4. Nature of projects, responsibilities and authority (Legal, Jurisdictional etc.) of the organization in the recent past.
- 5. Nature of current projects in brief, undertaken by the organization.
- 6. Details of the project(s)/activities the student has workedupon.
- 7. Student's contribution, comments/observation on various activities/project(s) undertaken by him in the organization.
- 8. Nature of responsibility given to the student and the work done by him/her on weekly basis.
- 9. The viva-voce of the report shall be conducted by the Internship Coordinator.

The student is required to bring the following documents on the **official letterhead** from the organization in which he/she has undergone internship

- 1. Joining Report: A letter issued by the organization duly signed by the internship supervisor/authorized signatory.
- 2. A certificate from the head of the organization/division regarding attendance of internship and its successful completion.

GBU404: DETAIL PROJECT REPORT

Credits: 03 (L=0, T=0, U=6)

The students shall undertake the preparation of project/s in detail. The aim of the exercise is to understand a project while preparing Detailed Project Report (DPR) of designed project/s of various nature i.e. Commercial, Industrial, Institutional, Residential, Transportation or any other project. The exercise will be completed as per the following stages:

a) Study of the Project

The study of project is to highlight the prime objectives of the project and set Network priorities of the project.

b) Preparation of Development Project

To identify the components as major tasks of project and set their priority for the implementation with the help of PERT/CPM charts. The students shall be required to prepare cost estimates of the various identified tasks and total project cost along with the time frame. They shall identify the returns from the project, total seed money required, working capital and breakeven point on timeframe.

c) Project Implementation and Monitoring Mechanism

To identify agencies, financial and legal mechanism involved in the implementation of different components of the project.

"Note: The Students are required to undertake field surveys for data Collection for the said Planning Studio Exercise."

- 1 KerznerHarod (2006). Project Management- A System Approach to Planning, Scheduling and Control, John Wile & Sons, USA.
- 2 JNNRUM (2005). Guidelines Ministry of Urban Development & Poverty Alleviation, Govt. of India, New Delhi.
- 3 Chandra, P. (2002). Projects Planning, Analysis, Financing, Implementation and Review, Sage Publishers, New Delhi.

GBU 405: SPECIAL AREA PLAN

Credits: 06 (L=0, T=0, U=8)

Students shall be required to undertake the study and planning of special area. The exercise offers an opportunity to the students for learning the characteristics of the special areas, justifying its term as "special". Special areas can be of natural and manmade planning and development attributes. The focus shall revolve around the concepts, guidelines, considerations, issues and challenges for special areas. The pre-requisite for special areas, along with the financial, legal and administrative mechanisms need to be explored in the view of planning and development of the special areas.

The study conducted and the plan prepared shall be submitted in the form of a detailed report illustrated with maps, charts, sketches, photographs. underlying the focus for special areas.

"Note: The Students are required to undertake field surveys for data Collection for the said Planning Studio Exercise."

Suggested Readings:

- 1 Latham, A (2009). Key Concepts in Urban Geography, Sage, London.
- 2 Bharucha, E (2005). Text book of Environmental Studies, University Press, Hyderabad.
- 3 Agarwal, K.C. (2001). Environmental Biology, Nidhi Publications Ltd., Bikaner.
- 4 Down to Earth, Centre for Science and Environment, New Delhi.
- Keeble, L (1972). Principles and Practices of Town & Country Planning, The Estate Gazette Ltd., New Delhi.

Recommended Journals:

Spatio-Economic Development Record, Indian Institute of Town Planners, India, Journal of Urban Studies

GBL 406: COMMUNITY PARTICIPATION IN PLANNING

Credits: 03 (L=2, T=1, U=0)

Definition and concepts of community participation, Ladders of Public Participation – Arnstein Ladder etc, Communication and Public Participation in decision making process in planning, Challenges to public participation

Emerging approaches to Public participation, Participatory budgeting process, Case studies in urban planning India, Abroad where projects are implemented through community participation Selecting the appropriate level of public participation, developing a detailed public participation plan, planning for communications initiatives that support the process, Identifying appropriate evaluation tools to measure the effectiveness of the public participation process.

Challenges and obstacles to community participation, requisites of successful community participation, Capacity building for successful community participation, Participatory rural appraisal, Participatory mapping for decision making, participatory budgeting, Participatory action research, Participatory rapid appraisal, Community participation best practices in urban and regional planning and development from urban and rural environs in India and globally.

Suggested Readings

- 1. Green, Gary Paul, Anna Haines (2015). Asset Building and Community Development, Sage Publications
- 2. Robinson Jerry W (2011). Introduction to Community Development: Theory, Practice and Service Learning, Sage Publications Ltd.
- 3. The Effectiveness of Community Participation In Planning And Urban Development (2008).
- 4. Cox Robert (2006). Environmental Communication and the Public Sphere. Sage
- 5. Creighton James L. (2005). The Public Participation Handbook, Josey Bass
- 6. Depoe Stephen P., Delicath, John W., Elsenbeer, Marie-france Aepli (eds) (2004). Communication and Public Participation in environmental decision making (Albany, NY: State University of New York Press).
- 7. Sanoff Henry, John (2000). Community Participation Methods in Design and Planning: Wiley & Sons, New York, 2000, 306 pp.
- 8. Fiorino D. J. (1990). Citizen participation and environmental risk: A survey of institutional mechanisms.
- 9. Arnstein A. (1969). ladder of citizen participation. Journal of the American Institute of Planners, 25, 216-224.

Journals

Planning Theory

GBL 407: METROPOLITAN PLANNING

Credits: 03 (L=2, T=1, U=0)

Introduction to metropolis and related concepts such as urban agglomeration, conurbation, World cities; Metropolitan development as a component of urbanization, Metropolis; its growth, scale and complexity, Common planning practices adopted in metropolitan cities, Contemporary Issues and problems in India Metropolitan cities-Housing, transport, industry, commercial, open spaces transport etc. Area of influence of Metropolis, metropolitan region and delineation techniques.

Metropolitan regional structure; its characteristics and components. Examples of current design and plans of few metropolitan cities especially in regional contexts. Primate city, degree of primacy and its phenomena Form and concept for metropolitan planning and development; Sheets, Galaxy, Core, Star, Ring and Multinucleated, Efficacy/application of metropolitan forms in Metropolitan centralization and decentralization processes. Modern thinkers and concept—Manual Castel and others.

Role of MPC as per 74th Amendment Act, 1992: Metropolitan planning process: studies and surveys; techniques and contents. Tools and constraints in the implementation of Metropolitan development plan, administrative, legal, financial setup and public participation in metropolitan plan making process. Metropolitan planning and development in India: General Urbanization Trends in India and Punjab, Study of planning and development efforts for Mega Cities (Calcutta, Bombay, Delhi, Madras) and other Metropolitan Cities of Punjab as Ludhiana, Amritsar and Chandigarh.

- 1) Dr. Nath V. (2010). "Urban Development and Metropolitan Cities in India", Concept Publishing Company, New Delhi
- 2) Aggarwal, S.K. (2007). "Urbanization, Urban Development & Metropolitan Cities in India", Concept Publishing Company, New Delhi.
- 3) Sandhu, Ranvinder, (2006). "Urbanization in India A Sociological Approach", Sage Publication, New Delhi
- 4) Ramachandran, R, (2000). "Urbanization and Urban System in India", Oxford University Press, U.K.
- 5) Charles, M. Christiane and Robert Harper, (1992). "Modern Metropolitan System", Charles E Merrill Publish Co., U.S.A.
- 6) Rao, M Partap Rao (1990). "Planning for Metropolitan Cities A Suggestive Approach", Concept, Delhi.
- 7) Johan, W Dickey (1985). "Metropolitan Transportation on Planning", McGraw Hill Book Co., New Delhi.

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Bachelor of Technology (B. Tech.) (Urban & Regional Planning) (Semester-VIII) (2019-20) (Under Credit Based Continuous Evaluation Grading System)

GBD 451: PLANNING DISSERTATION

Credits: 16 (L=0, T=8, U=16)

Each student is required to prepare a dissertation on the subject of his / her choice, concerning

urban, regional or rural planning. The topic shall be approved by BOC. Dissertation will provide

an opportunity to the student to conduct independent research by using the skills of analysis and

synthesis learnt through various theory and practical courses. Dissertation will be completed

under the guidance of a supervisor approved by BOC. Dissertation will be in accordance of

Thesis Manual prepared by the Department.

The students will be required to present dissertation in periodic reviews along with the report.

The student will also be required to present his/her dissertation before the external jury appointed

by the concerned University / Department.

GBL 453: DEVELOPMENT FINANCE (Elective—1) Credits: 03 (L=2, T=1, U=0)

Multiple sources of Finance: Nature and composition of income and expenditure, limitations and need for revenue enhancements; Expenditure control methods and mechanisms; Budgetary allocation from Central and State Governments for urban development; Assistance from foreign donors and Multi National agencies; Non-traditional sources of funding; Market access; Pool finance and prerequisite conditions for accessing nontraditional funds.

Additional Funding sources: Types of partnership approaches; Privatization of civic services; public private partnership mechanisms; Emerging cost effect technology interventions; Role of state government and urban local bodies; City's challenge fund; Urban reforms; Implications on resources, incentive fund and state level pooled finance development fund.

Institutional Capacity Enhancement; Financial operating plan, city corporate plan; Development of urban indicators; Infrastructure pricing and financing – financing mechanisms in addition to tax and grants; private public partnerships like BOT, BOOT, BOLT etc.; Types of contracts and ownerships; User charged projects; Pricing of services; Impact fee, subsidies.

- 1. Mott. Macdonald (2014), 'Urban and Regional Development Plans Formulation and Implementation (URDPFI) Guidelines', MoUD, New Delhi.
- 2. Wellman, K. M. (Ed.). (2012). *Urban Infrastructure: Finance and Management*. Unitied Kingdom: Wiley Blackwell.
- 3. Sharma, R. (2009). *Local Government in India: Policy and Practice*. Delhi: Salasar Imaging Systems.
- 4. Sethi, V. K. (2007). *Infrastructure Development in India*. New Delhi: New Century Publications.
- 5. Peterson, G. E. (Ed.). (2007). Financing Cities. New Delhi: Sage Publications.
- 6. Beall, J. (2005). Funding Local Governane. Great Britain: ITDG publishing.
- 7. Bhatia, H. (2003). Public Finance. New Delhi: Vikas Publishing House pvt. ltd.

GBL 454: MEGA PROJECTS (Elective-I)

Credits: 03 (L=2, T=1, U=0)

Mega projects—concepts, key drivers of mega projects, characteristics; Mega projects - types and nature: buildings, roads, environment, and irrigation based etc.; law/theories behind mega projects; Related concepts—SEZ, Free Trade Zones, Mega projects and urban development and regional development.

Urbanization trends in India and mega projects; Implications of mega projects, mega projects and displacement; Trans-nation impacts of mega projects; Legal measures and mega projects: guidelines for mega projects; Environmental policy, National Rehabilitation and Resettlement Policy of Project Affected Families.

Planning process, Siting and development, plan preparation of mega projects; Infrastructure; Mega projects and Project financing; changing system of governance; role of public private partnership in mega projects, Case studies of mega projects related to transportation, irrigation, commercial etc.

- 1. Flyvbjerg, Bent, (2014). What You Should Know About Megaprojects and Why: An Overview, Project Management Journal, April/May 2014.
- 2. P.Hugo. (2008). Decision making on Mega projects, cost/benefit analysis, planning and innovation, Elgar publication, London.
- 3. Verma S.P. ed.(2004). "Infrastructure in India's Development: Power, Transport and Communication", Institute of Public Administration, New Delhi
- 4. Flyvbjerg, Bent, (2003). Megaprojects and Risks, Cambridge University press, UK
- 5. Ganesan S. ed. (2001). "Infrastructure Development and Financing", Kanishka Publishing, New Delhi."
- 6. Kundu Amitabh ed. (2000). "Inequality Mobility and Urbanization: China & India". Manak Publications Pvt. Ltd., New Delhi.
- 7. Moss Timothy (2000). Marvin "Urban Infrastructure in Transition; Networks, Buildings, Plans Earthsian Publisher, UK
- 8. Kulwant Singh ed. (1996). "Integrated Urban Infrastructure Development in Asia". Oxford & IBH, New Delhi.
- 9. Potter Robert B. (1985). "Urbanization and Planning in the 3rd world: spatial perceptions and public", Institute of Local Government Studies, University of Birmingham.

GBL 455: PROFESSIONAL PRACTICE (Elective –2)

Credits: 03 (L=2, T=1, U=0)

Introduction and importance of professional planning practice, Role of Planner in decision making process: qualities and responsibilities of spatial planner, Professional Ethics, Code of Professional Conduct, Code of Conduct of members of ITPI; Aims & objectives of professional institutes such as Institute of Town Planner, India, Sister professional institute such as Institute of Engineers, Institute of Architecture; Various services rendered by professional planner: Consultancy agreements & contracts.

Professional Planning in Public Sector – National Level, Interstate Level, State Government Level, District Level, Metropolitan Area Level, and Local Level. Initiation of Private Sector in Spatial Planning Process: Appointment of Consultants, contractors and developers. Professional Practice in Private Sector – Need of private sector involvement and types of private sector participants; Professional Practice in the joint Sector – Models of PPP and case studies of joint ventures; Legal Backing for residential developments in Punjab. Registration, Licensing, consultancy office.

Organization composition and structure; Office infrastructure and equipment. Study of Revenue Plans in context of layout plans and Conversion Tables. Charges for normal and special professional services and their mode of payment. Relationship of the professional planner with clients, contractors, developers, public bodies and institutions; Copy rights, Disputes arbitrations; Handling of legal matters. Personnel Management – Objective, Motivation Theories, Leadership, Time Management; Performance Appraisal- its importance and various techniques.

- 1. Ministry of Urban Affairs & Employment (G.O.I.) (2014). "Urban & Regional
- 2. Development Plans Formulation and Implementation Guidelines", ITPI, New Delhi.
- 3. Kulshrestha, S.K. (2012) "Urban and Regional Planning in India". SAGE Publication. New Delhi
- 4. Chawla, B.S. (2009) "Punjab Urban Development Acts and Rules". Chawla Publication
- 5. (P)Ltd. Chandigarh.
- 6. American institute of certified planners (2005) "Code of ethics and professional conduct", www.planning.org/etics/ethicscode.htm
- 7. Institute of town planners, (2003). "India. Memorandum, articles of association and byelaws". New Delhi
- 8. M. Shahgill, M. Mushtaque. (1993) "Project Management: Concept and Approaches". Printwel. Jaipur.
- 9. Pandey, J.N. (1982) "Constitutional Laws of India". Central Law Agency., Allahabad.

GBL 456: PLANNING FOR TOURISM (Elective-2)

Credits: 03 (L=2, T=1, U=0)

Definition and concepts related to tourism, Role of tourism in socio-economic development, global tourism trends, regional and intra regional tourism, inbound and outbound tourism, domestic and international tourism, Forms of tourism: historical, religious, heritage and cultural, business, sports, medical, eco-tourism, highway tourism, Considerations for planning areas with tourism potentials.

Sustainable tourism and its components, socio-cultural impacts of tourism, economic and environmental impact assessments in tourism, social audits and community participation in tourism, slum tourism, indigenous tourism, wild life tourism, Tourism infrastructure at spot and city level.

Tourism potentials and problems in Urban and Rural India, Tourism best practices case studies; adventure and eco-tourism, religious-cultural tourism, historical tourism, Role of national/international organizations in tourism; World Tourism Organization, Asia- Pacific Economic Cooperation- Tourism Working Group Indian Ministry of Tourism, India Tourism Development Corporation Limited, tourism policies/ agreements at local and global scale, Ethics in tourism planning.

Suggested Readings:

- 1 Yang, L. (2014). Ethnic tourism planning, Ashgate, Surray.
- 2 Mason, P. (2008) Tourism Impacts planning and management, Butterworth, Heinemann.
- 3 M. Dixit, M, (2007). Tourism, Royal Publishers, Delhi.
- 4 Gupta, S.P, K. Bhatacharya, K,(2002). Cultural tourism in India, DK printers, Delhi
- 5 Pearce, D.G. and B. Butler (1999). Contemporary issues in tourism development, Routledge, London.
- 6 Page, S.J and Hall, C.M, (1998). The geography of tourism and recreation, Routledge, London.
- 7 Oki, M, (1998), Fairs and festivals, World friendship association, Tokyo.

Journals

1 South Asian Journal of Tourism and heritage

GBF 457: CITY EXPOSURE

Credits: 02(L=0, T=0, U=2)

Each student shall be required to visit different places in the country or abroad of his or her own choice. The objective of the visit is to experience the students to the functioning of various planning & development organizations as well as to see their live projects.

- 1. The students shall, as a part of the exposure visit Town & Country Planning offices/Municipal corporations and other related offices and conduct site visits of live projects and observations of the city.
- 2. A report (25 pages) is to be submitted to the respective coordinators covering the following details:
 - i) Organizational and legal setup of the visited offices.
 - ii) Projects of the organization (last 5 years).
 - iii) Site visit reporting must be supported by photographs / illustrations and Maps.
 - iv) Observations regarding spatial planning in the city.
- 3. The final report shall be evaluated through a viva-voce examination by the respective coordinator.

Note: Exposure visit is to be conducted during VIIsemester and Viva-voce to be conducted in the VIII semester