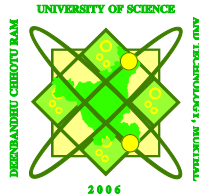


# **DEPARTMENT OF ARCHITECTURE**

**Deenbandhu Chhotu Ram University of Science and  
Technology, Murthal (Sonapat)**



**MASTER OF URBAN AND RURAL PLANNING  
FULL TIME (2 YEARS)**

**ORDINANCE  
SCHEME OF EXAMINATION & SYLLABUS  
APRIL 2013**

**DEEBANDHU CHOTTU RAM UNIVERSITY OF SCIENCE & TECHNOLOGY**  
**MURTHAL, SONPAT (HARYANA)**  
**ORDINANCE FOR CREDIT BASED SYSTEM**  
**For**  
**MASTER OF URBAN AND RURAL PLANNING**  
**(w.e.f. academic session 2012-13)**

**1. Introduction**

**1.1** This ordinance shall apply to the Post Graduate programme, Master of Urban and Rural Planning in the University.

<b>Duration of the Course</b>		
<b>Course</b>	<b>Normal duration</b>	<b>Extended duration</b>
M. U. R. P.	Full time Two years (04 semesters)	Four years (08 semesters)

(a) However, a student, who having passed the second semester examination discontinues her/ his studies, for some justified reasons may be permitted to join the third semester within one year of her/his passing the second semester examination.

(b) An academic year shall consist of two semesters (odd & even) of approximately 20 weeks duration inclusive of the period of examination and semester break. The eligibility criteria for admission to the programme, fee structure, academic calendar, scheme of studies and examinations, examination schedule, sports calendar and cultural activity calendar etc. for the academic year shall be published in the University prospectus.

**2. Ordinance: Master of Urban and Rural Planning**

Notwithstanding anything contained in any other ordinance with regard to the matter hereunder, the courses of study for the degree of Master of Urban and Rural Planning and the conditions for admission thereto shall be as under:

**2.1 Eligibility Criteria for Admission**

(a) Bachelor's degree in Civil Engg, Architecture or Planning, Master degree in Economics, Sociology, Geography from any University / Institution in India or Abroad or its equivalent degree recognised by the Government of India with not less than 50% marks in the aggregate or equivalent grade of a recognized university or an examination recognized as equivalent thereto by this University. Relaxation up to 5% in the qualifying examination marks shall be provided to SC / ST candidates as per Haryana Government rules. The qualification of Bachelor in Planning or B.Tech. (Planning) should be recognized by the Institute of Town Planners, India.

(b) Before accepting the admission, the candidate must also ensure that she/he fulfills the minimum eligibility conditions as laid down herein and by the University for admission to the programme.

(c) The admission would be made on the basis of the merit of the qualifying examination or as per the criteria decided by the University from time to time. The reservation would be according to the Haryana Government/University norms notified in the admission brochure.

(d) The reserved seats remaining vacant in the first counseling shall be carried forward to the second counseling and filled from respective categories of candidates. The above categories of reserved seats still remaining vacant shall be converted into general category seats in the third counseling and filled out of the merit list of general category candidates in the third counseling.

(e) Fresh merit list will be prepared for each counseling.

(f) Only those candidates who present themselves personally on the specified date and time along with the originals of all the documents will be considered for admission.

(g) The admitted candidates will be required to deposit semester fees (non-refundable), securities (refundable) etc. of amount as decided by the University in cash/ D.D. on the spot at the time of admission.

**2.2** At the end of the each semester, there shall be an examination wherein candidates shall be examined in the courses studied by them in that semester. Each semester examination shall be designated as First Semester Examination, Second Semester Examination, and Third Semester Examination and so on.

**2.3** The Examination for all semesters will normally be held in December/January and also in May/ June on such dates as may be fixed by the Controller of Examination as per the Schedule provided by the University. The date(s) of commencement of examination as well as the last date(s) for the receipt of examination forms and fees shall also be notified by the Controller of Examinations to the concerned University Teaching Departments.

**2.4** The courses of study and the subjects of examinations shall be as approved by the Academic Council from time to time. The medium of instruction and examination shall ordinarily be English except otherwise decided by the Academic Council. The question paper will be set in English, except otherwise decided by the Board of Post Graduate Studies and Research, Department of Architecture and approved by the Academic Council. Every candidate shall be examined in the subjects as laid down in the syllabus approved by the Academic Council from time to time. The credits for each subject as also the contact hours per week will be mentioned in the scheme of studies approved by the Academic Council.

**2.5** The Chairperson of the department shall appoint a faculty member with post graduate qualification as M. U. R. P. coordinator; who shall have the full responsibility for coordinating the minor tests, evaluation work, awarding of grades and attendance compilation.

## **2.6 Evaluation Process**

### **2.6.1 Sesssionals:**

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

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

<b>D)</b>	<b>Dissertation</b>	
1.	Synopsis	10%
2.	Mid term submission	50%
3.	Prefinal submission	40 %
<b>D)</b>	<b>Thesis</b>	
1.	Synopsis	10%
2.	Programme formulation	30%
3.	Concept	20%
4.	Preliminary Design	40%

**(a) Theory courses:**

Every student has to appear in both the minor tests. If a student does not take a minor test, he/she shall be awarded zero marks in that test.

**(b) Planning Studio Courses:**

The evaluation of Planning Studio courses will be through presentation and digital and print submissions.

**(c) Dissertation:**

The evaluation of Dissertation will be through presentation and digital and print submissions.

**(d) Thesis:**

The evaluation of Thesis will be through presentation and digital and print submissions. It will be done by a jury constituted by the Chairperson of the Department. The jury will comprise of Chairperson/M. U. R. P. coordinator, thesis guide and one external examiner.

The marks obtained in sessionals of theory/design studio/ dissertation/thesis courses are to be submitted to the Examination Branch duly signed by the M. U. R. P. coordinator and Chairperson of the department before the close of semester examination or a date fixed by the Controller of Examination. The examination branch shall convert the marks in to equivalent grades as per the grading procedure.

If a candidate, after attending the classes for the course of studies in the Department, but has failed in sessionals of one or more courses of studies, she or he can appear for such sessionals at subsequent semesters without attending a fresh course of studies for that semester. Such a candidate may, in the meantime, pursue her or his studies for the next semester(s) and appear in the examination(s) for the same along with the examination for the lower semester(s).

**2.6.2 End semester Examinations**

**(a) Theory examination:**

The theory papers shall be set by external/internal paper setters selected by the Vice-Chancellor from a panel of paper setters and examiners supplied by the Chairperson of the department and duly approved by the Board of Post Graduate Studies and Research of the Department. The evaluation of theory papers will be done by examiner(s) as per the University norm and notified by the Controller of Examinations. If there is more than one examiner in a course, the grading will be done through mutual consultation among the examiners to maintain uniformity of grades.

There shall be a different set of external examiners for each subject every year having Masters or Ph.D. or equivalent degree in Architecture/Planning or relevant disciplines. If a different set of external examiners for each subject every year is not available, alternate set of examiners may be selected by the Vice Chancellor from a panel of paper setters and

examiners supplied by the Chairperson of the Department and duly approved by Board of Post Graduate Studies and Research.

An external examiner for any subject of examination shall have a minimum of 5 years of teaching / professional experience in his / her specific field of study.

**(b) Planning Studio Examination:**

Portfolio evaluation in Planning Studio shall be through viva-voce and digital and print submissions. It shall be conducted jointly by the external and internal examiners. If an external examiner is not available to come, alternate examiner (including those of the same University department) may be appointed by the Chairperson of the concerned department with the intimation to the Controller of Examinations in the following preferential order:

i) From outside ii) From DCRUST Murthal.

**(c) Practical Training Examination:**

Portfolio evaluation of Practical Training will be through viva voce and digital and print submission; it shall be conducted by a jury comprising of the Coordinator of the Programme and an External examiner.

**(d) Dissertation Examination:**

Portfolio evaluation of Dissertation will be through viva voce and digital and print submissions; it shall be conducted by a jury comprising of the external and internal examiners. If an external examiner is unable to come, alternate examiner (including those of the same University department) may be appointed by the Chairperson of the concerned department with the intimation to the Controller of Examinations in the following preferential order:

i) From outside ii) From DCRUST Murthal

**(e) Thesis:**

Portfolio evaluation of thesis will be through viva voce and digital and print submissions. It shall be conducted by a jury comprising of two external examiners, thesis guide and Chairperson. Two external examiners shall be selected by the Vice-Chancellor from a panel of examiners supplied by the Chairperson of the Department and duly approved by the Board of Post Graduate Studies and Research of the Department. Both the examiners shall be called by the Department to conduct the thesis viva voce and in case of her/his refusal, the Vice-Chancellor, on the recommendation of the Chairperson of the Department shall appoint, another set of external examiners from the panel.

**2.7 Dissertation**

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

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

**(c)** The dissertation shall be prepared as per guidelines given in the dissertation manual. Nevertheless, the typing shall be done on both sides of the paper, the font size should be 12

point Times New Roman in 1.5 (one and a half) space but the reference and bibliography should be typed in single space in Harvard style. The paper to be used should be A-4 size and orientation should be portrait.

## **2.8 Thesis**

(a) A candidate shall prepare her/his thesis under the supervision of a faculty of the Department. The guide shall be appointed by the Chairperson of the department in consultation with the faculty members. M. U. R. P. coordinator and the Chairperson will not act as guide for any student. The topic of thesis wherever applicable, will be approved by a committee (Thesis Monitoring Committee) headed by the Chairperson of the department consisting of a Professor (Associate Professor, if professor is not available in the department) and guide(s) of the candidate.

(b) Any joint guide (Intra-departmental, Inter-departmental, External Institution or Industry), may also be associated in supervision, if desirable, but the reasons for recommendation of joint guide will be recorded in the Thesis Allotment proceedings. The inter-departmental or external guide can be appointed only as a joint guide and her/his prior written consent shall be submitted by the candidate to the Department.

(c) M. U. R. P. coordinator will coordinate all the internal stages in consultation with the Chairperson of the Department.

(d) No part of the thesis or supplementary published work should have been submitted elsewhere for the award of any other degree.

(e) A candidate shall submit her/his thesis at the end of the IV semester. The result of Thesis shall be declared only after the candidate has passed all the courses. In case a candidate's Thesis is rejected or she or he is unable to complete it within the prescribed period for her/his category, she or he may be allowed extension by the Vice-Chancellor on the recommendation of the chairperson, up to the limits prescribed for completion of degree by a candidate. However, she or he has to register each semester depositing continuation fee as decided by the University.

(f) The candidate shall be required to submit three soft bound copies of thesis as and when specified in the Scheme of Studies to the department. The candidate is required to submit the corrected copy of the thesis in hard bound with in two weeks after the viva -voce.

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

(h) The student will present her/his thesis work before the jury and the jury will award the marks. A student scoring 'F' grade in the viva voce exam shall have to resubmit her/his thesis after making all corrections/improvements & this thesis shall be evaluated as above in subsequent semester.

## **2.9 Eligibility for appearing in end semester examination**

(a) A candidate has attended regularly the prescribed courses of studies for the relevant semester examination in the department recognized by the University for the degree of Master of Urban and Rural Planning.

(b) A candidate has passed with 40% marks in the sessional of the prescribed courses of studies for the relevant semester examination in the department recognized by the University for the degree of Master of Urban and Rural Planning

(c) A candidate has his/her name submitted to the Controller of Examinations by the Chairperson of the department.

(d) A candidate has a good moral character (certificate be issued by the chairperson of the department concern if required).

(e) A candidate has attended not less than 75% of the total classes held in each theory/studio/seminar/ dissertation/thesis etc. This requirement shall be fulfilled separately for each subject of study. A deficiency up to 10% may be condoned by the Chairperson of the department. A further condonation of 5% in attendance may be allowed in severe/ compassionate circumstances by the Vice-Chancellor. However it may not be treated as a matter of right by the students. (In case a student fails to fulfill the necessary requirement of the attendance in any subject(s) in any semester, he/ she shall not be promoted to next semester and will have to repeat that academic semester in the next academic session along with regular students.)

(f) A candidate whose result declaration is delayed for no fault of her/his or has applied for reevaluation may attend classes of the next higher semester provisionally at her/his own risk and responsibility subject to her/his passing the concerned semester examination. Such a candidate shall also be governed by the clause 2.10. In case the candidate fails to pass the concerned Semester Examination, her/his attendance and studies in the next higher semester in which she or he was allowed to attend classes provisionally, shall stand cancelled.

## **2.10 Reappear**

(a) The examinations for reappear in any subject(s) in the subsequent semester.

(b) If a candidate, after attending the classes for the course of studies in the Department has either not appeared or having appeared in any semester examination has failed in one or more paper(s) for that examination, she or he can appear for such paper(s) at subsequent examinations without attending a fresh course of studies for that semester. Such a candidate may, in the meantime, pursue her or his studies for the next semester(s) and appear in the examination(s) for the same along with the examination for the lower semester(s).

(c) A candidate shall be automatically eligible for promotion to the next semester provided he/she fulfils the other essential eligibility criterion for promotion as mentioned in the ordinance.

## **2.11 Fees**

The amount of Exam/Reappear/ Re-evaluation/ Improvement fee to be paid by the candidates shall be as prescribed by the University from time to time. A candidate who has paid dues for the higher class and is dropped for want of fulfillment of any of the above conditions shall not be required to pay his dues again on re-admission after fulfillment of above conditions.

## **2.12 Re-evaluation**

Re-evaluation is permitted only for end semester examination (Theory course) as per University rules. There will be no reevaluation for portfolio examination.

A candidate, who is unable to pass the Master of Urban and Rural Planning courses within a maximum of four consecutive academic years from the date of his/her admission shall lose

the right to pursue the degree programme. In exceptional cases, mercy chance can be given by the Vice-Chancellor to a candidate if he/she applies.

**2.13** The minimum passing marks/grade for passing any semester Examination shall be:

(a) 40% in each end semester examination (theory paper) of the subject.

(b) 40% in the sessional and the theory in each subject.

(c) 40% each Portfolio/Viva-Voce Examination.

(d) SGPA of 4.0

(e) 40% in sessional for courses like independent study seminar (where no external exam is being conducted).

A candidate who fails to obtain the requisite marks/grade in any course shall be required to appear in the concerned course in the subsequent examination(s) as per the clause 2.10.

A candidate who fails to appear in Portfolio examination viva voce, the student shall be marked as absent and shall be required to appear in the concerned course in the subsequent examination(s) as per the clause 2.10.

**2.14** The result of a student at the end of each semester Examination and after completion of course shall be declared on the basis of the SGPA & CGPA (cumulative grade point average) obtained by the student.

**2.15** At the end of each semester examination, the Controller of Examination shall publish the result, provided that in a case where candidate who was permitted to take examination for higher semester but has not cleared the lower semester examination his result for the higher semester examination will be declared provisionally. Each successful candidate shall be issued a copy of the result card on having passed the semester examination.

**2.16** If a candidate has completed his/her degree with a CGPA  $\leq 6.5$  and she/he wants to improve her/his grade, she/he may be allowed to improve by depositing the requisite fee as per the University Rules. She/he is allowed to appear in at the most half of the theory papers only of a semester along with the regular candidates of that semester and the sessional part will be retained. Such opportunity may be given only twice in succession, subject to the condition that she/he have to complete the degree within 4 consecutive years of her/his registration. If the improved CGPA is less than the original, then the original will be retained.

**2.17** Notwithstanding the integrated nature of the course wherever it is spread over more than one academic year, the Ordinance in force at the time a student joins the course shall hold good only for the examination held during or at the end of the semester and nothing in this Ordinance shall be deemed to debar the University from amending the Ordinance and the amended Ordinance, if any, shall apply to all students whether old or new.

### **3. Scholarship**

Scholarship may be awarded to students as per the terms and conditions stipulated by the funding agencies. However, it should be mentioned in the prospectus.

### **4. The Credit System**

Each Academic Program has a certain number of credits which describe its weightage. A student's performance is measured by the number of credits that she/he has completed satisfactorily. A minimum grade point average is required to be maintained for satisfactory progress.



Each subject (component) has a certain number of credits which reflect its weightage and is normally decided on the basis of effective contacts hours. It is mentioned in the scheme of studies and examinations.

**4.1** The semester examination for all the semesters shall ordinarily be held in the month of December/January and also in the month of May/June, on such dates as may be fixed by University authority. The concerned teacher/ M. U. R. P. coordinator should ensure that 100% syllabus is covered in each subject before the Semester Examination.

**4.2** The marks/grade awarded to a student in any particular subject will be based on the performance of the student evaluated throughout the semester. The syllabus of the minor tests will be what is covered in that particular term. The Semester Examination will be based on the entire syllabus.

**4.3** The marks/grades will be displayed on the notice board of the department by M. U. R. P. coordinator with the approval of the Chairperson before forwarding it to the Examination Branch.

**4.4** The Chairperson of the department shall forward the awards/grades to the Examination Branch within a week after the semester ends and examination process starts. The evaluated answer sheets of minor tests are to be kept by the M. U. R. P. coordinator for at least one year. The Examination Branch will keep the evaluated answer sheets of the semester examination for at least one year.

## **5. Grading Systems**

For the award of grades in a subject, all component-wise evaluation shall be done in marks. The marks would be converted to grades as per the guidelines given below:

### **5.1 Award of Grades Based on Absolute Marks**

The University will follow system of grading for all (irrespective of no. of students) based on absolute marks (after applying moderation if any) as given below:

<b><u>Range of Marks (%)</u></b>	<b><u>Grade</u></b>
90 to 100	A+
80 to 89	A
70 to 79	B+
62 to 69	B
55 to 61	C+
46 to 54	C
40 to 45	D
Less than 40	F

#### **Note:**

(i) The awards/grades shall be submitted by the teacher concerned through M. U. R. P. coordinator to the Chairperson of the department. The awards/grades should be finalized within 7 days of the semester examination.

(ii) In case of any difficulty/issue related to courses/conduct/moderation of awards/grades/reconduct of paper, the matter will be referred to a departmental monitoring committee comprising of Chairperson, senior most teachers by rotation, M. U. R. P. coordinator and faculty nominee of the Dean. The committee will be headed by the chairperson. The committee, on receipt of complaint either from the student or from the

teacher, shall meet at the earliest and will give its decision within one week. The decision of the committee shall be final subject to approval of the Vice Chancellor.

## 5.2 Grade Points

The grading point of academic performance will be as under:

Academic Performance	Grades	Grade Points
Outstanding	A+	10
Excellent	A	9
Very Good	B+	8
Good	B	7
Average	C+	6
Below Average	C	5
Marginal	D	4
Very Poor	F	0
Absent	G	-
Incomplete Dissertation	X	-

### Note:

1. Pass Grade is Grade D and higher grades
2. Grade F are Fail grades

### 'F' Grade

The **F** grades denote poor performance, i.e. failing a subject (or subject component). A student has to repeat all those components of a subject(s), in which she/he obtains 'F' grades, until a passing grade is obtained, within the stipulated time of completion of that programme as mentioned in clause 1(a)

### 'G' Grade

If a student, who is otherwise eligible for appearing in the semester examination as per the ordinance, but can not appear in the semester examination then s/he will be awarded 'G' grade. The candidate will be allowed to take up the examination next time along with regular students and s/he will be awarded the grade as per grade system explained above.

### Continuous Absence

If a student is continuously absent from the Department for more than four weeks without intimation to the Chairperson of Department, her/his name will be struck off from the roll of the department. The re-admission shall not be allowed to the candidate during the same academic session.

### 'X' Grade

This grade is awarded for incomplete Thesis work as per guidelines given below and will be converted to a regular grade on the completion of the Thesis work and its evaluation.

A student who is unable to complete her/his Thesis may be awarded an 'X' grade by the Chairman/Chairperson on the recommendation of his/her guide.

A student who has been awarded 'X' grade shall be required to formally register for the next semester and pay the requisite fee.

'X' grade will be awarded in exceptional circumstances beyond student's/supervisor's control. Normally, the following grounds may be considered for the award of 'X' grade:

- (i) Technical reasons/grounds such as Guide/equipment not being available.

(ii) Any other reason to the satisfaction of guide.

### 5.3 Evaluation of Performance

The performance of a student will be evaluated in terms of Cumulative Grade Point Average (CGPA) which is the Grade Point Average for all the completed semesters at any point of time.

The CGPA is calculated on the basis of all pass grades, except audit courses, obtained in all completed semesters.

$$CGPA = \frac{\sum_{\text{sem}} (\text{Course credits} \times \text{Grade point}) \text{ for courses with pass grade except audit courses}}{\sum_{\text{sem}} (\text{Course credits}) \text{ of courses with pass grade except audit courses}}$$

An example of these calculations is given below:

#### I Semester

Course No. (1)	Course Credits (2)	Grade Awarded (3)	Earned Credits (4)	Grade Points (5)	Point Secured (6)
MALXXX	5	C+	5	6	30
CSLXXX	4	C	4	5	20
PHLXXX	4	A+	4	10	40
PHPXXX	1.5	B+	1.5	8	12
MELXXX	4	F	0	0	00
AMLXXX	4	B	4	7	28

Credits registered in the semester (total of column 2) = 22.5

Earned Credits in the semester

Total of column 4 (total of column 2 excluding F grade) = 18.5

Point secured in this semester in passed courses = 130

$$SGPA/CGPA = \frac{\text{Points secured in passed courses}}{\text{Credits earned}} = \frac{130}{18.5} = 7.027$$

#### II Semester

Course No. (1)	Course Credits (2)	Grade Awarded (3)	Earned Credits (4)	Grade Points (5)	Point Secured (6)
MALXXX	5	D	5	4	20
EELXXX	5	F	0	0	00
CYLXXX	4	B	4	7	28
CYPXXX	1.5	C+	1.5	6	09
MELXXX	4	A	4	9	36
HULXXX	2	AP	2	N.A.	00

Credits registered in the semester (total of column 2) = 21.5

Earned Credits in the semester

Total of column 4 (total of column 2 excluding F&AP grades) = 14.5

Cumulative Earned Credits (earned credits in previous semesters and current semester) = 18.5+14.5=33.0

Points Secured in this semester in passed courses = 93

Cumulative points secured (total of point secured in previous semesters and current semester)  
= 130 + 93 = 223

$$\text{CGPA} = \frac{\text{Cumulative points secured in all passed courses}}{\text{Cumulative earned credits ,excluding audit courses}} = \frac{130+93}{18.5+14.5} = 6.757$$

Each successful candidate shall be issued a copy of the result card on having passed the semester examination.

### **Conversion of CGPA into Marks**

The CGPA if multiplied by 9.5 will give the equivalent marks in percentage.

Candidates who pass all the prescribed subjects for all the semesters, but obtained:-

- |                                     |   |
|-------------------------------------|---|
| (i) Less than CGPA of 5.26          | Pass class  |
| (ii) $5.26 \leq \text{CGPA} < 6.32$ | 2 <sup>nd</sup> Division  |
| (iii) $6.32 \leq \text{CGPA} < 7.9$ | 1 <sup>st</sup> Division  |
| (iv) CGPA of 7.9 or more            | 1 <sup>st</sup> Division with Distinction provided that they have passed all the semester examinations in single sitting within the normal period of course and without reappear in any paper throughout the programme. Will be awarded aforesaid division. |

**DEENBANDHU CHHOTU RAM UNIVERSITY OF SCIENCE & TECHNOLOGY**  
**MURTHAL (SONEPAT)**  
**SCHEME OF STUDIES & EXAMINATION FOR MASTER OF URBAN & RURAL**  
**PLANNING**  
**Full Time (Two Year)**  
**SEMESTER I**

S.No.	Course No.	Course Title	Teaching Schedule		Marks of Class work	Exam. Marks		Total marks	Credit	Duration of Exam
			L	P		Theory	Portfolio			
1.	MURP 601	Planning Studio I		6	100		100	200	6	-
2.	MURP 603	Planning History and Theory	4		75	75		150	4	3
3.	MURP 605	Socio-economic basis for Planning	4		75	75		150	4	3
4.	MURP 607	Planning Techniques	4		75	75		150	4	3
5.	MURP 609	Infrastructure and Transport Planning	4		75	75		150	4	3
6.	MURP 611	Urban and Rural Housing and Environmental Planning	4		75	75		150	4	3
<b>Total</b>			<b>20</b>	<b>6</b>	<b>475</b>	<b>375</b>	<b>100</b>	<b>950</b>	<b>26</b>	

**SEMESTER II**

S.No.	Course No.	Course Title	Teaching Schedule		Marks of Class work	Exam. Marks		Total marks	Credit	Duration of Exam
			L	P		Theory	Portfolio			
1.	MURP 602	Planning Studio II		6	100		100	200	6	-
2.	MURP 604	City and Metropolitan Planning	4		75	75		150	4	3
3.	MURP 606	Project Planning and Management	4		75	75		150	4	3
4.	MURP 608	Urban development Management	4		75	75		150	4	3
5.	MURP 610	Advanced Planning Techniques	4		75	75		150	4	3
6.		Elective I	4		75	75		150	4	3
7.	MURP 620	Practical Training	-	-	60		40	100	2	-
<b>Total</b>			<b>20</b>	<b>6</b>	<b>535</b>	<b>375</b>	<b>140</b>	<b>1050</b>	<b>28</b>	

**ELECTIVE – I** (One out of three subjects shall be chosen)

MURP 612 Inclusive Urban Planning

MURP 614 Planning for Tourism

MURP 616 Urban Heritage Conservation

MURP 618 Urban Governance

**DEENBANDHU CHHOTU RAM UNIVERSITY OF SCIENCE & TECHNOLOGY,  
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**SEMESTER III**

S.No.	Course No.	Course Title	Teaching Schedule		Marks of Class work	Exam. Marks		Total marks	Credit	Duration of Exam
			L	P		Theory	Portfolio			
1.	MURP 701	Planning Studio III		6	150		150	300	6	-
2.	MURP 703	Rural development and infrastructure planning	4		75	75		150	4	3
3.	MURP 705	Legal Issues and Professional Practice	4		75	75		150	4	3
4.		Elective III	4		75	75		150	4	3
5.	MURP 715	Dissertation		4	75	-	75	150	4	-
<b>Total</b>			<b>12</b>	<b>10</b>	<b>450</b>	<b>225</b>	<b>225</b>	<b>900</b>	<b>22</b>	

**ELECTIVE – III** (One out of three subjects shall be chosen)

MURP 707 Environment, Development and Disaster Management

MURP 709 Energy, Climate change and Urban Development

MURP 711 Development Finance

MURP 713 Community issues in planning

**SEMESTER IV**

S.No.	Course No.	Course Title	Teaching Schedule		Marks of Class work	Exam. Marks		Total marks	Credit	Duration of Exam
			L	P		Theory	Portfolio			
1.	MURP 702	Planning Thesis Project		20	250		250	500	20	-
<b>Total</b>				<b>20</b>	<b>250</b>		<b>250</b>	<b>500</b>	<b>20</b>	

Teaching Schedule		Marks of Sessional work	Marks of Examination		Total marks	Credits	Duration of Examination (h)
L	P		Theory	Portfolio			
-	6	100	-	100	200	6	-

**CONTENT:**

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

**EXERCISE I:**

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

Minimum Requirements:

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

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

**EXERCISE II:**

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

The items to be submitted may include.

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

**NOTE:**

Detailed teaching programme to be made and circulated to the students at the commencement of the semester.

This exercise needs to be supported by frequent site visits & detailed case studies.

There should be regular presentations of various internal stages.

I	Sessional evaluation	Weightage
	Seminar	20 %
	Programme formulation	20%
	Concept	20 %
	Preliminary Design	40%
II	Portfolio evaluation	
	Detail Design	100%

Teaching Schedule		Marks of Sessional work	Marks of Examination		Total marks	Credits	Duration of Examination (h)
L	P		Theory	Portfolio			
4	-	75	75	-	150	4	3

**CONTENT:****UNIT I: Evolution of City Building**

Relevance of the study of evolution of settlements; Hunter, gatherer, farmer and formation of organized society; Cosmological and other influences, origins and growth of cities, effects of cultural influence on physical form; Human settlements as an expression of civilizations; Basic elements of the city; Concepts of space, time, scale of cities.

**UNIT II: Planning History**

Town planning in ancient India; Medieval, renaissance, industrial and post industrial cities; City as a living spatial entity; Concepts of landmark, axis, orientation; City form as a living space; City as a political statement: New Delhi, Chandigarh, Washington D.C. Brasilia etc; Contribution of individuals to city planning: Lewis Mumford, Patrick Geddes, Peter Hall, etc; Dynamics of the growing city, impact of industrialization and urbanization, metropolis and megalopolis.

**UNIT III: Definitions and Objectives of Planning**

Definitions of town and country planning; Orthodoxies of planning; Goal formulation, objective, scope, limitations; Sustainability and rationality in planning; Components of sustainable urban and regional development. Planning concept in India, ancient, Pre independence and post independence development. Aims and objectives of planning Levels of planning in India and their interrelationships, Planning Administration.

**UNIT IV: Theories of City Development and Planning Theories**

Theories of city development including Concentric Zone Theory, Sector Theory, Multiple Nuclei Theory and other latest theories; Land use and land value theory of William Alonso; Ebenezer Howard's Garden City Concept; and Green Belt Concept; City as an organism: a physical, social, economic and political entity; Emerging Concepts: global city, inclusive city, safe city, etc.; City of the future and future of the city; Shadow cities, divided cities; Models of planning: Advocacy and Pluralism in Planning; Systems approach to planning: rationalistic and incremental approaches, mixed scanning and middle range planning; Equity planning; Political Economy Model; Types of development plans, plan making process.

**NOTE:**

The subject teacher would make detailed teaching programme along with extensive reading and circulate to the students at the commencement of the semester.

I	Sessional evaluation	Weightage
	Minor Test – I	20%
	Minor Test – II	20%
	Assignment / Mini Project / Term paper	30%
	Quiz/Tutorial/Class Test	30%
II	Theory examination	100%

**INSTRUCTIONS TO QUESTION PAPER SETTER:**

- Exam shall be of 3 hours duration and of maximum marks: 75. (minimum passing marks:30)
- Total EIGHT questions are to be set (two questions from each unit), and candidate have to attempt any five questions selecting one from each unit, each question of 15 marks each.
- The question paper should at least have one question with 3 subparts and three questions with 2 subparts.



Teaching Schedule		Marks of Sessional work	Marks of Examination		Total marks	Credits	Duration of Examination (h)
L	P		Theory	Portfolio			
4	-	75	75	-	150	4	3

**CONTENT:****UNIT I: Nature and Scope of Sociology**

Sociological concepts and methods, man and environment relationships; Socio-cultural profile of Indian society and urban transformation; Tradition and modernity in the context of urban and rural settlements; Issues related to caste, age, sex, gender, health safety, and marginalized groups; Displacement, resettlement and rehabilitation due to compulsory land acquisition.

**UNIT II: Community and Settlements**

Social problems of slums and squatters communities, urban and rural social transformation and their impact on social life, safety, security; Crimes in urban areas and their spatial planning implications, social structure and spatial planning; Role of socio-cultural aspects on growth patterns of city and neighbourhood communities; Social planning and policy, and community participation; Marginalization and concepts of inclusive planning, and gender concerns in planning. Settlement Policy: National Commission on Urbanization, Rural Habitat Policy and experiences from developing countries regarding settlement structure, growth and spatial distribution.

**UNIT III: Elements of Micro and Macro Economics**

Concepts of demand, supply, elasticity and consumer markets; concept of revenue costs; Economies of scale, economic and social costs, production and factor market; Different market structures and price determination; market failures, cost-benefit analysis, public sector pricing; Determinants of national income, consumption, investment, inflation, unemployment, capital budgeting, risk and uncertainty, and long-term investment planning.

**UNIT IV: Development Economics and Lessons from Indian Experiences**

Economic growth and development, quality of life; Human development index, poverty and income distribution, employment and livelihood; Economic principles in land use planning; Policies and strategies in economic planning, balanced versus unbalanced growth, public sector dominance; changing economic policies, implications on land.

**NOTE:**

The subject teacher would make detailed teaching programme along with extensive reading and circulate to the students at the commencement of the semester.

I	Sessional evaluation	Weightage
	Minor Test – I	20%
	Minor Test – II	20%
	Assignment / Mini Project / Term paper	30%
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Teaching Schedule		Marks of Sessional work	Marks of Examination		Total marks	Credits	Duration of Examination (h)
L	P		Theory	Portfolio			
4	-	75	75	-	150	4	3

**CONTENT:****UNIT I: Survey Techniques and Mapping**

Data base for physical surveys including land use, building use, density, building age, etc., and socio-economic surveys; Survey techniques; Land use classification or coding and expected outputs; Techniques of preparing base maps including understanding the concepts of scales, components and detailing for various levels of plans like regional plan, city plan, zoning plan, and local area plan.

**UNIT II: Analytical Methods**

Classification of regions, delineation techniques of various types of regions, analysis of structure of nodes, hierarchy, nesting and rank size; Scalogram, sociogram, etc.; Planning balance sheet; Threshold analysis; Input output analysis, SWOT analysis.

**UNIT III: Demographic Methods**

Sampling distributions. Introduction to statistical analysis and SPSS software. Methods of population forecasts and projections Techniques relevant for regions and settlements. Indian Population census data: An appraisal...Population change, Socio -economic dimension of development and pattern of human settlements. Lorenz Curve, Ginni Ratio, Theil's index, ratios: urban – rural, urban concentration, metropolitan concentration; Population, composition and spatial distribution; Location dimensions of population groups – social area and strategic choice approach – inter connected decision area analysis.

**UNIT IV: Planning Standards**

Spatial standards, performance standards and benchmarks, and variable standards; Analysis of spatial standards for different land use, community facilities in relation to demographic characteristics. Analysis of performance standards for industries UDPFI guidelines, zoning regulations and development control rules and regulations.

**NOTE:**

The subject teacher would make detailed teaching programme along with extensive reading and circulate to the students at the commencement of the semester.

I	Sessional evaluation	Weightage
	Minor Test – I	20%
	Minor Test – II	20%
	Assignment / Mini Project / Term paper	30%
	Quiz/Tutorial/Class Test	30%
II	Theory examination	100%

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Teaching Schedule		Marks of Sessional work	Marks of Examination		Total marks	Credits	Duration of Examination (h)
L	P		Theory	Portfolio			
4	-	75	75	-	150	4	3

**CONTENT:****UNIT I: Role of Infrastructure in Development**

Elements of Infrastructure (physical, social, utilities and services); Basic definitions, concepts, significance and importance; Data required for provision and planning of urban networks and services; Resource analysis, provision of infrastructure, and land requirements; Principles of resource distribution in space; Types, hierarchical distribution of facilities, Access to facilities, provision and location criteria, Norms and standards, etc.

**UNIT II: Planning and Management of Water, Sanitation and Storm Water**

Water – sources of water, treatment and storage, transportation and distribution, quality, networks, distribution losses, water harvesting, recycling and reuse, norms and standards of provision, institutional arrangements, planning provisions and management issues; sanitation – points of generation, collection, treatment, disposal, norms and standards, grey water disposal, DEWATS, institutional arrangements, planning provisions and management issues.

Storm water – rainfall data interpretation, points of water stagnation, system of natural drains, surface topography and soil characteristics, ground water replenishment, storm water collection and disposal, norms and standards, institutional arrangements, planning provisions and management issues;

**UNIT III: Planning and Management of Municipal Wastes, Power and Fire**

Municipal and other wastes – generation, typology, quantity, collection, storage, transportation, treatment, disposal, recycling and reuse, wealth from waste, norms and standards, institutional arrangements, planning provisions and management issues.

Power – Sources of power procurement, distribution networks, demand assessment, norms and standards, planning provisions and management issues. Fire – History of fire hazards, vulnerable locations, methods of fire fighting, norms and standards, planning provisions and management issues.

**UNIT IV: City Development and Transport Infrastructure Planning, Management and Design**

Role of transport, types of transport systems, evolution of transport modes, transport problems and mobility issues; Urban form and Transport patterns, land use – transport cycle, concept of accessibility; Hierarchy, capacity and geometric design elements of roads and intersections; Basic principles of Transport infrastructure design; Traffic and transportation surveys and studies, traffic and travel characteristics; Urban transport planning process – stages, study area, zoning, data base, concept of trip generation Transport, environment and safety issues; principles and approaches of traffic management, transport system management.

**NOTE:**

The subject teacher would make detailed teaching programme along with extensive reading and circulate to the students at the commencement of the semester.

I	Sessional evaluation	Weightage
	Minor Test – I	20%
	Minor Test – II	20%
	Assignment / Mini Project / Term paper	30%
	Quiz/Tutorial/Class Test	30%
II	Theory examination	100%

**INSTRUCTIONS TO QUESTION PAPER SETTER:**

- Exam shall be of 3 hours duration and of maximum marks: 75. (minimum passing marks:30)
- Total EIGHT questions are to be set (two questions from each unit), and candidate have to attempt any five questions selecting one from each unit, each question of 15 marks each.
- The question paper should at least have one question with 3 subparts and three questions with 2 subparts.

Teaching Schedule		Marks of Sessional work	Marks of Examination		Total marks	Credits	Duration of Examination (h)
L	P		Theory	Portfolio			
4	-	75	75	-	150	4	3

**CONTENT:****UNIT I: Concepts and Definitions**

Shelter as a basic requirement, determinants of housing form, Census of India definitions, introduction to policies, housing need, demand and supply, dilapidation, structural conditions, materials of constructions, housing age, occupancy rate, crowding, housing shortage, income and affordability, poverty and slums, houseless population

Various housing typologies viz. traditional houses, plotted development, group housing, multi-storied housing, villas, *chawls*, etc., slums and squatters, night shelters, public health issues related to housing, various theories of housing, concept of green housing, green rating of housing projects.

**UNIT II: Social and Economic Dimensions**

Housing as social security, role of housing in development of family and community well being, status and prestige related to housing, safety, crime and insecurity, deprivation and social vulnerability, ghettoism, gender issues, housing for the elderly. Contribution of housing to micro and macro economy, contribution to national wealth and GDP, housing taxation, national budgets, fiscal concessions, forward and backward linkages.

**UNIT III: Housing and the City**

Understanding housing as an important land use component of city plan / master plan, considerations for carrying out city level housing studies, projections, land use provisions; Suitability of land for housing, housing stress identification, projecting housing requirements, calculating housing shortages, housing allocation.

Approaches to neighbourhood living in traditional and contemporary societies, elements of neighbourhood structure, Planning and design criteria for modern neighbourhoods, norms and criteria for area distribution, housing and area planning standards, net residential density and gross residential density, development controls and building byelaws, UDPII guidelines, NBC 2005 provisions and Case studies of neighbourhood planning.

**UNIT IV: Rural Housing**

Issues, challenges and opportunities of rural housing, shortfall in rural housing as per 1991 census, National Housing and Habitat policy of 'housing for all, Indira Awas Yojna of the Government of India, provisions for below poverty line category, credit-cum-subsidy component of IAY, housing upgradation in rural areas (conversion of unserviceable kutch houses into semi-pucca/pucca houses), institutional mechanism for improved shelter delivery, role of Housing and Urban Development Corporation, Building Material Technology Promotion Council (BNTPC), Central Building Research Institute, district rural development agencies/zila parishads, Rural Building Centres, Non-government organization (NGO), proposal for National Mission for Rural housing, Rural Housing and Habitat Development Corporation, construction designs, materials and technologies for rural housing.

**NOTE:**

The subject teacher would make detailed teaching programme along with extensive reading and circulate to the students at the commencement of the semester.

I	Sessional evaluation	Weightage
	Minor Test – I	20%
	Minor Test – II	20%
	Assignment / Mini Project / Term paper	30%
	Quiz/Tutorial/Class Test	30%
II	Theory examination	100%

**INSTRUCTIONS TO QUESTION PAPER SETTER:**

- Exam shall be of 3 hours duration and of maximum marks: 75. (minimum passing marks:30)
- Total EIGHT questions are to be set (two questions from each unit), and candidate have to attempt any five questions selecting one from each unit, each question of 15 marks each.
- The question paper should at least have one question with 3 subparts and three questions with 2 subparts.

Teaching Schedule		Marks of Sessional work	Marks of Examination		Total marks	Credits	Duration of Examination (h)
L	P		Theory	Portfolio			
-	6	100	-	100	200	6	-

**CONTENT:**

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

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

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

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

The following planning issues at area level should be identified:

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

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

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

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

Minimum Requirements:

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

**NOTE:**

Detailed teaching programme to be made and circulated to the students at the commencement of the semester.

This exercise needs to be supported by frequent site visits & detailed case studies.

There should be regular presentations of various internal stages.

I	Sessional evaluation	Weightage
	Seminar	20 %
	Programme formulation	20%
	Concept	20 %
	Preliminary Design	40%
II	Portfolio evaluation	
	Detail Design	100%

Teaching Schedule		Marks of Sessional work	Marks of Examination		Total marks	Credits	Duration of Examination (h)
L	P		Theory	Portfolio			
4	-	75	75	-	150	4	3

**CONTENT:****UNIT I: Urban Growth and System of Cities**

Growth of cities scale, complexity and its impact on national development, cities as engines of growth, cities as ecosystems, resources in cities.

**UNIT II: City – Region Linkages**

City, fringe and the periphery - physical and functional linkages, peri-urban development.

**UNIT III: Metro and Mega Cities: Problems and Issues**

Growth trends and processes, characteristics, problems, concepts and concerns of urban sustainability, issues related to diversity and unintended growth, economic, social and environmental sustainability, quality of life, inclusivity and equity, climate change, transit oriented development, participatory planning. Inner city – issues and problems, approach to development.

**UNIT IV: Human Settlement Planning, Urban Development Policies and Programmes**

Concepts, approaches, strategies and tools; Policies and programmes at various levels, impact on metro and mega city development.

**NOTE:**

The subject teacher would make detailed teaching programme along with extensive reading and circulate to the students at the commencement of the semester.

I	Sessional evaluation	Weightage
	Minor Test – I	20%
	Minor Test – II	20%
	Assignment / Mini Project / Term paper	30%
	Quiz/Tutorial/Class Test	30%
II	Theory examination	100%

**INSTRUCTIONS TO QUESTION PAPER SETTER:**

- Exam shall be of 3 hours duration and of maximum marks: 75. (minimum passing marks:30)
- Total EIGHT questions are to be set (two questions from each unit), and candidate have to attempt any five questions selecting one from each unit, each question of 15 marks each.
- The question paper should at least have one question with 3 subparts and three questions with 2 subparts.

Teaching Schedule		Marks of Sessional work	Marks of Examination		Total marks	Credits	Duration of Examination (h)
L	P		Theory	Portfolio			
4	-	75	75	-	150	4	3

**CONTENT:****UNIT I: Project planning**

Introduction to Projects; Nature of planning projects; Project Life Cycle; Identification of projects

**UNIT II: Project Formulation and Appraisal**

Relationship between projects and planning issues including sectoral policy at: Local, State and National levels Project appraisal: Market analysis – Macro environment survey, survey methods, market characterization, demand forecasting; Technical Analysis – Magnitude, processes, materials, equipment, factors of production availability, implementation schedule; suitability of the plans, layout and design, location of the project; location analysis; supporting infrastructure requirements- Capital Budgeting – Estimation of costing of components; developing over project cost; Social cost benefit analysis – UNIDO, Merles, ZOPP/GOPP, etc

**UNIT III: Project Management and Implementation, and Project Evaluation and Monitoring**

Project characteristics - pitfalls in management of a project; Techniques of management; Planning milestones - responsibility charts and principle responsibility, principles of activity planning; Project Implementation – methods, hurdles, facilitative factors; Project culture: line management, steering committee, role of project manager; Project Control: cost and time, quality - ISI standards and its application to Indian context; Introduction to Project Management Software (Ms Projects) and its usage. Types of evaluation - concurrent, ex-ante and ex-post. Methods of evaluation, techniques of evaluation, end results, Presentation of evaluation findings, Techniques of Monitoring of Development Works.

**UNIT IV: Regulatory Frameworks Governing Projects**

National Rehabilitation and Resettlement Policy (2007) - Social Impact mitigation; National Environmental Policy (2006) – Environmental Impact Assessment (EIA) and Environmental Management Plan (EMP)

**NOTE:**

The subject teacher would make detailed teaching programme along with extensive reading and circulate to the students at the commencement of the semester.

I	Sessional evaluation	Weightage
	Minor Test – I	20%
	Minor Test – II	20%
	Assignment / Mini Project / Term paper	30%
	Quiz/Tutorial/Class Test	30%
II	Theory examination	100%

**INSTRUCTIONS TO QUESTION PAPER SETTER:**

- Exam shall be of 3 hours duration and of maximum marks: 75. (minimum passing marks:30)
- Total EIGHT questions are to be set (two questions from each unit), and candidate have to attempt any five questions selecting one from each unit, each question of 15 marks each.
- The question paper should at least have one question with 3 subparts and three questions with 2 subparts.

Teaching Schedule		Marks of Sessional work	Marks of Examination		Total marks	Credits	Duration of Examination (h)
L	P		Theory	Portfolio			
4	-	75	75	-	150	4	3

**CONTENT:****UNIT I: Introduction to Development Management**

Concept, approaches, components, interface with national goals and political economic system.

**UNIT II: Urban Development Management**

Strategies, Tools and Techniques; organizations involved

**UNIT III: Land and Real Estate Development**

Economic concepts of land, Land Pricing / valuation; Economic principles of land use; demand forecasting for land use; factors affecting land supply and demand; Land development methods, Supply Management, Demand side Management; Real estate markets, type of property development and its impact on supply and demand, method of development, environmental considerations.

**UNIT IV: Information System and Urban Reforms**

Spatial and Non - spatial information systems; Urban reforms and acts and policies.

**NOTE:**

The subject teacher would make detailed teaching programme along with extensive reading and circulate to the students at the commencement of the semester.

I	Sessional evaluation	Weightage
	Minor Test – I	20%
	Minor Test – II	20%
	Assignment / Mini Project / Term paper	30%
	Quiz/Tutorial/Class Test	30%
II	Theory examination	100%

**INSTRUCTIONS TO QUESTION PAPER SETTER:**

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Teaching Schedule		Marks of Sessional work	Marks of Examination		Total marks	Credits	Duration of Examination (h)
L	P		Theory	Portfolio			
4	-	75	75	-	150	4	3

**CONTENT:****UNIT I: Survey Techniques**

Data Base for Physical surveys (including land use / building use / density / building age, etc.) and Socio-economic surveys; Questionnaire formulation, Sampling and survey techniques, etc. Land use classification / coding.

**UNIT II: GIS Mapping**

Coordinate system, Georeferencing and geo-coding; GIS data processing (Digitization, topology building and metadata creation), Data structures and modeling, GIS analysis (Buffer, proximity and overlay), Decision making through GIS, Information systems (Land Information system, Urban Information system for various activity sectors).

**UNIT III: Research Design and implementation**

Approaches in research, developing a method for research; Questionnaire Design, Types of data, sampling methods; developing aims, objectives, scope, limitations; and literature research – using library, accessing the Internet

**UNIT IV: Analytical Techniques, Presentation and Report Writing**

Data tabulation; Interpretation of information; Graphical presentation of data; Spatial representation of data; Types of reports with specific focus on technical report writing; Organizing the report, structure chapter organization, Writing the report (analytical findings); Referencing in text, use of software in referencing

**NOTE:**

The subject teacher would make detailed teaching programme along with extensive reading and circulate to the students at the commencement of the semester.

I	Sessional evaluation	Weightage
	Minor Test – I	20%
	Minor Test – II	20%
	Assignment / Mini Project / Term paper	30%
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- The question paper should at least have one question with 3 subparts and three questions with 2 subparts.

Teaching Schedule		Marks of Sessional work	Marks of Examination		Total marks	Credits	Duration of Examination (h)
L	P		Theory	Portfolio			
2	-	60		40	100	2	-

**INTENT:** The course intends to give insight into Planning practice

**CONTENT:**

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

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

**NOTE:**

Detailed Training manual to be made and circulated to the students at the commencement of the semester. Trainee must attach the certified copies of the work carried out by him/ her as an annexure in the report.

	Evaluation	Weightage
<b>I</b>	<b>Sessional evaluation</b>	
	Training report	60%
<b>II</b>	<b>Portfolio evaluation</b>	
	Viva voce	40%

Teaching Schedule		Marks of Sessional work	Marks of Examination		Total marks	Credits	Duration of Examination (h)
L	P		Theory	Portfolio			
4	-	75	75	-	150	4	3

**CONTENT:****UNIT I: Understanding Inclusive Planning**

Definitions and components

**UNIT II: Stakeholders Profile and Needs, Access to Shelter, Services and Livelihoods**

Urban Poor, Informal Sector, Gender, Children, Elderly, Disabled, Displaced people, etc.; Slums - dimensions, causative factors, determinants, location characteristics of settlements; Informal sector - growth, characteristics, functions, economic contributions, linkages with formal sector, impact on Urban Development

**UNIT III: Participatory Planning Process and Policies, Programmes and Legislation**

Methods, role of stakeholders (including civil society organizations), etc.; Related Acts, Five year plans, policies and programmes at various levels.

**UNIT IV: Planning interventions**

Inclusive zoning, development and building regulations, Slum Improvement.

**NOTE:**

The subject teacher would make detailed teaching programme along with extensive reading and circulate to the students at the commencement of the semester.

I	Sessional evaluation	Weightage
	Minor Test – I	20%
	Minor Test – II	20%
	Assignment / Mini Project / Term paper	30%
	Quiz/Tutorial/Class Test	30%
II	Theory examination	100%

**INSTRUCTIONS TO QUESTION PAPER SETTER:**

- Exam shall be of 3 hours duration and of maximum marks: 75. (minimum passing marks:30)
- Total EIGHT questions are to be set (two questions from each unit), and candidate have to attempt any five questions selecting one from each unit, each question of 15 marks each.
- The question paper should at least have one question with 3 subparts and three questions with 2 subparts.

Teaching Schedule		Marks of Sessional work	Marks of Examination		Total marks	Credits	Duration of Examination (h)
L	P		Theory	Portfolio			
4	-	75	75	-	150	4	3

**CONTENT:****UNIT I: Introduction to Tourism**

Definitions, scope, nature, classification and dimension, tourism as an industry, tourism in developed and developing world.

**UNIT II: Tourism Sector – Impacts**

Relationship between Tourism and Urban Development, Tourism multiplier and forecasting methods: capacity building and carrying capacity planning for tourism projects, tourism and cultural and social change: Socio-cultural problems, environmental degradation.

**UNIT III: Planning for Tourism**

Nature and scope of a tourism plan- key issues and stages, data requirements, surveys, role of key players / stake holders in tourism policy and planning, sustainable tourism development planning; community planning and tourism; implementation and management, role of travel and tourism promoting agencies, monitoring the tourism development; Tourism marketing - concept, techniques and strategies.

**UNIT IV: Policies and Programmes**

Tourism policies at various levels.

**NOTE:**

The subject teacher would make detailed teaching programme along with extensive reading and circulate to the students at the commencement of the semester.

I	Sessional evaluation	Weightage
	Minor Test – I	20%
	Minor Test – II	20%
	Assignment / Mini Project / Term paper	30%
	Quiz/Tutorial/Class Test	30%
II	Theory examination	100%

**INSTRUCTIONS TO QUESTION PAPER SETTER:**

- Exam shall be of 3 hours duration and of maximum marks: 75. (minimum passing marks:30)
- Total EIGHT questions are to be set (two questions from each unit), and candidate have to attempt any five questions selecting one from each unit, each question of 15 marks each.
- The question paper should at least have one question with 3 subparts and three questions with 2 subparts.

Teaching Schedule		Marks of Sessional work	Marks of Examination		Total marks	Credits	Duration of Examination (h)
L	P		Theory	Portfolio			
4	-	75	75	-	150	4	3

**CONTENT:****UNIT I: Introduction to Urban Heritage**

Typology / classification, inventories, mapping; Human habitation in historical context; Heritage as a motivating force in sustainable urban conservation and development,

**UNIT II: Heritage Conservation**

Natural heritage conservation - typologies, policies for conservation, regulatory measures, community participation; Concept of Historic Urban Landscapes; Built heritage conservation - determinants of built form on heritage; Historic urban infrastructure and traditional water harvesting systems. Integration of historic monuments / areas / cores / urban systems in the developmental process and land use, regulatory measures and commUNITY involvement; Intangible cultural heritage and development: issues, conservation strategies. Preparation of conservation and heritage management plans.

**UNIT III: Heritage and Tourism, Policies and Programmes, Legislation**

Cultural and heritage based tourism - nature, potential and prospects, marketing aspects; Acts and laws recognizing conservation / regeneration; Heritage toolkit; Implications of 74th Constitution Amendment Act.

**UNIT IV: Design in Human Habitation**

Social / cultural / ecological / energy determinants of design; Imagibility of the city; Structure of urban spaces – location criteria of activities and urban uses; Urban Regeneration, renewal, rehabilitation, revitalization, reconstruction and redevelopment - concepts, interventions, processes, approaches and methods, tools.

**NOTE:**

The subject teacher would make detailed teaching programme along with extensive reading and circulate to the students at the commencement of the semester.

I	Sessional evaluation	Weightage
	Minor Test – I	20%
	Minor Test – II	20%
	Assignment / Mini Project / Term paper	30%
	Quiz/Tutorial/Class Test	30%
II	Theory examination	100%

**INSTRUCTIONS TO QUESTION PAPER SETTER:**

- Exam shall be of 3 hours duration and of maximum marks: 75. (minimum passing marks:30)
- Total EIGHT questions are to be set (two questions from each unit), and candidate have to attempt any five questions selecting one from each unit, each question of 15 marks each.
- The question paper should at least have one question with 3 subparts and three questions with 2 subparts.

Teaching Schedule		Marks of Sessional work	Marks of Examination		Total marks	Credits	Duration of Examination (h)
L	P		Theory	Portfolio			
4	-	75	75	-	150	4	3

**CONTENT:****UNIT I: Overview of Urban Governance**

Definition, concepts, components, government and governance, hierarchy and structure, forms of governance, process of inclusion and exclusion,

**UNIT II: Legislations pertaining to Urban Governance**

Institutional frame and mechanism for urban governance as envisaged in the 73rd and 74th Constitution Amendment Acts.

**UNIT III: Institutions and Organizations**

Differences between institutions and organizations; approaches to understanding organizations; types, structure and functions, their interface and conflicts, reach, and their effectiveness; Methods, process and evaluation; Present organizations and involved in urban governance.

**UNIT IV: Urban Local Governance and Participatory Processes**

System, structure, functions, powers, process and resource, performance, interface with NGO's, other agencies. Stakeholders' participation, roles and responsibilities, access to government by various stakeholders.

**NOTE:**

The subject teacher would make detailed teaching programme along with extensive reading and circulate to the students at the commencement of the semester.

I	Sessional evaluation	Weightage
	Minor Test – I	20%
	Minor Test – II	20%
	Assignment / Mini Project / Term paper	30%
	Quiz/Tutorial/Class Test	30%
II	Theory examination	100%

**INSTRUCTIONS TO QUESTION PAPER SETTER:**

- Exam shall be of 3 hours duration and of maximum marks: 75. (minimum passing marks:30)
- Total EIGHT questions are to be set (two questions from each unit), and candidate have to attempt any five questions selecting one from each unit, each question of 15 marks each.
- The question paper should at least have one question with 3 subparts and three questions with 2 subparts.

Teaching Schedule		Marks of Sessional work	Marks of Examination		Total marks	Credits	Duration of Examination (h)
L	P		Theory	Portfolio			
-	6	100	-	100	200	6	-

**CONTENT:****EXERCISE: Village/ Block development plan**

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

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

Formulate projects, work out the appraisals and do the feasibility, viability and implementation mechanisms of the projects. Case study village/ block, and collect data and interact with village panchayats and stakeholders.

Prepare a Detailed Project Report (DPR) for any component/s of rural infrastructure. The scope of DPR shall be confined to cover all the stages of project preparation including:

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

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

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

The following planning issues at area level should be identified:

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

**NOTE:**

Detailed teaching programme to be made and circulated to the students at the commencement of the semester.

This exercise needs to be supported by frequent site visits & detailed case studies.

There should be regular presentations of various internal stages.

I	Sessional evaluation	Weightage
	Seminar	20 %
	Programme formulation	20%
	Concept	20 %
	Preliminary Design	40%
II	Portfolio evaluation	
	Detail Design	100%

Teaching Schedule		Marks of Sessional work	Marks of Examination		Total marks	Credits	Duration of Examination (h)
L	P		Theory	Portfolio			
4	-	75	75	-	150	4	3

**CONTENT:****UNIT I: Rural Development Problems and issues**

Changing Profile of the Rural areas of India: Consumption pattern, land utilization, cropping pattern, holding size, living standard, asset ownership – its implication in the planning process; Rural settlement, typology, structure, spatial significance; Rural Settlement Analysis: Types, activity, environment and economic interface in rural habitat, technology in rural settlement; Land Utilization: Types of land utilization and its relevance to planning; Land conversions and its regulation / facilitation in peri-urban areas; Land utilization analysis; Common property and its use, tenancy and ownership, holding size and its relevance, Land records and land values; Sources of information for land information; Technology in Rural Development: ICT in rural development, Rural Information system, Weather forecasting, disaster minimization, market information, etc. E-Panchayats, energy efficient technologies and alternative technologies; Inclusive Development: Special Component Plan - Tribal Sub Plan and Weaker Sector.

**UNIT II: Rural Development pattern**

Meaning and Scope and overview of rural development: Historical perspective – Rural Development Programmes in India. Problem / perception and identification; Rural Area Planning – Programmes / Policies / Schemes for rural development, their coverage and outcomes; Plan allocation, implementation, monitoring and evaluation; Models and theories, policies and practices at global level, provisions in national and state five year plans and city master plans etc. Action programme initiated at national and global level. Housing agencies and co-operative feasibility and implementation of existing policies and action programmes, Projections and forecasting, Planning principles for village and community norms. Rural Infrastructure Development: Bharat Nirman – A business plan for rural infrastructure, Rural Building Centers, PMGSY, IAY, Rajiv Gandhi Technology Mission, Central Rural Sanitation Programme, PURA. Rural Employment Schemes: Mahatma Gandhi National Rural Employment Guarantee Act, 2005, Sampoorna Grameen Yojana, National Food for work programme, Swarna Jayanti Gram Swarozgar yojana, National Social Assistance Programme. Programmes: Command Area Programme, Drought Prone Area Programme, Backward Area Development Programme.

**UNIT III: Rural Infrastructure Planning**

Equity, Access, level and efficiency, Quality of Service, Paying Capacity, Pricing of Infrastructure Services; Ownership and Control models in infrastructure provision for rural areas, Corporate Social Responsibility (CSR). Infrastructure Policy: Regulatory and Facilitative, Investment Requirement at various levels and actual investments in Infrastructure; Role of Infrastructure in rural development, Critical Infrastructure in rural development, and Indicators of infrastructure development in defining rural development, standards and bench marks for infrastructure provision and delivery at various levels; basic need and rural sanitation, water supply, hygiene and drainage, technology transfer and options.

**UNIT IV: Rural Development**

Decentralized Planning in India – Historical perspective: Current Scenario – Recent Development in decentralized district level planning. 73rd and 74th Constitution Amendment Acts, Role of Planning Commission and Finance Commissions in rural reconstruction, Block level development planning and implementation, public participation in rural development process, role of voluntary organizations.

**NOTE:**

The subject teacher would make detailed teaching programme along with extensive reading and circulate to the students at the commencement of the semester.

I	Sessional evaluation	Weightage
	Minor Test – I	20%
	Minor Test – II	20%
	Assignment / Mini Project / Term paper	30%
	Quiz/Tutorial/Class Test	30%
II	Theory examination	100%

**INSTRUCTIONS TO QUESTION PAPER SETTER:**

- Exam shall be of 3 hours duration and of maximum marks: 75. (minimum passing marks:30)
- Total EIGHT questions are to be set (two questions from each unit), and candidate have to attempt any five questions selecting one from each unit, each question of 15 marks each.
- The question paper should at least have one question with 3 subparts and three questions with 2 subparts.



Teaching Schedule		Marks of Sessional work	Marks of Examination		Total marks	Credits	Duration of Examination (h)
L	P		Theory	Portfolio			
4	-	75	75	-	150	4	3

**CONTENT:****UNIT I: Introduction**

Interface between policy and legislation pertaining to urban development.

**UNIT II: Understanding of Law**

Concepts, sources, terminologies, significance of law and its relationship to Urban Planning benefits of statutory backing for schemes - eminent domain and police powers; Indian Constitution: concept and contents; 73<sup>rd</sup> and 74<sup>th</sup> Constitution Amendment Act, provision regarding property rights.

**UNIT III: Planning Legislation and Policy Formulation and Appraisal**

Evolution; An over view of legal tools connected with Urban Planning and Development, Town and Country Planning Act, Improvement Trust Act, Urban Planning and Development Authorities Act – objectives, contents, procedures for preparation and implementation of Regional Plans, Master Plans and Town Planning Schemes. Various Acts related to urban governance, planning and development organizations, land resources, environment protection, and public participation in statutory planning process; Approaches of formulation of policies, appraisal of policies.

**UNIT IV: Professional Practice**

Aims and objectives of professional Institutes, sister bodies, professional role and responsibility of planning consultants, professional ethics, code of conduct and scale of professional charges; Formulation of project proposal and outlines, consultancy agreements and contracts, managerial aspects; Role in inter disciplinary groups: Appreciation of the decision-making processes and the process in relation to varied consultancy assignments of planning.

**NOTE:**

The subject teacher would make detailed teaching programme along with extensive reading and circulate to the students at the commencement of the semester.

I	Sessional evaluation	Weightage
	Minor Test – I	20%
	Minor Test – II	20%
	Assignment / Mini Project / Term paper	30%
	Quiz/Tutorial/Class Test	30%
II	Theory examination	100%

**INSTRUCTIONS TO QUESTION PAPER SETTER:**

- Exam shall be of 3 hours duration and of maximum marks: 75. (minimum passing marks:30)
- Total EIGHT questions are to be set (two questions from each unit), and candidate have to attempt any five questions selecting one from each unit, each question of 15 marks each.
- The question paper should at least have one question with 3 subparts and three questions with 2 subparts.

Teaching Schedule		Marks of Sessional work	Marks of Examination		Total marks	Credits	Duration of Examination (h)
L	P		Theory	Portfolio			
	4	75		75	150	4	-

**CONTENT:**

The dissertation shall entail the following:

- Identification of an appropriate and focused research topic reflecting social and technological needs of the day
- Formulate synopsis including objectives, scope of work, methodology of work, case studies to be undertaken, site selection culminating in broad functional requirements.
- An investigation of the topic using an analysis of existing literature, case studies and other data sources
- To develop understanding of the research topic.
- Drawing informed and scientific conclusions from the research

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

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

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

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

**NOTE:**

Detailed teaching programme to be made and circulated to the students at the commencement of the semester.

I	Sessional evaluation	Weightage
	Synopsis	10%
	Mid term submission	50%
	Prefinal submission	40 %
II	Portfolio evaluation	100%

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

1. McMillan, K & Weyers, J (2007) How to write dissertations and project reports. Pearson Prentice Hall.
2. Watson, G (1987) Writing a thesis: a guide to long essays and dissertations, London: Longman. Specialist bibliography according to the project.

Teaching Schedule		Marks of Sessional work	Marks of Examination		Total marks	Credits	Duration of Examination (h)
L	P		Theory	Portfolio			
4	-	75	75	-	150	4	3

**CONTENT:****UNIT I: Environment, Development and Disaster Management – Interface**

Resource use, exploitation and conservation; Impact of human activities on environment; Environment and economy interaction, introduction to environmental accounting.

**UNIT II: Environmental Management**

Environmental Impact Assessment, thresholds, indicators, audits, environmental certification, lifecycle analysis, environment and poverty links, environmental policy, Acts and regulations; Environmental education, participatory approaches, emerging concepts. Disaster classification, concepts, hazards, vulnerability, risks, human response to disaster, impacts

**UNIT III: Disaster Mitigation and Management**

Relevance of disaster management in development and environment, disaster preparedness, prevention, displacement and development, Role and responsibilities of government and non-government organizations, Disaster Education – awareness of individuals, commUNITies and participation at various levels; Integrating disaster mitigation in the spatial planning process, provision of infrastructure for disaster mitigation.

**UNIT IV: Policies and Legislation Pertaining to Environment and Disaster Management**

Policies and Legislation at various levels.

**NOTE:**

The subject teacher would make detailed teaching programme along with extensive reading and circulate to the students at the commencement of the semester.

I	Sessional evaluation	Weightage
	Minor Test – I	20%
	Minor Test – II	20%
	Assignment / Mini Project / Term paper	30%
	Quiz/Tutorial/Class Test	30%
II	Theory examination	100%

**INSTRUCTIONS TO QUESTION PAPER SETTER:**

- Exam shall be of 3 hours duration and of maximum marks: 75. (minimum passing marks:30)
- Total EIGHT questions are to be set (two questions from each unit), and candidate have to attempt any five questions selecting one from each unit, each question of 15 marks each.
- The question paper should at least have one question with 3 subparts and three questions with 2 subparts.

Teaching Schedule		Marks of Sessional work	Marks of Examination		Total marks	Credits	Duration of Examination (h)
L	P		Theory	Portfolio			
4	-	75	75	-	150	4	3

**CONTENT:****UNIT I: Introduction**

Energy, Climate change and Urban Development – Interface.

**UNIT II: Energy Generation and Consumption**

Energy Supply and Demand, Energy Consumption in cities, determinants of energy demand, phenomenon of climate change, factors influencing climate change, impacts of climate change

**UNIT III: Energy Planning and Management, and Mitigation and Adaptation to Climate Change.**

Energy efficient development, Compact city form, Transit oriented development. Mechanisms and measures for mitigating and adapting to climate change at various levels

**UNIT IV: Plans, Policies and Strategies**

Related to energy planning, conservation, climate change mitigation and adaptation.

**NOTE:**

The subject teacher would make detailed teaching programme along with extensive reading and circulate to the students at the commencement of the semester.

I	Sessional evaluation	Weightage
	Minor Test – I	20%
	Minor Test – II	20%
	Assignment / Mini Project / Term paper	30%
	Quiz/Tutorial/Class Test	30%
II	Theory examination	100%

**INSTRUCTIONS TO QUESTION PAPER SETTER:**

- Exam shall be of 3 hours duration and of maximum marks: 75. (minimum passing marks:30)
- Total EIGHT questions are to be set (two questions from each unit), and candidate have to attempt any five questions selecting one from each unit, each question of 15 marks each.
- The question paper should at least have one question with 3 subparts and three questions with 2 subparts.

Teaching Schedule		Marks of Sessional work	Marks of Examination		Total marks	Credits	Duration of Examination (h)
L	P		Theory	Portfolio			
4	-	75	75	-	150	4	3

**CONTENT:****UNIT I: Overview of Development Finance**

Approaches, concepts, components, process, credit rating.

**UNIT II: State Finance**

Finance Commissions, functions, relationship between Central, State and Urban Local Government.

**UNIT III: Municipal Finance**

Urban reform incentive fund, Sources of revenues; Equities; Loans; Debt financing; City challenge fund, Pooled finance development fund, National urban infrastructure fund, Municipal Bonds, Miscellaneous sources; Structure of finances, fiscal problems and issues of financial management, implications of 74th Constitution Amendment Act for municipal finance, expenditure pattern, Bilateral and multi lateral lending intuitions mobilizing resources for a project - financial resources, land resources, project resources, and other resources.

**UNIT IV: Investment Planning and Financing Mechanism**

Link with spatial plans, process, components, investment needs, budgeting, financial investments in infrastructure and services. Financing of urban development, infrastructure and services – mechanisms and instruments, subsidy reduction, cost recovery, public private partnerships; Financial appraisal, investment appraisal; Financial Risk – Sources, Measures and perspectives on risk, Sensitivity analysis.

**NOTE:**

The subject teacher would make detailed teaching programme along with extensive reading and circulate to the students at the commencement of the semester.

I	Sessional evaluation	Weightage
	Minor Test – I	20%
	Minor Test – II	20%
	Assignment / Mini Project / Term paper	30%
	Quiz/Tutorial/Class Test	30%
II	Theory examination	100%

**INSTRUCTIONS TO QUESTION PAPER SETTER:**

- Exam shall be of 3 hours duration and of maximum marks: 75. (minimum passing marks:30)
- Total EIGHT questions are to be set (two questions from each unit), and candidate have to attempt any five questions selecting one from each unit, each question of 15 marks each.
- The question paper should at least have one question with 3 subparts and three questions with 2 subparts.

Teaching Schedule		Marks of Sessional work	Marks of Examination		Total marks	Credits	Duration of Examination (h)
L	P		Theory	Portfolio			
	20	250	-	250	500	20	-

**CONTENT:**

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

The project shall entail the following

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

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

**NOTE:**

Detailed teaching programme to be made and circulated to the students at the commencement of the semester.

I	Sessional	Weightage
1.	Synopsis	10%
2.	Programme formulation	30%
3.	Concept	20%
4.	Preliminary Design	40%
II	Portfolio	100%

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

1. Evans, D & Gruba, P (2002) How to write a better thesis. 2<sup>nd</sup> Edition, Melbourne University Press.
2. Murray, R (2006) How to write a thesis. 2<sup>nd</sup> Edition, Maidenhead: Open University Press.
3. Turabian, K (2007) A manual for writers of research papers, theses, and dissertations, 7th Edition, Chicago: University of Chicago Press.
4. As appropriate for each individual thesis.