



**JAI NARAIAN VYAS UNIVERSITY JODHPUR  
(RAJASTHAN)**

**FACULTY OF ARTS, EDUCATION AND SOCIAL SCIENCES**

**SYLLABI**

**FOR**

**M.A. GEOGRAPHY (SEMESTER SCHEME)**

**(SEMESTER I AND SEMESTER II) EXAMINATIONS 2018-2019**

**&**

**(SEMESTER III AND SEMESTER IV) EXAMINATIONS 2018-2019**

Same IV – 1. Minor changes in paper no XVII (GEC 403) Elective Option, (C) Dissertation is deleted.

2. Minor Changes in paper no XIX ( GEC 404) Elective Option, Advanced oceanography and Geography of energy resources are deleted.

(a). New elective/ option paper – Advanced systematic and regional geography of Japan is introduced.

(b) Advanced systematic and regional geography of USA is second elective paper (Already exists/ previously).

# DETAIL EXAMINATION SCHEME FOR CHOICE BASED CREDIT SYSTEM

## GUIDELINES

### Definitions of Key Words:

1. **Academic Year:** Two consecutive (one odd + one even) semesters constitute one academic year.
2. **Choice Based Credit System (CBCS):** The CBCS provides choice for students to select from the prescribed elective and skill courses. A student need to select **two elective papers** offered by the Department in which he/she is doing core course this shall be part of core programme during third and fourth semester. Each student has to complete **four skill courses:** two within the Department and two from other Department within JNV University or the Universities approved by JNV University
3. **Course:** Usually referred to, as ‘papers’ is a component of a programme. All courses need not carry the same weight. The courses should define learning objectives and learning outcomes. A course may be designed to comprise lectures/ tutorials/laboratory work/ field work/ project work/ self-study etc. or a combination of some of these.
4. **Credit Based Semester System (CBSS):** Under the CBSS, the requirement for awarding a degree is prescribed in terms of number of credits to be completed by the students.
5. **Credit Point:** It is the product of grade point and number of credits for a course.
6. **Credit:** A unit by which the course work is measured. It determines the number of hours of instructions required per week. One credit is equivalent to one period of teaching (lecture or tutorial) or two periods of practical work/field work per week.
7. **Cumulative Grade Point Average (CGPA):** It is a measure of overall cumulative performance of a student over all semesters. The CGPA is the ratio of total credit points secured by a student in various courses in all semesters and the sum of the total credits of all courses in all the semesters. It is expressed up to two decimal places.
8. **Grade Point:** It is a numerical weight allotted to each letter grade on a 10-point scale.
9. **Letter Grade:** It is an index of the performance of students in a said course. Grades are denoted by letters O, A+, A, B+, B, C, P and F.
10. **Programme:** An educational programme leading to award of the Postgraduate Degree in the Core subject in which he/she is admitted.
11. **Semester Grade Point Average (SGPA):** It is a measure of performance of work done in a semester. It is ratio of total credit points secured by a student in various courses registered in a semester and the total course credits taken during that semester. It shall be expressed up to two decimal places.
12. **Semester:** Each semester will consist of 15-18 weeks of academic work equivalent to 90 actual teaching days. The odd semester may be scheduled from July to November/ December and even semester from December/January to May.  
**Odd semester University examination shall be during second/third week of December and even semester University examination shall be during second/third week of May. The Department shall conduct the Practical examination of odd and even semesters as per the Panel of Examiners approved by the University. Each Board of examiners shall consist for one external Examiner from other University/Institute and another from the Department.**
13. **Transcript or Grade Card or Certificate:** Based on the grades earned, a statement of grades obtained shall be issued to all the registered students after every semester. This statement will display the course details (code, title, number of credits, grade secured) along with SGPA of that semester and CGPA earned till that semester

### Fairness in Assessment

Assessment is an integral part of system of education as it is instrumental in identifying and certifying the academic standards accomplished by a student and projecting them far and wide as an objective and impartial indicator of a student’s performance. Accordingly the Faculty of Arts, Education & Social Sciences resolves the following:

- a. All internal assessments shall on term test and seminar. Attendance shall carry the prescribed marks in all papers.
- b. In each semester two out of four theoretical components of the University examinations shall be undertaken by external examiners from outside JNV University, who may be appointed by the competent authorities.

### Grievances and Redressal Mechanism

- a) The students will have the right to make an appeal against any component of evaluation. Such appeal has to be made to the Head of the Department concerned as the case may be clearly stating in writing the reason(s) for the complaint / appeal.
- b) The appeal will be assessed by the Chairman and he/she shall place before the **Grievance Redressal Committee (GRC)**, Chaired by the Dean, Faculty of Arts, Education & Social Sciences comprising of the HOD of the concerned Department and if need be Course Teacher(s) be called for suitable explanation; GRC shall meet at least once in a semester and prior to CCA finalization.
- c) The Committee will consider the case and may give a personal hearing to the appellant before deciding the case. The decision of the Committee will be final.

Table 1: Grades and Grade Points

S.No.	Letter Grade	Meaning	Grade Point
1	'O'	Outstanding	10
2	'A+'	Excellent	9
3	'A'	Very Good	8
4	'B+'	Good	7
5	'B'	Above Average	6
6	'C'	Average	5
7	'P'	Pass	4
8	'F'	Fail	0
9	'Ab'	Absent	0

- i. A student obtaining Grade F in a paper shall be considered failed and will be required to reappear in the University End Semester examination.
- ii. For noncredit courses (Skill Courses) 'Satisfactory' or "Unsatisfactory" shall be indicated instead of the letter grade and this will not be counted for the computation of SGPA/CGPA

### Grade Point assignment

= and > 95 % marks Grade Point 10.0  
90 to less than 95 % marks Grade Point 9.5  
85 to less than 90 % marks Grade Point 9.0  
80 to less than 85 % marks Grade Point 8.5  
75 to less than 80 % marks Grade Point 8.0  
70 to less than 75 % marks Grade Point 7.5  
65 to less than 70 % marks Grade Point 7.0  
60 to less than 65 % marks Grade Point 6.5  
55 to less than 60 % marks Grade Point 6.0  
50 to less than 55 % marks Grade Point 5.5  
45 to less than 50 % marks Grade Point 5.0  
40 to less than 45 % marks Grade Point 4.5  
35 to less than 40 % marks Grade Point 4.0

### Computation of SGPA and CGPA:

- i. The SGPA is the ratio of sum of the product of the number of credits with the grade points scored by a student in all the courses taken by a student and the sum of the number of credits of all the courses undergone by a student,  
i.e.

$$\text{SGPA (Si)} = \frac{\sum (C_i \times G_i)}{\sum C_i}$$

Where  $C_i$  is the number of credits of the  $i$ th course and  $G_i$  is the grade point scored by the student in the  $i$ th course.

- ii. The CGPA is also calculated in the same manner taking into account all the courses undergone by a student over all the semesters of a programme,  
i.e.

$$\text{CGPA} = \frac{\sum (C_i \times S_i)}{\sum C_i}$$

where  $S_i$  is the SGPA of the  $i$ th semester and  $C_i$  is the total number of credits in that semester.

- iii. The SGPA and CGPA shall be rounded off to 2 decimal points and reported in the transcripts.

**Illustration for SGPA**

S.No.	Course	Credit	Grade letter	Grade point	Credit Point (Credit x Grade)
1	Course 1	6	B	6	6 x 6 =36
2	Course 2	6	B+	7	6 X 7 =42
3	Course 3	6	B	6	6X 6 = 36
4	Course 4	6	O	10	6 X 10 =60
	Total	24			36+42+36+60=174

Thus,  $\text{SGPA} = 174/24 = 7.25$

**Illustration for CGPA**

	Semester- I	Semester-II	Semester-III	Semester-IV
Credit	24	24	24	24
SGPA	7.25	7.25	7	6.25

$$\text{CGPA} = \frac{(24 \times 7.25 + 24 \times 7.25 + 24 \times 7 + 24 \times 6.25)}{96}$$

$$666/98 = 6.94$$

**Semester-wise Theory Papers/Practical / Skill component**

Type of course	Course code	Title of the Course	Lecture-Tutorial-Practical/Week	No. of credits	Continuous Comprehensive Assessment (CCA)	End-Semester Examination (ESE) [University Examination]	Total
<b>Semester I</b>							
Core course 1	GCC 101		6-0-0	6	30	70	100
Core course 2	GCC 102		6-0-0	6	30	70	100
Core course 3	GCC 103		6-0-0	6	30	70	100
Core course 4	GCC 104		6-0-0	6	30	70	100
Practical Course 5	GPC 105		0-0-12	6	30	70	100
Skill Course I	GSC 101		2-0-2				
Total				30	150	350	500
<b>Semester II</b>							
Core course 6	GCC 201		6-0-0	6	30	70	100
Core course 7	GCC 202		6-0-0	6	30	70	100
Core course 8	GCC 203		6-0-0	6	30	70	100
Core course 9	GCC 204		6-0-0	6	30	70	100
Practical Course 10	GPC 205		0-0-12	6	30	70	100
Skill course II	GSC 202		2-0-2				
Total				30	150	350	500

<b>Semester III</b>							
Core course 11	GCC 301		6-0-0	6	30	70	100
Core course 12	GCC 302		6-0-0	6	30	70	100
Discipline Specific Elective 1	One Elective paper from the list of Group I GEC 303(a,b,c)		6-0-0	6-0-0	6	70	100
Discipline Specific Elective 2	One Elective paper from the list of Group II GEC 304(a,b,c)		6-0-0	6-0-0	6	70	100
Practical Course 15	GPC 305						
Skill course III	GSC 303		2-0-2				
Total				24	120	280	400
<b>Semester IV</b>							
Core course 16	GCC 401		6-0-0	6	30	70	100
Core course 17	GCC 402		6-0-0	6	30	70	100
Discipline Specific Elective 3	One Elective paper from the list of Group I GEC 403(a,b,c)		6-0-0	6-0-0	6	70	100
Discipline Specific Elective 4	One Elective paper from the list of Group II GEC 404(a,b)		6-0-0	6-0-0	6	70	100
Practical Course 20	GPC 405						
Skill course IV	GSC 404		2-0-2				
Total				24	120	280	400

**\* The Department shall offer one skill course per semester from the list of skill courses approved for the Department.**

In view of the course content, the Department of Geography distributed the Periods between Theory/Tutorial/Practical as under per paper

- 6: 0 : 0 (six lectures only (no tutorial and no practical) per week) – For Theory
- 0: 0 :12( no lecture, no tutorial and twelve practical only per week)- For practical per paper
- 2+0+2 (two lectures, no tutorial and two practical/field experimentations) - For Skill course

**The Duration of the Period shall be forty five minutes. In each of these combinations, the first value stands for the same number of lecture instructions per week, whereas the last two values stand for doubles the number of tutorial/ practical instructions per week**

In each practical group the number of students that can be accommodated will be fifteen.

**Course Evaluation (Evaluation of the Students)**

All courses (Core/ Elective/ Practicals ) involve an evaluation system of students that has the following two components:-

- (i) **Continuous Comprehensive Assessment (CCA)** accounting for 30% of the final grade that a student gets in a course; and
  - (ii) **End-Semester Examination (ESE)** accounting for the remaining 70% of the final grade that the student gets in a course.
- (i) **Continuous Comprehensive Assessment (CCA):** This would have the following components:
- a. **Term Test:** One term test shall be arranged for each paper prior to End-Semester Examination; examination duration shall be of three hours; maximum marks shall be 60 (reduced to 15).
  - b. **Seminar:** Each student shall prepare and deliver a seminar per theory paper; maximum marks shall be 40 (reduced to 10). The seminar shall be completed prior to term test for all the papers.
  - c. **Classroom Attendance** – Each student will have to attend a minimum of 75% Lectures / Tutorials / Practicals. A student having less than 75% attendance will not be allowed to appear in the End-Semester Examination (ESE). Attendance marks will be awarded by following the system proposed below:

Those having 75% attendance and greater than that will be awarded CCA marks as follows:-

75% to 80%	=	1 mark
81% to 85%	=	2 marks
86 to 90%	=	3 marks
91% to 95%	=	4 marks
96% and above	=	5 marks

**Note: Compensation in classroom attendance of a student will be as per prevalent University rules.**

**Each student's cumulative attendance shall be displayed in the Department Notice Board every month with a copy to the Dean, Faculty of Arts, Education & Social Sciences.**

- d. CCA is based on open evaluation system without any bias to any student.
- e. Any grievance received in the Department from student shall be placed before the **Grievance Redressal Committee** with adjudicated comments

Each component marks will be added making it rounding as per norms.

#### **Marking Scheme of Continuous Comprehensive Assessment (CCA)**

<b>Components</b>	<b>Maximum Marks</b>	<b>Reduced and Original Marks</b>
Term Test	60	(reduced to 15)
Seminar	40	(reduced to 10)
Classroom Attendance	05	05
<b>Total Marks of CCA</b>	<b>100</b>	<b>30</b>

Note : Classroom Attendance marks will be as follows :-

Those having 75% attendance and greater than that will be awarded CCA marks as follows:-

<b>Percentage</b>	<b>Marks</b>
75% to 80%	1 mark
81% to 85%	2 marks
86 to 90%	3 marks
91% to 95%	4 marks
96% and above	5 marks

**Skill Course Evaluation:** Based on his/her performance and hands on practice, the respective Department shall declare the result as "Satisfactory" or "Non-Satisfactory"; each student need to get a minimum of three "Satisfactory" declaration for the course completion

#### **For the Term test and ESE:**

##### **Part A**

Ten questions (Definitions, illustrations, functions, short explanations, etc; 25-50 words) for one mark each. 10 × 1 = 10 marks; comprising questions from each Unit; no choice in this part

##### **Part B**

Four questions of long/explanatory answer (500 words) type, one drawn from each Unit; with internal choices : 4 x 15 = 60 marks.

**10+60 = 70 marks**

#### **MEDIUM**

Candidates are not allowed to use any medium except Hindi or English for answering question papers. For answering papers in the subjects of English/Hindi the medium will be corresponding language only.

### **Qualifying for Next semester**

- i. **A student acquiring minimum of 40% in total of the CCA is eligible to join next semester.**
- ii. A student who does not pass the examination (CCA+ESE) in any course(s) (or due to some reason as he/she not able to appear in the ESE, other conditions being fulfilled, and so is considered as 'Fail'), shall be permitted to appear in such failed course(s) in the subsequent ESE to be held in the following October / November or April / May, or when the course is offered next, as the case may be.
- iii. A student who fails in one or more papers in a semester shall get three more chances to complete the same; if he/she fails to complete the same within the prescribed time, i.e. three additional chances for each paper; the student is ineligible for the Postgraduate degree in the Subject in which he/she is admitted, for additional chances examination fee shall be on additive basis.

### **Improvement Option:**

Every student shall have the opportunity to improve Credit through University Examination only. Improvement opportunity for each paper is only with two additional chances; improvement examination fee shall be on additive basis; the Credit obtained in improvement examination shall be final.

### **Result Declaration:**

The ESE (End Semester Examination/University Examination) results shall be declared within twenty days of the last examination. The Theory Classes of even semesters shall begin from the next day of ESE; whereas odd semester classes shall commence after summer vacation.

### **POST -GRADUTE COURSE: A DESCRIPTION**

The full course is of FOUR SEMESTERS spread for TWO YEARS duration. A semester-wise list of courses to be offered is given below. In each paper there will be four units.

SEMESTER I

SEMESTER II

SEMESTER III

SEMESTER IV

Elective paper group – First – Semester III

Elective paper group – Second – Semester III

Elective paper group – First – Semester IV

Elective paper group – Second – Semester IV

### **Skill Courses in the respective subject**

Electives would be discipline centric and only students from concerned departments can register.

## **ADMISSION**

The details of the eligibility conditions and admission procedures are given in the admission forms and on university website. The admission would be done on the basis of merit as per university rules. Reservation for SC, ST and OBC would also be done as per J.N.V. University, Jodhpur rules. Candidates are required to attend minimum 75% of the classes in theory and practicals both.

## **FACILITIES**

The Department of Geography possesses several sophisticated, advanced and modern equipments required for teaching and research.

### **Faculty Members**

#### **Professor**

Dr. Rajendra Parihar (Prof.& Head )

Dr. Irfan Mehar

#### **Associate Professor**

Dr. Jai Singh

#### **Assistant Professor**

Dr. Arjun Lal Meena

Dr. Asha Rathore

Mr. Govind Singh

Dr. Lalit Singh Jhala

Mr. Omprakash

Mr. Gaurav Kumar Jain



## TEACHING AND EXAMINATION SCHEME

### Per Semester

Course	Periods/Week	Examination hours	CCA	ESE	Total
Theory Papers/ Practicals					
Course I	6	3	30	70	100
Course II	6	3	30	70	100
Course III	6	3	30	70	100
Course IV	6	3	30	70	100
Practical Courses V	12	6	30	70	100

### UNIVERSITY EXAMINATION

Each course paper shall be of three hours duration.

*Note:* The number of elective to be taught from each group in a particular year shall be decided by the Department. Electives offered will be announced at the beginning of the academic session. Each student shall be assigned one Elective Paper from Group ONE and the second from Group TWO. Elective papers will be allotted on merit-cum-choice basis as far as possible. In the odd semester two skill courses will be those offered by the respective departments in the even semester skill courses will be from other departments.

## SCHEME OF EXAMINATION FOR M.A GEOGRAPHY (SEMESTER SYSTEM) FOR THE EXAMINATION OF 2018-19

### *INSTRUCTIONS FOR THE PAPER SETTERS AND THE STUDENTS*

Max. Marks - 70  
Min. Marks – 25

Duration – 3 hours

Note :

- (i) There shall be 9 questions in all. Five questions have to be attempted.
- (ii) The first question shall be short answer type containing 10 short questions spread over the whole syllabus to be answered in about 30 words each. It shall carry 10 marks and shall be a compulsory question.
- (iii) Rest of the paper shall contain 8 questions with internal choice. The entire syllabus has been divided into four units. Each unit shall have two questions and the candidates shall be given internal choice i.e. the candidate shall attempt one question from each unit.

### SEMESTER - IV

1. THEORY PAPERS Credits (Core)	ESE	CCA	Total	Lecture- Tutorial- Practical/Week	
<b>Paper-XVI</b> (GCC401)Regional planning and Development	<b>70</b>	<b>30</b>	<b>100</b>	<b>6-0-0</b>	<b>6</b>
<b>Paper –XVII</b> (GCC 402)Advanced Geography of India	<b>70</b>	<b>30</b>	<b>100</b>	<b>6-0-0</b>	<b>6</b>
<b><u>ELECTIVE PAPERS</u></b>					
<b>Paper- XVIII</b> (GEC 403) Any one of the following- (a) Climatology and Meteorology (b) Fundamentals of Natural Hazards and Disaster Management	<b>70</b>	<b>30</b>	<b>100</b>	<b>6-0-0</b>	<b>6</b>
<b>Paper- XIX</b> (GEC 404) Any one of the following- 6 (a) Advanced Systematic and Regional Geography Japan (b) Advance Systematic and Regional Geography of U.S.A	<b>70</b>	<b>30</b>	<b>100</b>	<b>6-0-0</b>	<b>6</b>

<b>Paper- XX</b> (GPC 405) Practical (Cartography and project)	<b>70</b>	<b>30</b>	<b>100</b>	<b>0-0-12</b>	<b>6</b>
---	-----------	-----------	------------	---------------	----------

<b>Grand Total</b>	.....	<b>500 Marks</b>	.....	<b>30 Credits</b>
--------------------	-------	------------------	-------	-------------------

.....  
**Total marks of Semester IV 500 Marks and 30 Credits**  
 .....

.....  
**Total marks of M.A (Semester III and IV) 1000 Marks and 60 Credits**  
 .....

.....  
**Total marks of M.A (Semester I, II, III and IV) 2000 Marks and Credits 120**  
 .....

**Skill Course-IV (GSC404) (for Students of other Deptt.)**

**2-0-2**

## **SEMESTER-IV PAPER – XVI (GCC 401)**

### **REGIONAL PLANNING AND DEVELOPMENT**

**Unit – I:** Regional concept in Geography, merits and limitations for application to regional planning and development; changing concept of the region

**Unit-II:** Indicators of development and disparities - case study of India. Regional development strategies

**Unit- III:** Short- term and long term planning in a national context. Regional development in India - problems and prospects..

**Unit- IV:** Planning process - sectoral, temporal and spatial dimensions, Concept of Multi-level planning : Decentralized planning; Peoples participation in the planning process;

***Books Recommended :***

1. Abler, R. et.al : Spatial Organisation : The Geographer's View of the World, Prentice Hall, Englewood Cliffs, N.J., 1971
2. Bhat, L.S. : Regional Planning in India, Statistical Publishing Society, Calcutta, 1973
3. Bhat, L.S. : Micro-Level Planning : A Case Study of Karnal Area, Haryana, K.B. Publications, New Delhi, 1976
- 15
4. Chorley, R.J. & Hagget, P.: Models in Geography, Methuen, London, 1967
5. Christaller, W. : Central Places in Southern Germany, Translated by C.W. Baskin, Prentice Hall, Englewood Cliffs, New jersey, 1966
6. Friedmann, J. & Alonso, W.: Regional Development Policy - A Case Study of Venezuela, M.I.T. Press Cambridge, Mass, 1966
7. Friedmann, J. & Alonso, W.: Regional Development and Planning - A Reader, M.I.T. Press Cambridge, Mass, 1967
8. Glikson, Arthur : Regional Planning and Development, Netherlands Universities

- Foundation for International Co-operation, London, 1955
9. Gosal, G.S. & Krishan, G.: Regional Disparities in Levels of Socio-Economic Development in Punjab, Vishal Publications, Kurukshetra, 1984
  10. Govt. of India, Planning Commission - Third Five Year Plan, Chapter on Regional Imbalances in Development, New Delhi, 1961
  11. Indian Council of Social Science Research - Survey of Research in Geography, Popular Prakashan, Bombay, 1972
  12. Johnson, E.A.J. : The Organisation of Space in Developing Countries, Harward University Press, Cambridge, 1970
  13. Kuklinski, A.R. (ed.) : Growth Poles and Growth Centres in Regional Planning, Mouton, The Hague, 1972
  14. Kundu, A. & Raza, Moonis: Indian Economy - The Regional Dimension, Spectrum Publishers, New Delhi, 1982
  15. Losch, A. : The Economics of Location, University Press, Yale, New Haven, 1954
  16. Misra, R.P. : Regional Planning Concepts, Techniques and Policies, University of Mysore, Mysore, 1969
  17. Misra, R.P. & Others (eds.): Regional Development Planning in India - A Strategy, Institute of Development Studies, Mysore 1974
  18. Mitra, A. : Levels of Regional Development, Census of India, Vol.I, Part1A (I) and (II) New Delhi 1965
  19. Myrdal, G : Economic Theory and under Development Regions Gereld Ducjworth, London, 1957
  20. Nangia, Sudesh : Delhi Metrololitan Region, Rajesh Publication, Delhi, 1976
  21. Richardson, H.W. : Regional Economics, Weidenfeld and Nicolson, London, 1969
  22. Sundaram, K.V. (ed.): Geography and Planning, Essays in Honour of V.L.S. Prakasa Rao, Concept Publishing Co., New Delhi, 1985
  23. Tarlok Singh : India's Development Experience, McMillan, New Delhi, India, 1974
  24. Raza Moonis (ed.) : Regional Development, Heritage Publishers, Delhi 1988
  25. Mishra, R.P. et.al : Multi - Level Planning, Heritage Publishers, Delhi, 1980

## **PAPER-XVII (GCC 402)**

### **ADVANCED GEOGRAPHY OF INDIA**

Unit 1 : Terrain units of India( Northern Mountain Region) and their characteristics; Drainage systems; Origin and Mechanism of Indian Monsoon; Climatic divisions

Unit 2 : Population-growth, distribution and density; Population problems and policies; Agriculture-main characteristic and problems, Agricultural regions; Major Irrigation schemes-Damodar, Bhakra Nagal and Chamal

Unit 3 : Major minerals (Iron-ore, Manganese, Mica and Copper,) and Power Resources (Coal, Petroleum, Hydro-electricity and Nuclear)- their distribution, reserves, production and conservation

Unit 4 : Transportation and trade-different modes and their functional significance; International trade composition and trends; planning regions of India

#### **RECOMMENDED READINGS**

Choudhary, M.R. : An Economic Geography of India, Oxford and IBH Publishing Co., New Delhi, 1976

Chouhan, T.S. : Bharat Ka Bhugol, Vigyan Prakashan, Jodhpur, 1997 Nag. Pub. And S. Sengupta : Geography of India, Concept Publishing Co., New Delhi, 1992

Sharma T.C. : and O. Coutinho : Economic and Commercial Geography Geography of India, Vikash Publishing Pvt. Ltd. , New Delhi, 1993

Singh J. : India-A Comprehensive Sysmatic Geography, Gyanodaya Prakashan, 234, Daudpur, Gorakhpur, 1995

Spate, O.H.K. and A.T.A. Learmouth : India, Pakistan and Ceylon, Methuen & Co., London,1967

Ramamoory and Gopalkrishan : Geography of India, Jawahar Publishers and Distributors, New Delhi, 1996

Tirtha, R. : Geography of India, Rawat Publication, Jaipur, 1996

Sharma, R.C. : Reading in General Geography and Geography of India, Jawahar Publishers and Distributors, New Delhi, 1992

Mamoria, C.B. : Economic and Commercial Geography of India, shiva lap Agarwal & Co., Agra, 1986

Despande, C.D. : India- A Regional Synthesis, new Delhi, 1996

Dutta, R. and K.P., Sundkram : Indian Economy

Tiwari, R.C. : Geography of India, Prayag Pustak Bhawan, Allahabad, 2003

## PAPER-XVIII (GEC 403)

### (a) CLIMATOLOGY AND METEOROLOGY

Unit 1 : Construction and use of chief meteorological instruments, physical process of atmosphere, radiation and heat balance; condensation, stability and instability

Unit 2 : Origin, Characteristics and transformation of air masses, fronts and cyclones, general circulation of atmosphere, weather forecasting, classification of climates

Unit 3 : Modification of atmosphere by surface features; evidence of climatic changes during geological and historical times and critical assessment of such evidences

Unit 4 : Reaction of man to climatic environment, modification of terrestrial climates by human agency

#### Recommended Readings

Benstead, C.R. : The Weather Eye

Conard, V. and Plok, L.W. : Methods in Climatology

Finch, V.C., Trewartha, G.T., Shearer and Candler: Elementary Meteorology

Geiger, H. : The Climate Near the Ground

Haynes, B.G. : Techniques of Observing the Weather

Hole, P.X. : The Restless Atmosphere

Kendrew, W.G. : Climatology

Middleton, W.G. : Meteorological Instruments

Miller, A.A. : Climatology

Petterson, S. : Introduction to Meteorology

Petterson, S. : Weather Analysis and Forecasting

Richi, H. : Tropical Meteorology

Saucier, M.J. : Principles of Meteorological Analysis

Sutton, O.G. : Micrometeorology

Tannehill, I.R. : Hurricanes

Trewartha, G.T.: An Introduction to Weather and Climate

Trewartha, G.T.: The Earth's Problem Climate, 1962

Walths, J.E.S. : Equatorial Air

Willett H.C. & Sandars, F. : Descriptive meteorology

Crowe, P.R. : Concepts in Climatology, Longmans, London, 1971

McBoyle, G.(ed.) : Climate in Review, Houghton Mifflin Comp. Boston, 1973

## PAPER-XVIII (GEC 403)

### (b) FUNDAMENTALS OF NATURAL HAZARDS AND DISASTER MANAGEMENT

**UNIT-I:** Basic Concept : Hazards, Vulnerability, Risk and Disaster; Classification/Types of Hazards/Disasters; Evolution of Disaster Studies and its Current Status

**UNIT-II:** Geo-Physical/Tectonic Disasters: Earthquake, Landslide and Avalanche; Hydrological Disasters: Flood, Cloud burst, Drought and desertification, Cyclone; Human Made Disasters: Chemical Disaster, Nuclear Disaster

**UNIT-III:** Regional Dimension of Hazards/Disasters in India. Earthquakes in India, Landslides in India, Drought in India; Disasters in Himachal Pradesh,

**UNIT-IV:** Disaster Management: Pre-disaster phase, Emergency phase and Post-disaster phase; Disaster Management Mechanism in India: Disaster Management Agencies

#### Recommended Readings:

1. Alexander, D. E.: *Natural Disasters*. London: University College London Press and; Dordrecht and Boston: Kluwer Academic Publishers, 1993.
  2. Alexander, D. E.: *Confronting Catastrophe: New Perspectives on Natural Disasters*. Harpenden, U.K: Terra Publishing, 2000.
  3. Allan, S., Adam, B. and Carter, C. (eds): *Environmental Risks and the Media*, Routledge, London, 2000.
  4. Ahmed, Shaik Iftikhar: *Disaster Management in the Wake of a Flood*, Twenty First Century Publications, Patiala, 2008.
  5. Blaikie, P. and Others: *At Risk: Natural Hazards, People's Vulnerability, and Disasters*, Routledge, London, 1994.
  6. Birkmann, J.: *Measuring Vulnerability to Natural Hazards: Towards Disaster Resilient Societies*. US: United Nations University Press, 2006.
  7. Hyndman, D. and D. Hyndman.: *Natural Hazards and Disasters*. 2<sup>nd</sup> edition. USA, Belmont: Brooks/Cole, 2009.
  8. Burton, I., Kates, R.W. and White, G.F.: *Environment as Hazard*, 2<sup>nd</sup> edition, Guilford Press, New York, 1993.
- 38 M.A. GEOGRAPHY (SEMESTER SYSTEM)
9. Hewitt, K.: *Regions of Risk: A Geographical Introduction to Disasters*, Longman, London, 1997.
  10. Kasperson, J.X., Kasperson, R.E. and Turner, B. L.: *Regions at Risk: Comparisons of Threatened Environments*, United Nation University Press, Tokyo, 1995.

## **PAPER-XIX (GEC 404)**

### **(a) ADVANCED SYSTEMATIC AND REGIONAL GEOGRAPHY JAPAN**

Unit I : Physiographic regions, Soil , Natural Vegetation; Natural Hazards: Volcanoes, Earthquakes, Tsunami, Typhoons, Floods

Unit II: A Agriculture - Problems and Prospects, Salient features of Agriculture and changing scenario, Agricultural Regions, Major Crops, Irrigation: Types of Irrigation and Distribution ; Minerals: Major types of minerals

Unit III: Power resources: Coal, Petroleum and Hydroelectricity, Location and distribution of Industries: Iron and Steel, Cotton Textile, Automobile; Transport: Roadways, Railways, Airways, Major ports and Seaways

Unit IV : A detailed study of Major Geographical Regions

#### **RECOMMENDED READINGS**

Association of Japanese Geographers (Ed) (1980): Geography of Japan. Teikoku Shoin

Dempster Prue (1967): Japan Advances, A Geographical Studies. Mathuen and Co. Ltd.

Woronoff (1993): Japanese Management Mystique, Reality behind the Myth. Neo Pub. Press, new Delhi

Kunio Yoshihara (1972): Japanese Economic Development : A Short Introduction, Methuen Co., London

Reischauer E.D (1946): Japan Past and Present. Alfred A Knoph, New York

Trewartha Glenn T. (1965): Japan – A physical Cultural and Regional Geography. Muthuen Co., London

Hall R.B (1970): Japan, Industrial Power of Asia, Pall Mall Press, London

Trewartha Glenn T. (1965): Japan – A physical Cultural and Regional Geography. Muthuen Co., London



**PAPER- XIX (GEC 404)**  
**(b) ADVANCED SYSTEMATIC AND REGIONAL GEOGRAPHY U.S.A.**

Unit I : Physiographic regions, Soil , Natural Vegetation

Unit II: Agriculture Crops: Corn, Cotton, Wheat, Agriculture Belts; Minerals: Iron Ore, and Atomic Minerals

Unit III: Power resources: Coal, Petroleum and Hydroelectricity, Location and distribution of Industries:Iron and Steel, Cotton Textile, Automobile; Transport: Inland Waterways

Unit IV : A detailed study of Major Geographical Regions

**RECOMMENDED READINGS**

Atwood,E(ed.): The Physiographic Provinces of North America

Fenneman, N.M.: Physiography of Wstern United States

Green, C.M. : American Agriculture

Loomix, F.B.: Physiography of the United States

Monkhouse, FJ & H.R. Cair, North America, Longman

Peterson, J.H.: North America, London

White, C.L. and Foscue, F.J.: Regional Geography of Anglo-America Watson, W.: North America, Methuen, London University Library, London, 1957

Ullman, E.L. : American Geography: Inventory and Prospects, James and C.F. Jones (editors),

Kuhn, T.E. : Public Enerprise, Economic and Transport problems, University of California Press, 1962

Ministry of Transport : Batter use of Town Roads, HMSA. London,1967

Bingham, T. : Transportation – Principles and Problems McGraw Hill, New York,

**PAPER-XX (GPC 405)**  
**CARTOGRAPHY AND SCIO-ECONOMIC SURVEY OF VILLAGE**

Out of 100 marks assigned for geography practical, 30 marks for CCA and 70 marks for ESE . The division of ESE marks will be as - 40 marks are reserved for Laboratory Work Test, and 10 marks for the evaluation of record book and 05 marks for viva on record book. 20 marks for socio-economic survey of a village,(10 marks Survey Report, 05 marks viva on Survey Report).

**Syllabus contents:**

**Unit I:** Graphs showing pressure and relative humidity conditions, interpretation of air photos: Simple photo-interpretation with the help of pocket and mirror stereoscope as applied in identification and analysis of feature of landforms; geographic units, settlements, communication, vegetation and land use

**Unit II:** Numerical exercises pertaining to the aerial photographs; Calculation of flying height, number of strips of aerial photographs in given area, Fundamentals of digital image processing.

**Unit III:** Geographic information systems (GIS); Applications of remote sensing in Geography, Digital cartography, mapping organizations and services- survey of India, NATMO, NRSA ,state organizations.

**Unit IV:** Statistical Techniques: correlation, Spearman's rank correlation and Karl Parsons product moment correlation, Simple linear, regression, residual from regression, Chi-square test and student 't' Test

***SOCIO-ECONOMIC SURVEY OF A VILLAGE***

Particular focus will be on population density, distribution, Caste Structure, Literacy Rate, and Creed work force, Land holding ratio, occupation structure, income gap, poverty analysis etc. ( For every 15 students one teacher shall accompany the group).

**TEXT BOOKS**

Monkhouse, F.J. & Wilkerson, H.R. : Maps and Diagrams, Methuen and Co. London

Raisz, E. : General Cartography, McGraw, 1977

Gregory, S. : Statistical Methods and the Geographers, Methuen and Co., 1971

Kanetkar, T.P. : Surveying and Leveling, Parts I and II

**RECOMMENDED READINGS**

Robinson, A.H. : Elements of Cartography, Chapman and Hall, London

Dickinson, G.C. : Statistical Mapping and the Presentation of Statistics, Edward and Arnold, 1973

Lawrence, G. RY. : Cartographic Methods, Methuen, 1971

Brich, T.W. : Maps Topographical and Statistical

Faith, EA. : Surveying- Theory and Practice

Higgins, A.L. : Elementary Survey

Hinks, A. : Maps and Surveying

Low, J.R.: Plane Table Mapping

Threlfair, H : A Text books of Surveying and Leveling

Lewis, P. : Maps and Statistics, Methuen, 1977

King, L.J. : Statistical Analysis in Geography, Prentice Hall, N.J.

Laeder D.R. : Aerial Photographic Interpretation

Sharma, J.P. : Prayogic Bhoogol, Rastogi & Co. Meerut, 1983

Unwin, D.J. and J.A. Dawson : Computer Programming for Geographers, Longman, 1986

Zuylen LVan : Computer Assistant Cartography, N.Y. , 1985

## **SKILL COURSE IV (GSC 404): ENVIRONMENTAL DEGRADATION, NATURAL HAZARDS AND THEIR MITIGATION**

**Objectives :** To develop an understanding of environmental degradation, natural hazards and their mitigation

### **Syllabus content-**

**Unit I:** Environmental issues: Depletion of ozone Layer, Ecological significance of ozone, protection of ozone layer; Acid rain- causes and effects.

**Unit II:** Global warming: Concept, Causes and effects of global warming

**Unit III:** Natural Hazards and their Mitigation: Meaning and Types of hazards-Earthquake, cyclones, cloud Burst, Tsunami, Flood, Avalanches and their mitigation Strategies

**Unit IV:** Environmental pollution: Air pollution, water pollution, soil pollution, noise pollution.

### **Books Recommended**

**Singh, Savindra.** 2012. *Environmental Geography. Reprinted.* Prayag Pustak Bhawan, Allahabad

**Gautam, Alka.** 2010. *Environmental Geography.* Sharda Pustak Bhawan, Allahabad, UP.

**Shitole, G.Y.** 2012. *Environmental Degradation Issues and Challenges. Serials Publications, New Delhi*

**Khullar, D.R.** 2009. *India: A Comprehensive Geography.* Kalyani Publisher, New Delhi.