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SYLLABUS FOR M.A. GEOGRAPHY

CHOICE BASED CREDIT SYSTEM

Lifective from 2016-2017

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UNIVERSITY DEPARTMENT OF GEOGRAPHY
ARTS'S BLOCK-C, MORABADI CAMPUS
RANCHI-834008, JHARKHAND

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Dr. Ram Kumar Tive

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स्नातकोत्तर भूगोल विभाग

राँची विश्वविद्यालय, राँची

University Department of Geography

Ranchi University, Ranchi

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SYLLABUS FOR M.A. GEOGRAPHY

CHOICE BASED CREDIT SYSTEM

Effective from 2016-2017

niversity Depa. of GEOGRAPHY Dr. Ram Kumar Piwari Ranchi University, Ranchi

Chairman, Board of Studies &

Head of the Department

Internal Member

Dr. Rakesh Narayan __

Dr. Rajiva Narayan 12

Dr. Jayashree Shandeo

Jayashes

Dr. Lal Girija Shankar Nath Shahded

Dr. Jitendra Shukla Anuk

Sri Seikh Islam Ansari

External Member

Prof. (Dr.) Radhe Kant Prasad

University Professor

Department of Geography

Magadh University, Bodh Gaya

(i) Lecture -L (ii) Tutorial- T (iii) Practical - P, where L stands for Lecture session, T stands for Tutorial session consisting participatory discussion / self study / desk work / brief seminar presentations by students and such other novel methods that make a student to absorb and assimilate more effectively the contents delivered in the Lecture classes and P stands for Practice session and it consists of Hands on experience / Laboratory Experiments / Field Studies / Case studies that equip students to acquire the much required skill component.

- (h) Choice Based Se mester System (CBSS): Under this system, the requirement for awarding degree or diploma or certificate is prescribed in terms of number of credits to be completed by the students/participants.
- (i) Credit Point: It is the product of grade point and number of credits assigned to a course.
- (j) Credit: A credit is a unit by which a weightage is assigned to a course work. It depends on the course content, and hence, the number of hours of instructions required per week. One credit is equivalent to one hour of teaching (L or T) and two hours of practical work/field work per week (P).
- (k) Grade Point: Numerical weight assigned to each letter grade (O, A⁺.A, B,etc.) on a 10 point scale.
- (1) Letter Grade: An index of performance of students/participants in a course denoted by letters O, A⁺, A, B, etc.
- (m) 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 constituting a semester and the total course credits taken during in that semester. It shall be expressed up to two decimal places.
- (n) Transcript or Grade Card or Certificate: Based on the grades earned, a grade certificate shall be issued to all the registered students after every semester. The grade certificate will display the course details (code, title, number of credits, grade secured) along with SGPA of that semester and CGPA earned till that semester.
- (0) An Academic Year of the courses shall commence from the month of June and shall end in the month of May of the succeeding year. Each academic year is divided into two semesters.
- (p) Semester: Each semester will have 14 15 weeks of teaching and the remaing time of the semester will be utilized for examinations, evaluation and publication of the result. Each week will impart 30 hours of teaching spread over 6 days.

4. Duration of a Programme

The Master's programmes in the Faculties of Science, Social Sciences, Huminities and Commerce leading to Master's degrees shall consist of two academic years. Each academic year shall consist of two semesters, viz, Odd and Even semesters. Odd semesters shall be generally from June/July to November/December and Even semesters shall be normally from

- Core Courses(CC): There may be Core Courses in every semester. This is the course which is to be compulsorily studied by a student as a core requirement to complete the requirement of a programme in a said discipline of study. A Core course may be a Soft Core if there is a choice or an option for the candidate to choose a course from a pool of courses from the main discipline / subject of study or from a sister / related discipline / subject which supports the main discipline / subject. In contrast to the phrase Soft Core, a compulsory core course is called a Hard Core Course.
- Elective Course(EC): This is a course which can be chosen from a pool of papers. It may be:
- (a) Supportive to the discipline of study
- (b) Providing an expanded scope
- (c) Enabling an exposure to some other discipline/domain
- (d) Nurturing students' proficiency/skill.

An elective may be "Generic Elective(GE)" focusing on those courses which add generic proficiency to the students or "Skill Enhancement(SE)" leading to adding to the skill enhancement specific to the programme. An elective may also be "Discipline Centric(DC)" or may be chosen from an unrelated discipline. It may be called an "Open Elective". The course structure, the credits assigned to each course and the details of instruction hours per week (L, T and P) for different programmes are summarized in the following sections/subsections and the associated tables.

8. Semesterwise Distribution of Courses

1 M. Sc. Programme

[a]	ole-1: Course Strucure for M.	Sc. Pro	ogramme
Semesters	Courses	Credit	Hrs./week
and suffice	FC (Compulsory) - (FC-1)	5	5(L) + 1(T)
I voi	Core Course-1 (CC - 1)	5	5(L) + 1(T)
	Core Course-2 (CC - 2)	5	5(L) + 1(T)
Library and Library	Core Course(P)-3 [CC (P)-3]	5	10
initis uimea	Elective Course (SE) (EC-1)	5	5(L) + 1(T)
II	CC - 4	5	5(L) + 1(T)
	CC - 5	5	5(L) + 1(T)
	CC (P) - 6	5	10
	CC -7	5	5(L) + 1(T)
II	CC - 8	5	5(L) + 1(T)
**	Elective(GE/DC) (EC-2)	5	5(L) + 1(T)
	EC(P) -3	5	10
And the	CC - 9	5	$\frac{10}{5(L) + 1(T)}$
V	Elective(GE/DC) (EC-4)	5	5(L) + 1(T)
atherly of	EC(P) - 5	5	5 (L) + 1(T) 5 (L) + 1(T)
	Project	5	10

10. Course Codes

Each course shall have a distinctive code. The following scheme will be followed for assigning codes to the courses:

Fouundation Course – FC[xxx(x)][0][00], where xxx(x) is three/four letters for a subject, like PHYS for Physics, PSC for Political Science, etc., the first [0] is the Semester No. and the last [00] are for serial number of the course. Example, FCBOT101, BOT for Botany and 1-Semester one, 01-paper number one.

Core Courses - CC[xxx(x)][0][00]—— Example, CCPHYS102 represents core course of the Physics programme, semester one and course number 02; CCECO402 represents core course of economics, semester 4 and core paper 2, and so on.

Elective Courses – EC[xxx(x)][0][00], the symbols have the usual meanings. The following table states the codes of different programmes:

Subject	Code[xxx(x)]	s and Their Codes Subject	Code[xxx(x)]
Anthropology	ANTH	Physics	PHYS
Bengali	BENG	Philosophy	PHIL
Botany	BOT	Political Science	POLS
Bioinformatics	BIOS	Rural Development	RUD
Biotechnology	BIOT	Sanskrit	SAN
Chemistry	CHEM	Sociology	SOC
Commerce	COMM	Tribal and Regional Languages	TRL
English	ENGL	Urdu	URD
Environmental Science	ENSC	Zoclogy	ZOOL
Economics	ECO	Psychology	PSYC
Electronics and	ECOM		
Communication			
Geology	GEOL		
Geography	GEOG		
History	HIST		
Hindi	HIN		
Home Science	HOSÇ		
Journalisma and Mass	JMC		
Communication			
Library and Information	LIS		
Science	Marchine Line	8.02 mile Britania de la fa	
Mathematics	MATH		

11. Board of Studies

Every Department / College running a programme shall constitute a board of studies, duly approved by the University, to frame the courses. The Head of the Department / Principal shall be the Chairman of the board and it will essentially have at least one invited external expert in addition to the faculty members of the Department as per the provisions of the statute. The elective courses shall be framed with the help of the experts to include the recent

advances in the subject/field concerned and would focus on the discipline/interdisciplinary specific areas of research.

12. Examination Framework

12.1. Marks Weighate and Scheme of Examination

- (a) Marks Weightage of a Course: Each non-practical /non-project course (FC/CC/EC) shall be of 100 marks having two components: 70 marks shall be assigned to the End Semester University Examination (ESUE), conducted by the University, and, 30 marks for Sessional Internal Assessment (SIA), conducted by the Department/College. The marks of SIA shall further break into, 20 for Internal Written Examinations, 05 for Written Assignment and 05 for overall performance of a student including regularity in the class room lectures/seminars and other activities of the Department/College. There shall be two written internal examinations, each of 1 hour duration and each of 20 marks, in a semeste, out of which the best one shall be taken for computation of marks under SIA.
 - Practical / Project courses would also be of 100 marks but there shall be no internal written examinations of the type specified above. The total 100 marks will have two components: 80 marks for the practical ESUE and 20 marks for the Viva-voce examination conducted during the ESUE to assess the applied and practical understanding of the student. The written component of the project (Project Report) shall be of 80 marks and 20 marks will be for the Viva-voce examination jointly conducted by an external examiner, appointed by the University, and the internal supervisor/guide.
- (b) ESUE: End semester University examinations for ODD semesters (1st & 3rd semesters) will normally be held in the month of December every current academic year and will be of three hours duration. Similarly, the end semester University examinations for EVEN semesters (2nd & 4th semesters) will normally be conducted in the month of June every current academic year and will be of three hours duration. There will be a uniform pattern of questions for all the courses and of all the programmes. A total of EIGHT questions will be set in each course for the ESUE in which Question 1 will be Short Answer Type Question and will be COMPULSORY. Any FOUR questions shall have to be answered by the examinees out of the remaining SEVEN questions. The questions will be of equal marks and will

be so framed that the students are able to answer them within the stipulated time.

12.2. Coverage of the Syllabus

The teacher(s) allotted to teach a course shall be responsible for completion of the entire syllabi and other associated responsibilites. The Head of the Department/Principal of the College shall co-ordinate the entire teaching programme. In case a teacher fails to complete the course within the time frame due to some unforeseen circumstances, he/she shall take extra classes to complete the course. The Head of the Department/Principal of the College shall get a course completion certificate from every course teacher(s) at the end of the semester.

(b) Minimum Passing Grade In a Course: To earn acdemic credits requisite for a non-practical / non-project course, a student would have to secure a grade 'P' specified in Table-6. In absolute terms of marks obtained in a course, a minimum of 28 marks is essential in the ESUE and a minimum of 17 marks is to be secured in the SIA to clear the course. In other words, a student shall have to pass separately in the ESUE and in the SIA by securing the minimum marks prescribed here.

For practical/project courses the grade to clear the same would also be 'P' to be determined by the cumulative marks obtained at the ESUE inclusive of the marks

obtained in the Viva-voce component.

For non-credit courses, if any in a programme, "satisfactory or unsatisfactory" shall be indicated instead of the letter grade and this will not be counted for the computation of SGPA/CGPA.

A student obtaining Grade F in a course shall be considered "failed" and will be

required to reappear in the examination.

(e) Computation of Semester Grade Point Average (SGPA) and Cumulative Grade Point average (CGPA): The following formulae shall be used to calculate the SGPA and CGPA:

$$SGPA = \frac{\sum_{Courses} [(Credits in each course) \times (Grade point in that course)]}{Total No. of Credits in that semester}$$

where the summation is over all the courses in a semester. SGPA shall be rounded up to 2 decimal places.

$$CGPA = \frac{\Delta ll}{Semesters} \frac{\sum\limits_{Semesters} [(SGPA \text{ of each semester}) \times (\text{Total Credits in that Semester})]}{\text{Total No. of Credits of all the Semesters}}$$

where the summation is to be taken over all semesters in a programme. The result should be rounded up to 2 decimal places. For merit list, in case of equality, the CGPA shall be computed beyond two decimal places till the equality is resolved.

- (f) In order to pass in a Semester examination the minimum SGPA required is 4.5 and a minimum of 4.5 GP in individual theory, practical and other credit components.
- (g) Requirement for Promotion to Higher Semester: A candidate shall be permitted to proceed from the First Semester to the 2nd, 3rd and 4th semester provided he has passed at least in 50% of the courses in the respective semester in theory and practical/project courses taken together.
- (h) A candidate, who fails to clear a course/courses in any semester, will have to clear the same in the succeeding relevant semesters but he/she shall have to clear all the failed courses of a programme within three years from the year of admission/registration in the programme concerned.

14. Award of Degree

A candidate shall be elligible for the award of degree only if, he/she

• has completed the prescribed courses of study in a Department/College of this University for all the four semesters

- has passed all the examinations prescribed for all the four semesters
- has secured the total number of credits including the project/dissertation of the concerned programme.

15. Special Examination

There will be a provision for one special examination, if the University deems it necessary, every year in the month of December/January on the recommendation of the Examination Boardof the University for those students who failed to clear the course(s) in earlier examinations.

16. Conversion of Grades

Although the CBCS and CGPA system requires the quoting of the grade and SGPA(CGPA) in the result of a Semester(Programme), a formula for the conversion of CGPA into percentage of marks is desirable. The percentage of marks shall be calculated according to the formula,

Percentage of Marks=CGPA \times 10.

Accordingly, a student after successful completion of all the semesters, the following classification may be stated in the Degree,

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Table-7:	Conversion	of	Grades

CGPA	Equal to or greater than 7.5	First Class with Distinction
-do-	Equal to or greater than 6.0 but less than 7.5	First Class
-do-	Equal to or greater than 4.5 but less than 6.0	Secongd Class
-do-	Less than 4.5	Fail

17. Grade Sheet

Every candidate, at the end of each semester and after the publication of the result, shall be given 'Grade Sheet' and every successful candidate after the completion of all the four semesters course requirements shall be given 'Final Grade Sheet' and the 'Provisional Certificate' in a prescribed format [See Appendix A, B and C]. Degree shall be awarded to successful candidates in the ensuing convocation.

18. Provisions for Improvement

A candidate who has passed in a theory paper/ in theory courses may be permitted to improve his/her marks by appearing in the ESUE, if he/she wishes to, by paying the requisite fee prescribed by the University time to time. However, this opportunity can be availed only once for any course and that also only within a maximum of 8 semesters counting from his/her first semester of admission. If a candidate avails this opportunity and improves the marks in a course or courses, the same shall be considered only for a change in his SGPA/CGPA as per the improved marks and such improvements will not be considered for the award of prizes/medals,rank and distinction, if any. If the candidates fails to improve

COURSE STRUCTURE FOR M.A. (GEOGRAPHY)UNDER CHOICE BASED CREDIT SYSTEM PROGRAMME

Paper Code	Paper Title	Type	Total Marks	Cre	Hours/ Week
FCGEOG101	Development of Geographical Thought	FC-1	100	5	5L + 1T
CCGEOG102	Geomorphology	CC-1	100	5	
CCGEOG103	Climatology	CC-2	100	5	5L + 1T
CCGEOG104	Practical	CC-P3	100	5	$\frac{5L + 1T}{10P}$
	Total	Thermal	400	20	101

	2 nd SEMESTE	R	14		
Paper Code	Paper Title	Туре	Total Marks	Credit	Hours/ Week
ECGEOG201.1 ECGEOG201.2 ECGEOG201.3	Elective (SE) EC-1 (Any one) 1. Agriculture Geography 2. Settlement Geography 3. Tourism Geography	EC-1	100	5	5L+1T
CCGEOG202	Oceanography	CC-4	100	5	5L + 1T
CCGEOG203	Population Geography	CC-5	100	5	5L + 1T
CCGEOG204	Practical (Instrumental Survey)	CC-P6	100	5	10P
	Total		400	20	13,74,01

	3rd SEMESTER			9	
Paper Code	Paper Title	Type	Total Marks	Cre	Hours/ Week
CCGEOG301	Geography of India	CC-7	100	5	5L + 1T
CCGEOG302	Economic Geography	CC-8	100	5	5L + 1T
ECGEOG303.1 ECGEOG303.2 ECGEOG303.3	Elective (GE/DC) EC-2 (Any one) 1. Hydrology and Water Resources 2. Regional Planning& Develop. 3. Environmental Geography	EC-2	100	5	5L + 1T
ECGEOG304	Practical (Physical Survey)	EC-P3	100	5	10P
authorit mah	Total	n a june I	400	20	

	4 th SEMESTE	R			
Paper Code	Paper Title	Type	Total Marks	Credit	Hours/ Week
CCGEOG401	Geography of Jharkhand	CC-9	100	5	5L + 1T
ECGEOG402.1 ECGEOG402.2 ECGEOG402.3 ECGEOG403.1	Elective (GE/DC) EC-4 (Any one) 1. Soil Geography 2. Urban Geography 3. Remote Sensing & GIS/GPS 1. Soil Geography& Hydrology-P	EC-4	100	5	5L + 1T
ECGEOG403.2 ECGEOG403.3 GEOG404	2. Urban Geog. & Reg. Planning-P 3. Remote Sensing & GYS/GPS-P Project (Dissertation)		100	5	100
	Total		400	20	10P

Paper CCGEOG102 - GEOMORPHOLOGY

Full Marks: 100 - SIA: 30, ESUE: 70, Pass Marks: 45, Credit-5, Time-3 Hrs.

Out of eight questions (two from each unit) four are to be answered.

Unit 1:

Geomorphology: Definition and Scope of Geomorphology, Fundamental concepts – Geological structure and land forms, Uniformitarianism, Multi cyclic and Poly cyclic evolution of landforms, Theories of landscape development

Unit 2:

Earth Movements: Orogenic, Epirogenic Movements and resultant landforms, Forces of instability, Isostasy, Plate Tectonics, Seismicity, Vulcanicity, Orogenic structures with reference to the evolution of the Himalayas.

Unit 3:

ExogenicProcesses: Concept of gradation, Agents and processes of gradation, Process of Weathering and Mass Wasting, Landforms produced by - Drainage system and Drainage patterns, Slope evolution.

Unit 4:

GeomorphicProcesses: Dynamics of Aeolian, Marine, Glacial, Coastal processes and resulting landforms, Recent Trends in Geomorphology, Applied geomorphology: Urban geomorphology, Geomorphic hazards.

- 1. Ahmed E. (1985) Geomorphology, Kalyani Publishers, New Delhi.
- 2. Strahler A.N. (1968) The Earth Sciences, Harper & Row Intl. Edn, New York
- Thornberry W.D. (1969) Principles of Geomorphology 2nd Edition, Wiley Intl. Edn. & Wiley Eastern Reprnts 1984.
- 4. Verstappen H. (1983) Applied Geomorphology, Geomorphological Surveys for Environmental Development, Elsevier, Amsterdam
- 5. Woodridge S.W and R.S. Morgan (1991) An Outline of Geomorphology, The Physical Basis of Geography, Orient Longman, Kolkata.
- 6. Dayal P. (1995) A Text Book of Geomorphology 2nd Edition., Sukla Book/Dept. Patna.
- 7. Homes A. (1965) Principles of Physical Geology, 3rd Edition, ELBSS Edn.
- 8. Goudie Anrew et.al. (1981) Geomorphological Techniques, George Allen & Unwin, London.
- 9. Bloom A.L. (1978) Geomorphology: A Systematic Analysis of Late Cenozoic Landforms Prentice Hall of India, New Delhi.
- 10. Singh, Savindra (2001): Bhuakriti Vigya, Pravalika Publications, Allahabad.
- 11. Singh, Savindra (2015): Bhautik Bhugol, Pravalika Polications, Allahabad.
- 12. Worcester P.G. (1965), A Text Book of Geomorphology, Can North and 2nd Edition, East-West Edn. New Delhi.
- 13. J.A. Steers: Unstable Erath
- 14. Tiwari, Ram Kumar (2016) BhoutikBhugol, Hindi Granth Academy, Jaipur, (Raj.)

Paper CCGEOG104 - PRACTICAL

Full Marks: 100 - ESUE: 80, Record& Viva: 20, Pass Marks: 50, Time-6 Hrs.

Four questions are to be answered (one from each unit)

Unit 1:

Map Projection: Sinusoidal Projection (Simple), Mollweide's Projection (interrupted), Globular Projection, Gnomonic Projection (Polar, Equatorial and Oblique).

20 Marks

Unit 2:

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Geological Maps: Construction of sections and interpretation, Identification of rocks and minerals.

20 Marks

Unit 3:

Triangular Graph, Poly Linear Graph, Scattered diagram, Lorenz Curve, Divided Rectangular diagram.

20 Marks

Unit 4:

Profiles: Serial, Superimposed, Projected and Composite, Slope analysis (Wentworth's Method), Stream ordering.

20 Marks

Practical Record

10 Marks

Viva-Voce

10 Marks

- 1. Monkhouse F.J and Wilkinson HR (1952) Maps and Diagrams, their compilations and concentration, Muthuen& Co. London.
- 2. Harwel JD, Newson MD. (1973)- Techniques in Physical Geography, Mc. Millan Edu. Ltd. London.
- 3. Mishra RP. And Ramesh A (1968) Fundamentals of Cartography, Prasaranga, University of Mysore, Mysore.
- 4. Robinson & Marison (1995), Elements of Cartography USA.
- 5. R.L. Singh (2010) Practical Geography, SharadaPustakBhavan, 11, University Road, Allahabad, UP India

- 6. Jasbirsingh (2001): Agricultureal geography, PrayogPustakBhavan, 20 A, University road, Allahabad-211002, UP.
- 7. Memonia CB (1998): Aricultural Problems in India: PrayogPustakBhavan, 20 A, University road, Allahabad-211002, UP.
- 8. Majid Husain (2007): Systematic Agricultural Geography, Rawat publications, Jawahar Nagar, Jaipur, New De'hi 92.
- 9. Goh Cheng Leong & Gillian C. Morgan (2009): Human and Economic Geography, Oxford University Press, New Delhi, New, York.
- 10. The Hindu Publications: 2005 to 2010; Survey of Indian Agriculture.

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- 11. Tiwari, R.C., & Singh, B.N. (2015): KrishiBhugol, Prawalika Publications, Allahabad
- 12. Singh, Indira (2007): KrishiBhugol, Discovery Publishing Home, New Delhi.
- 13. Lesely Simon (Translated by ShyamSundarKatare) (1989) :KrishiBhugol, Madhya Pradesh Hindi Granth Academy, Bhopal.

Paper ECGEOG201.2 - SETTLEMENT GEOGRAPHY

Full Marks: 100 - SIA: 30, ESUE: 70, Pass Marks: 45, Credit-5, Time-3 Hrs.

Out of eight questions (two from each unit), four are to be answered.

Unit 1:

General Introduction, Evolution & Distribution of Settlements: Nature, Scope, Significance and Recent Trends in Settlement Geography. Evolution of Settlements in India: Emergence of Village Settlements, Origin and Growth of Towns; Basic and Non-Basic Concepts in Settlement formation. Distribution of Settlements, Spacing of Settlements-Application of Models of Christaller and Losch.

Unit 2:

The Functional classification of Settlements:Rural and Urban Settlements. Rural Settlements - Types of Rural Settlements, House Types, Morphology and Functions of Rural Settlements; Rural Service Centers and their Role in Urbanization Process. Indian Rural Settlements in Different Micro-Environmental Conditions: (a) Mountains (b) Desert Region (c) In the vicinity of Urban Centers.

Unit 3:

Urban Settlements - Classification of Urban Places: Non-Functional and Functional. Morphology of Indian Cities and Its Comparison with Western Cities; Functional Relations between Urban Settlements and their umlands.

Unit 4:

Theories in Settlement Geography— CBD, Centrifugal and centripetal forces theory, Urban Fringe, Urban structures theories. Rank size relationship. Settlement Geography of selected Indian Cities: Mumbai, Kolkata, Delhi, Chennai, Ranchi, Jamshedpur and Dhanbad.

- 1. Hudson, F. S. (1976) Geography of Settlements, Macdonald, London.
- 2. Northam Ray, M. (1979). Urban Geography, John Wiley and Sons, New York.
- 3. Ambrose, Peter, 1970: Concepts in Geography, Vol.-I, Settlement Pattern, Longman.
- 4. Baskin, C., (Translator) 1996: Central Places in Southern Germany, Prentice-Hall Inc. Englewood Cliffs New Jersey.

Paper ECGEOG201.3 - TOURISM GEOGRAPHY

Full Marks: 100 - SIA: 30, ESUE: 70, Pass Marks: 45, Credit-5, Time-3 Hrs.

Out of eight questions (two from each unit), four are to be answered.

Unit 1:

Definition, Nature, Scope and Extent, Concept of Tourism, Importance of Tourism, Relationship between Geography and Tourism, Ecotourism, Agro-tourism, Heritage tourism and Adventure tourism.

Unit 2:

Types of Tourism – Domestic and International Tourism, Adventure, Wildlife, Medical, Pilgrimage, Business, Leisure, Pleasure, and Cultural Tourisms, Tourists types – Local, National and International, Economic and socio-cultural impact of Tourism.

Unit 3:

Infrastructural approach for the development of Tourism – Mode of transportation, Govt. agencies, Guides, License, Hotels, Resorts, Youth Hostels, Home stays, Government policies for planning and promotion of Tourism in India. Prospects and planning of tourism in Iharkhand.

Unit 4:

Case Studies –Hill Station– Mount Abu, Shimla, Ooty, Beach Points– Kwalum, Goa and Marino Beach. Historical Centres–Mysore, Jaipur and Agra, Religious Centers– Puri, Shirdi and Tirupathi, Dams–SardarSarovar, Bhakranangal and Masanjore dam, National Parks –Gir National Park, Palamu Tiger Reserve, Betla, NandanKanan National Park, Bhubaneshwar.

- 1. Bhatia A.K (1996): Tourism Development: Principles and Practices. Sterling Publishers, New Delhi.
- 2. Kaul R.K (1985): Dynamics of Tourism and Recreation, Inter- India, New Delhi.
- 3. Kaur, J. (1985): Himalyan Pilgrimages and New Tourism, Himalyan Books, New Delhi
- 4. Milton, D. (1993): Geography of World Tourism, Prentice Hall, New York
- 5. Peace, D. G. (1987): Tourism To-Day: A geographical Analysis, Harlwo, Longman
- 6. Robinson, H. A.(1996): A geography of Tourism, McDonald and Evans, London
- 7. Sharma, J. K. (ed.)(2000): Tourism, Planning and Development- A New Perspective, Kanishka
- 8. Singh, R. L. and Kashi Nath Singh (Ed.) 1975: Readings in Rural Settlement Geography, National Geographical Society of India, Varanasi.
- 9. Kapooor, B.K. (2008) ParyatanBhugol, Vishwa Bharti Publication, Delhi.

Paper CCGEOG203 - POPULATION GEOGRAPHY

Full Marks: 100 - SIA: 30, ESUE: 70, Pass Marks: 45, Credit-5, Time-3 Hrs.

Out of eight questions (two from each unit), four are to be answered.

Unit1:

Nature and Scope of Population Geography, Population Geography and Demography, Sources of Population Data, Distribution and Density of Population, Distribution and its Pattern in the World, Factors Influencing Distribution of Population in the world.

Unit 2:

Concept of Population Composition, Population Change: Growth of Population in the World and India, Components of Population Change, Fertility, Mortality and Migration, Determinants of Fertility and Mortality, Demographic Transacion Theory.

Unit 3:

Migration- Meaning and Types, Causes and Consequences, Theories of Migration - Ravenstein Lee.

Unit 4:

Population and Resources, Optimum Population, Population Resource Regions, Malthus Population Theory, Population Policy of India.

- 1. Chandna R.C. (2009), Geography of Population, KalyaniPublicishers, Ansari Road, Daryagani, New Delhi-2.
- 2. Majid Hussain (1999), Human Geography, Rawat Publications, Jaipur.
- 3. Trewartha GT. (1959) A Geography of Population, World Patterns, John Wiley and Sons Inc. New York.
- 4. Ghosh BN. (1987) Fundamentals of Population Geography, Sterling Publishing Company, New Delhi
- 5. R.K. Tripati ((2000) Populaton Geography, Commonwealth Publishers, New Delhi.
- 6. Kayastha, S.L. (1998) Geography of Population, Rawat Publications, Jaipur.
- 7. Clerk I (1984) Geography of Population, Approaches and Applications, Pergamon Press, Oxford, UK.
- 8. Tiwari, Ram Kumar (2015): JansankhyaBhugol, Prwalika Publication, Allahabad.
- 9. Hiralal (2007): JansankhyaBugolKeMulTatwa, Radha Publication, New Delhi.
- 10. Mourya, S.D. (2011): JansankhyaBhugol, ShardaPustakBhawan, Allahabad.
- 11. Dubey, K.K. & Singh, M.B. (2001): JansankhyaBhugol, Rawat Publication, Jaipur

- 4. R.L. Singh (2010) Practical Geography, SharadaPustakBhavan, 11, University Road, Allahabad, UP India
- 5. Singh RL. (1979) Elements of Practical Geography, Kalyani Publishers, New Delhi.
- 6. Kaanetkar and Kulkarni: Surveying and Levelling, Part-I and Part-II.
- 7. R.L. Singh (2010) Practical Geography, SharadaPustakBhavan, 11, University Road, Allahabad, UP India
- 8. Sharma, J.P. (2011): PrayogikBhugol, Rastogi Publications, Meeruth.
- 9. Chouhan, P.R. (2005) PrayogikBhogol, VasundharaPrakashan, Gorakhpur.
- 10. Hiralal (2006): Prayogik Bhugol, Radha Publications, New Delhi
- 11. Tiwari, R.C. & Tripathi, S. (2011): Prayogatamak Bhugol, Prawalika Publications, Allahabad.
- 12. Khullar, D.R. (2002): PrayogatamakBhugolKeTatwa, New Academic Publishing Company, Jalandhar.

Paper CCGEOG302 - ECONOMIC GEOGRAPHY

Full Marks: 100 - SIA: 30, ESUE: 70, Pass Marks: 45, Credit: 5, Time: 3 Hrs.

Out of eight questions (two from each unit), four are to be answered.

Unit 1:

Nature, Scope and importance of Economic Geography, Evolution of Economic Geography, approaches to economic Geography, Concept of Economy, Spatial structure of the economy, Economy and economic Geography.

Unit 2:

Primary Economic Activities: Hunting, Fishing, Food gathering, Herding, Timbering, Agriculture and Mining. Commercial Economic Activities: Dairying, Mixed Farming, Poultry, and Plantations. Fishing and Forestry: Law of the sea, fishing grounds and aquaculture. Issues and challenges for the development of fishing and forestry.

Unit 3:

Knowledge-based Technologies: Electronic age, Spatial Information Technology, Telecommunication, High tech-transport, Effects of Liberalization, Privatization and Globalization (LPG) on Economic activities in the World and India.

Unit 4:

Economic Development: Growth and Development, Definition, Concept, Contents of Development and Sustainable Development. Human Resource Development: Concept, Measurement, Indicators and Components.

- 1. Alexander (1975): Economic Geography
- 2. Guha J.L. and Chattoraj (2004), A New approach to Economic Geography, A Study of Resources, The World Press Pvt. Ltd. Culcutta.
- 3. Zimmerwan- World Resources and Industries
- 4. Khanna K.K. and Gupta V.K (1993) Economic and Commercial Geography, Sultan Chand, New Delhi.
- 5. Mallappa P. (2004) UdyamSaupahmagalu, Chetan Book House, Mysore
- 6. Roy. PR. (2001) Economic Geography- A study of Resources, New Central Book Agency, (P) Ltd. Calcutta.

- 7. P. Hagget (1997), Geography, A Modern Synthesis, Haper and RooPublications, New York.
- 8. Dubey RN. And Negi BS (2002)- Economic Geography of India, Kitabmahal, Allahabad.

Paper ECGEOG303.2 - REGIONAL PLANNING AND DEVELOPMENT

Full Marks: 100 - SIA: 30, ESUE: 70, Pass Marks: 45, Credit: 5, Time: 3 Hrs. Out of eight questions (two from each unit), four are to be answered.

Unit 1:

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Concept of Region: Types, hierarchy and characteristics of regions, Delineation methods of regions - Formal, Functional and Nodal. Geography and regional planning. Concept and scope of Regional Planning. Regional Approaches. Principles, methods, techniques of regional planning, need for planning.

Unit 2:

Conceptual and theoretical frame work of regional planning: Growth pole and growth foci. Planning Processes: Sectoral, Multilevel, decentralized planning. Integrated Area Development Planning (IADP). Planning for tribal and hill areas, drought prone areas, command areas and watershed. Planning for metropolitan region: CDP, satellite towns, urban green belt.

Unit 3:

Concept of Development, Indicators of development. Regional imbalance. Regional development strategies. Problems and issues in regional planning. Sustainable development of regions. Regionalization of India: Based on natural, economic and administration (macro and meso levels only).

Unit 4:

Theories of regional development: Central Place Theory, Diffusion theory (Hegerstand's). The role of locational theories in regional planning process. An evaluation of regional disparities / imbalances - backward regions of India. Identification of backward areas, Planning backward area. Harnessing the information through GIS, Remote Sensing, GPS for regional planning and development.

- 1. Tiwari R. C. (2005) Geography of India, Prayoug Pustak Bhavan, Allahabad.
- 2. Singh Jagadish (2003) India A Comprehensive Systematic Geography, GyanodayaPrakashan, Gorakhpur, U.P.
- 3. Mishra R. P (1969) Regional Planning Concepts Techniques Policies and case studies, Prasaranga, The Mysore University, Mysore.
- 4. V.K.R.V. Rao (1978). Planning in Perspective, Allied Publishers Private Limited, Bombay.

Paper ECGEOG303.3 - ENVIRONMENTAL GEOGRAPHY

Full Marks: 100 - SIA: 30, ESUE: 70, Pass Marks: 45, Credit: 5, Time: 3 Hrs.

Out of eight questions (two from each unit), four are to be answered.

Unit 1:

Nature and Interdisciplinary Aspect of Environmental Geography. Ecological Approachs. Definition and Meaning of environment. Habitat. Ecological Niche. Bio-sphere and Biodiversity.

Unit 2:

Ecosystem: Structure and Functioning of Ecosystem, Pond as a Ecosystem, Food Chains, Food Webs, Food Pyramid. Biomes — Equatorial to Tundra i.e 11 types. Man and Environmental Relationships. Resource Use and Ecological Imbalance with reference to Soil, Forests and Energy Resources. Man Made Ecosystem - Urban, Ecotourism, National Parks and Sanctuaries. Depletion of Ozone, Green House Effect and Acid Rain.

Unit 3:

Man Induced Changes in Environment: Environmental Pollution, i.e. Air, Water, Noise, Solid Waste with special reference to India. Environmental Hazards, i.e. earth as Warehouses, Flood, Famines, Land Slides, Avalanches, Forest Fires, Impact of Green revolution and Extinction of Species.

Unit 4:

Principles of Environmental Management- Environmental Policy of India, (post 2000AD). Environment Impact Assessment (EIA). Global Summits and Agencies of Environment Conservation.

- 1. Strahler A.N. (1968) The Earth Sciences, Harper International Education, New York.
- 2. Richard H.B. (2004) Physical Geography, Heinmann Simple Services, Rupa& Company, New Delhi
- 3. Robinson H. (1982) Bio Geography, ELBS, New York.
- 4. Healey I.N. and Moore P.D. (1973) Bio-Geography, Backwell Oxford, U.K.
- 5. Strahler A.N. and Strahler A.H. (1973) Environmental Geo Science, Hamilton, California.
- 6. Savindra Singh (2004) Environmental Geography, Prawalika Publication, Allahabad,
- 7. Savindra Singh (2004) PryawaranBhugol, Prawalika Publication, Allahabad,
- 8. Paul Selman (2000) Environmental Planning, Sage Publicatoins, New Delhi.
- 9. Tiwari, Ram Kumar (2005): Pryawaran Adhyayan, Luxmi Publications, New Delhi.
- 10. Rao, B.P. (2000): Paryawaran Bhugol, Vasundhara Prakashan, Gorakhpur.
- 11. Strahler A.N. and Strahler A.H. (1977) Geography and Man's Environment, John Wiley & Sons, New York.

Paper ECGEOG304 - PHYSICAL SURVEY (PRACTICAL)

Full Marks: 100 – ESUE (Survey Rep.): 60, Written: 20, VIVA: 20
Pass Marks: 50, Time: 6 Hrs.

Objective:

The main objective of the field work (Physical Survey) is to conduct an extensive survey of a contiguous wider region of India and identify salient landforms, their genesis and their impact on human life, flora and fauna. It is an extensive field study outside the class room and the University provides the requisite fund for conducting the survey.

Unit 1:

Trace the prominent features of the area to be surveyed. Identify the salient landform features of the selected area on a topographical sheet.

Unit 2:

Identify the landforms on the surface, while in the field. Also note the agents of erosion, transportation and deposition associated with the landforms.

Unit 3:

Identify and classify the biodiversity in the area (Flora and Fauna).

Unit 4:

Observe the relationship of various landforms, flora and fauna with land use, settlement, structure and life style of the people.

Based on observations of the above characteristics, prepare a field survey report. The report need to be supplemented with maps, sketches, diagrams and photographs etc.

The practical exercises should aim at identification of micro-geomorphic features on the ground and their relationship to land use/settlement pattern. This is also a training in Report Writing.

- 1. Physical Survey report will have to be submitted to the H.O.D. ten days before examination and it will be placed before the external examiners who will ask questions related to the concerned report.
- 2. Marking will be made on the basis of the report presentation (60 Marks), Written Exam (20 Marks) and viva (20 Marks).

- 1. Birkeland, P. W (1999): Soils and Geomorphology, Oxford University Press, New York
- 2. GovindaRajan, S.V. and Gopala Rao, H.G.: Studies on soils of India, Vikas, New Delhi, 1978.
- 3. Raychoudhuri, S.P.: Soils of India, ICAR, New Delhi, 1958.
- 4. Bunting, B.T.: The Geography of Soils, McGraw Hill, New York.
- 5. Clarke, G.R.: Study of the Soil in the Field, Oxford University Press, Oxford, 1957.
- 6. Foth H.D. and Turk, L.M.: Fundamentals of Soil Science, John Wiley, New York, 1972.
- 7. Bennet, B.T.: Soil Conservation, McGraw Hill, New York.

Paper ECGEOG402.2 - URBAN GEOGRAPHY

Full Marks: 100 - SIA: 30, ESUE: 70, Pass Marks: 45, Credit: 5, Time: 3 Hrs.

Out of eight questions (two from each unit), four are to be answered.

Unit 1:

Nature and scope of Urban Geography-Definition of Urban Settlements (Towns, Cities and Metro etc.), Attributes of urban places during ancient, medieval and modern period, Classification of urban settlements on the basis of size and function, Urban growth and theories, Central Place theory of Christaller and Losch, Contribution of Indian scholars to the studies of urban settlements.

Unit 2: Urban Population Density and Land Value Curves- Urban Land Use -- Vertical and Horizontal Growth of Cities, Concentric, Zonal and Multiple Nuclei Theories of Urban Structure.

Unit 3: Urban Functions- Basic and Non-Basic- Urban Hierarchy- Rank-Size Rule - Central Place Theory - Functional Classification of Towns by C.D. Harris and H.J. Nelson. Urban Issues & Challenges: Water supply, traffic congestion, solid waste, smog, sewage and drainage system.

Unit 4: Concept of City, Region and Urban Hinterland – Urban Sprawl- Urban Slums – Urban Crimes and their Trend s with reference to India- Concept and Issues of Peri-Urbanization. Elements of Urban Planning – Urban Renewal – Policies of Urban Development in India – Master Plans of Ranchi City.

References:

- 1. Beanjen-Garnier J&G. Chabot (1967) Urban Geography, Jhonwiley, New York.
- 2. Northham Ray M. (1975) Urban Geography, Jhon Wiley & Sons, Inc. New York
- 3. RananPaddison (2001) Hand Book or Urban Studies, University of Glasgow, U.K., Sage Publications, New Delhi.
- 4. Peter Roberts (2000) Urban Regeneration, University of Dundee, U.K., Sage Publication, New Delhi.
- SaskiaSassen (2000) Cities in a World Economy, University of Chicago, USA, Sage Publications, New Delhi.
- 6. Stephen Ward (2004) Planning and Urban Change, Sage Publications, New Delhi
- 7. Karen Stromme Christensen (1999) Cities and Complexity, University of California, Berkely USA, Sage Publication, New Delhi.

Paper ECGEOG402.3 - REMOTE SENSING, GIS AND GPS

Full Marks: 100 - SIA: 30, ESUE: 70, Pass Marks: 45, Credit: 5, Time: 3 Hrs.

Out of eight questions (two from each unit), four are to be answered.

UNIT I:

Stages in Remote Sensing data acquisition; Physics of Remote Sensing; Electro Magnetic Spectrum (EMS); EMR and its interaction with atmosphere and earth surface features.

UNIT 2:

REMOTE SENSING - Platforms: Types and their orbital characteristics; Sensors types: active and passive; Sensors systems: whiskbroom and push broom; Satellite series: IRS, SPOT, IKONOS and Quick bird.

UNIT 3:

DIGITAL IMAGE PROCESSING: Digital data formats; Image Restoration: geometric radiometric corrections and filtering. Image Enhancement: linear and non linear contrast stretch; Band combinations; Image Classifications: supervised and unsupervised.

UNIT 4:

GEOGRAPHIC INFORMATION SYSTEM AND GLOBAL POSITIONING SYSTEM: Components of GIS; Data Structures; Data Base Management System (DBMS); Data Models; spatial data analysis and applications; Fundamentals of GPS; Segments of GPS; GPS Applications.

- Lillesand T.M and Keifer R.W. 2008(6th edition). Remote Sensing and Image Interpretation.
 John Wiley and Sons, New York.
- 2. Joseph George. 2005(2nd edition), Fundamentals of Remote Sensing. University Press. Hyderabad
- 3. Sabins, F.F. 1986. Remote Sensing: Principles and Interpretation. Freeman, New York
- 4. Rashid S.M. and Mazhar A.K. 1993. Dictionary of Remote Sensing. Manak Publishing House,
- 5. Delhi
- 6. Lo, C.P.and Yeung AKW. 2006(2nd edition). Concepts and Techniques of GIS, Prentice Hall of India, New Delhi.
- 7. Masood, A.S. 2006. Introduction to GIS, Allahabad.
- 8. Fazal S. and Rahman A. 2007. GIS Terminology. New Age International Publishings, New Delhi
- 9. Leick. A. 2003(2nd edition). GPS Satellite Surveying. John Wiley and Sons, New York.
- 10. N.K. Agarwal. 2004. Essentials of GPS, Spatial Network Pvt. Ltd.

Paper ECGEOG403.2 Urban Geography & Reg. Planning (PRACTICAL) Full Marks: 100 - ESUE: 80, RECORD & VIVA: 20, Pass Marks: 50, Time: 6 Hrs.

Unit 1:

Spherical Diagram, Isopleth, Volumetric or Sten de Geer's method, Traffic Flow Diagram.

Unit 2':

Distribution Maps: Uninhibited village in Jharkhand, Industrial Concentration Map, Regional Pattern of Urbanisation, Regional Pattern of Agricultural Labourers in Jharkhand.

Unit:

Delimitation of Planning Regions, Proposing Growth Foci.

Unit 4:

Planning of Satellite Town, Planning of Garden Town, Planning Resource Association Regions.

References:

- 1. Tiwari RC & Tripathi, Sudhakar (2014) Prayogatamak Bhugol, Prawalika Publiaction, Allahabad
- 2. Chouhan. P.R. (1998) Prayogatmak Bhugol, Vasundhara Prakashan, Corakhpur
- 3. Singh, L.R. (2013) Prayogik Bhugol Ke Sidhant, Sharda Pustak Bhawan
- 4. Sharma, J.P. (2005) Prayogik Bhugol, Rastogi Publication, Meerut
- 5. Monkhouse, F.J. (1963) Maps and diagrams, Mathueh & Co.Ltd London
- 6. Chnada, RC (2003) Pradeshik niyojan Tatha Vikas, Kalyani Publications New Delhi
- 7. Prakash Rao LVS (1963) Regional Planning, Asia Publication House, London
- 8. Bhat, L.S. (1971) Regional Planning in India, SPS Calcutta

Paper GEOG404 - DISSERTATION

Full Marks: 100 - ESUE: 80, VIVA-VOCE: 20, Pass Marks: 50, Time: 6 Hrs.

- 1. Each student enrolled for examination in 4th Semester will have to complete a Dissertation for which an area, preferably any Community Development Block was to the Department will be selected by the DRC.
- 2. Different topics will be allotted to each student under a supervisor (Faculty of the Department).
- 3. Students will complete the work within specified period and submit the Dissertation thesis to the H.O.D. 15 days before the practical examination.