

GONDWANA UNIVERSITY GADCHIROLI

CHOICE BASED CREDIT SYSTEM SEMESTER PATTERN SYLLABUS

FOR

B.A. GEOGRAPHY

Semester wise Distribution of Marks

Sr. No.	Class	Semester	Subject	Theory paper Marks	Internal Assessment	Practical Mark	Total Mark
1	B.A. Part I	I	Core Subject Introduction to Geography	50	20	30	100
2	B.A. Part I	II	Core Subject Climatology	50	20	30	100
3	B.A. Part II	III	Core Subject Geomorphology	50	20	30	100
4	B.A. Part II	IV	Core Subject Geomorphology and Oceanography	50	20	30	100
5	B.A. Part III	V	Elective Subject I) Geography of Maharashtra II) Bio Geography III) Geography of Tourism	50	20	30	100
6	B.A. Part III	VI	Elective Subject I) India – A Geographical Analysis II) Cultural Geography III) Geography of Health	50	20	30	100
				300	120	180	600

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B.A. GEOGRAPHY

PATTERN OF EXAMINATION (ALL SEMESTER)

Theory :

One theory paper of 50 marks each and of three hours duration will be conducted at the end of each semester.

Practical's :

- 1) One Practical examination of 30 marks and of four hours duration of each semester will be conducted at the end of the same semester.
- 2) Practical examinations of all semesters will be conducted by internal and External examiners appointed by the University.

Internal Assessment:

- 1) Head of the department will carry out internal assessment of the students on the basis of evaluation report from the concerned teacher/ teachers, under the supervision of the principal of the college and will be done at the end of each semester.
- 2) Distribution of 20 marks of internal assessment is as under –
 - i) Class Attendance 05 marks
 - ii) Home Assignment 05 marks
 - iii) Visit to a Geo. Places 05 marks
 - iv) Group discussion / seminar 05 marks

Rules and Regulation

1. There will be four periods per week for theory papers.
2. The batch of Practical class should not be exceeding 16 students.
3. There will be two periods per batch per week for practical's.
4. The minimum passing marks of Theory paper and internal Assessment is 24 & Passing Marks for Practical are 11.
5. The student has to pass practical separately.
6. Marks will not be allotted to student if he found absent in study tour.

Gondawana University, Gadchiroli

B. A. Geography

Semester- I (Core Subject)

Semester Exam: 50 Marks

Internal Assessment : 20 Marks

Introduction to Geography

Unit - I

The Nature of Geography - Meaning, Definition, Scope, Approach, Objectives, Relevance and Development of Geography; Place of Geography in the Classification of Sciences; Branches of Geography; Geography and other disciplines.

Unit - II

The Physical Dimension in Geography; The Universe; The Solar System; Earth as an Unique Planet; Phases of Moon; The Earth Movement; Shape of the Earth; Latitudes; Longitudes & Time zones and time calculation.

Unit - III

Geography as a study of Environment; Man-Environment; Ecology and Ecosystem; Environmental determinism, Possibilism, Neo-determinism; Dualism in geography- Systematic / Regional, Physical / Human; Complementarity.

Unit – IV

A brief Historical overview of Geography as a discipline; Recent Trends in Geography with special reference to India; Imperatives for the future; Modern Concepts in Geography; Career Opportunities for Geographers.

SEMESTER 1
Practical Geography

Marks: 30

Unit I:

Meaning Definition; Nature & Scope of Cartography. Globe & Maps, Essentials of Maps; History of Map-Making; Types & Uses of Maps.

Unit II:

Scale;

- a) Linear scale
- b) Comparative scale: Time and Distance
- c) Diagonal scale
- d) Conversion of Scale: Statement to R. F. & R. F. to Statement; Simple,

Unit III

Statistical Method

- a) Tabulation, Seriation and frequency distribution
- b) Measurers of central tendency: Mean Median and Mode

Plan of Practical Examination

The Following plan will be strictly followed to test the skill developed by the students.

- | | | |
|----|---|-----------|
| 1) | Introduction to Cartography | (5 Marks) |
| 2) | Scale | (5 Marks) |
| 3) | Statistical method – Tabulation | (5 Marks) |
| 4) | Statistical method – central tendency | (5 Marks) |
| 5) | Viva-vice | (5 Marks) |
| 6) | Practical Records, Attendance and Punctuality | (5 Marks) |

SUGGESTED READINGS:

1. Contemporary American Geography; Routledge New Jersey. 1992.
2. Dikshit R.D. Geographical Thought- A contextual History of Ideas. Prentice Hall of India Pvt. Ltd. 2000.
3. Dohrs. F.E. and Sommers, L.W. (sds.) Introduction to Geography, Thomas Y. Crowell Co. Chicago, 1959
4. Harvey. David: Explanation in Geography Edward-Amold, London, 1972
5. Holt-Jensen, A Geography: Its History and Concepts, Longmans, 1980
6. Husain, Majid: Evolution of Geographical Thought, Rawat Publications, Jaipur, 1984
7. James, P.E.: All Possible Worlds: A History of Geographical Ideas. Sachin Publication, Jaipur
8. Johnston, P.J. and Claval, P. (eds.): Geography Since the Second World War. Croom Helm. London/Bernes and Noble, N.J. 1984.
9. Jones, PA/:Fieldwork in Geography, Longmans, 1968.
10. Lownsburg. J.F. and Aldrich, F.T.: Introduction to Geographical Methods and Techniques, Charles Marrili, Columbus, 1979.
11. Matthews J.A. and Herbert D.T.; Geography: A very short introduction, oxford university press, New Yark, 2009.
12. Minshull, R: The changing Nature of Geography. Hutchinson University Library, London, 1970
13. Wooldridge S.W.: The Geographer As Scientist, Thomas Nelson and Sons Ltd. London. 1956.
14. Dange R.K. : Introduction to Geography , SIR SAHITYA KENDRA, NAGPUR-2015
15. Nagtode P. M. & Lanjewar H.D. : Nakashashtra, Pimplapure Publication Nagpur.

Gondwana University, Gadchiroli

B. A. Geography

Semester-II (Core Subject)

Semester Exam: 50 Marks

Internal Assessment : 20 Marks

Climatology

Unit I

Meaning & Scope and significance of Climatology; Atmospheric composition and structure; Elements of Weather and Climate; Insolation: Determinants & Distribution; Global energy Budget.

Unit II

Temperature: Factors, Distribution and Processes of Heating & Cooling of the Atmosphere. Atmospheric pressure and wind; Vertical and Horizontal Distribution of pressure; Planetary, Periodic and local wind, Monsoon.

Unit III

Atmospheric Moisture, Humidity, Evaporation and Condensation; Precipitation: Forms & Types; Rainfall; Air Masses and Fronts,; Concepts, Classification and Properties.

Unit IV

Atmospheric disturbances; Cyclones: Tropical & Temperate; Anticyclones, Thunderstorms and Tornadoes; Climatic Classification: Koppen & Thornthwaite; Role of climate in human life; Global Warming- General causes, Consequences and Measures of control.

SEMESTER II
Practical Geography

Marks: 30

Unit I

Preparation of climatic maps and diagrams -

- a) Preparation of Isopleths showing temperature, pressure and rainfall. (Each Two Examples)
- b) Construction of Histogram, Hythergraph and Windrose Diagram.

Unit II

Study of Indian daily Weather Maps: Showing summer, Rainy season and winter condition.

Unit III

Surveying – Meaning Survey by chain, Preparation of field book and plotting from the field book. Open and Close traverse.

Unit IV

Study of following weather instruments:

- a) Maximum And minimum thermometer
- b) Barometer
- c) Dry and Wet Bulb Thermometers
- d) Rain Gage and Anemometer

Plan of Practical Examination

The Following plan will be strictly followed to test the skill developed by the students.

- 1) Preparation of climatic maps and diagrams
 - a) Isopleths (4 Marks)
 - b) Diagrams (4 Marks)
- 2) Study of Indian daily Weather Maps (4 Marks)
- 3) Surveying (4 Marks)
- 4) Weather instruments (4 Marks)
- 5) Viva-vice (5 Marks)
- 6) Practical Record, Attendance and Punctuality (5 Marks)

Suggested Readings

1. Barry, R.G. and Carleton, M. (2001): Synoptic and Dynamic Climatology, Routledge, London.
2. Chorley, R.J. (2001): Atmosphere, Weather and Climate. Methuen, London.
3. Critchfield, H.J. (2002): General Climatology. Prentice-Hall of India, New Delhi
4. Finch, J. e. and Trewartha, G. T.: Elements of Weather and Climate. Prentice-Hall, London.
5. Kendrew, W.e. (1998): Climatology. Edward Arnold, London. 5th edition.
6. Lal, D.S.(1986): Climatology. Chaitanya Publications, Allahabad.
7. Oliver, J.E. and Hidore, J.J. (2003): Climatology: An Atmospheric Science, Pearson Education Private Ltd, Pratpaganj, Delhi.
8. Robinson, P. J. and Henderson, S. (1999): Contemporary Climatology, 2nd edition, Pearson Education Ltd., Harlow, UK.
9. Singh, M.B. (1998): Jalvayu Avam Samudra Vigyan. Tara Book Agency, Varanasi.
10. Singh, M.B. (1999): Jalvayu Avam Jal Vigyan. Tara Book Agency, Varanasi,.
11. Singh, S. (2005): Climatology. Prayag Pustak Bhawan, Allahabad.
12. Singh, S. (2006): Jalvayu Vigyan. Prayag Pustak Bhawan, Allahabad.
13. Anthes , R. (1997) Meteorology, Seventh Edition PHI , New Delhi.
14. Dange R.K. : Introduction to Climatology , SIR SAHITYA KENDRA, NAGPUR-2015

THEORY PAPER SEMESTER III (Core Subject)
GEOMORPHOLOGY

UNIT -1

Definition, Nature and Scope of Geomorphology, Place of Geomorphology in physical Geography', Interior of Earth, Earth movements.

UNIT -2

Continental Drift Theory by Wagner, Plate Tectonics, Isostasy, Earthquakes and Volcanoes .

UNIT -3

Weathering Process, Types of weathering and related landforms, Rocks : Origin and composition of rocks ;Types of Rocks.

UNIT -4

Work of River: Erosion, Transportation and Deposition and associated landforms. Types of streams and drainage pattern, Concept of cycle of erosion, interruption of cycle of erosion / Rejuvenation and associated features.

PRACTICAL
SEMESTER-III

1. Preparation of relief maps and diagrams

- (a) Drawing of various topographical features by using contours.
- (b) Study of at least five contour maps representing different relief features with the help of profiles.

2. Study of Indian Topographical maps

Plains, Plateau and Mountain region.

3. Plane Table survey -Radiation and intersection methods

(At least four plans)

4. Viva -Vice practical record

PLAN OF PRACTICAL EXAMINATIONS

The following-e plan is strictly followed to test the skill develop by the students

UNITS	QUESTIONS	MARKS
1. Relief Maps	a) Drawing of topographical feature by using contours	4
	b) identification of features on contour maps & drawing of profile	6
2. Topographical Maps	interpretation of topographical maps	8
3. Plane Table	Plane Table survey and preparation of map	7
4. Record	Viva Voice on practical record	5

THEORY PAPER SEMESTER – IV (Core Subject)

Geomorphology and Oceanography

UNIT -1

Glaciers -their type -work of erosion and deposition - landforms associated with the work of valley glaciers. Work of wind in arid regions -landforms developed due to erosional and depositional work of wind.

UNIT -2

The work of underground water, karst topography .

Work of sea waves in coastal regions -landforms developed due to erosional and depositional work of sea

UNIT -3

Definition of oceanography .Surface configuration of ocean floor, continental shelf, continental slope, abyssal plain, mid -oceanic and oceanic ridges and trenchers

Distribution of temperature and salinity of oceans and seas .

UNIT-4

Circulation of oceanic waters :Waves, tides and currents ; Al Nino, LA Nina
Coral Reefs, Oceans as storehouse of resources for the future'

PRACTICAL SEMESTER-IV

1. Construction, Merits, Demerits, characteristics and uses -

A)

1. Zenithal stereographic projection - The Polar case
2. Zenithal Gnomonic projection - The Polar case
3. Simple conical with one standard parallel
4. Simple conical with two standard parallel

B)

1. Bonne's conical projection.
2. Simple cylindrical projection
3. Cylindrical equal area projection.

2. Statistical methods -Measuring of dispersions –

- a. Mean deviation
- b. Quartile Deviation.
- c. Standard Deviation.

3. Viva Vice on practical record

PLAN OF PRACTICAL EXAMINATIONS FOR SEMESTER - IV

UNITS	QUESTION	MARKS
1. Projections	A) Construction of Projection, Merits, demerits & Uses	7
	B) Construction of Projection, Merits, demerits & Uses	8
2. Statistical methods	Two problems on any two methods	10
3. Viva Voice	Viva Voice on practical record	5

Sr. No	Books Author	Books Name	Publication
1	Worcester P.G	A Text book of Geomorphology	Affiliated East West Press, New Delhi,1981
2	Monkhouse	Principals of Geography	University of London press,'1980
3	Strahler A.N.	Physical Geography	John Wiley & Sons
4	Rinch,V.C. & G.T. Trowartha	Physical Elementary of Geography	Mc-Grae Hill Book Co., 1971
5	A6nikouchine,W.A.& Sternberg ,R.W.	The World Oceans -An Introduction to Oceanography	Englewood Cleffs N.J. 1973
6	Grols, S.	General Oceanography-An Introduction	John Wliley & Sons New York, 1 980
7	Singh R.L.	Elements of Practical Geography	Students, Friends, Allahabad
8	Ishtiw, M.	A text Book of Practical Geography	Heritage Publishers ,New Delhi, 1 989
9	Bygott,Jonh (Revised by D.C. Money)	An Introduction to Mapwork and PracticalGeography	University Tutorial Press
10	Brich, R.W. -Maps	Topographical and Statistics	Oxford University Press 1989 edition
11	Tamaskar, B.G. & Dr.V.M. Deshmukh	Geographical interpretation of Indian Topographical Maps	
12	MkW- Tk;dqekj exj	Hkq#i”kkL=kph eqyRos	vWdsMsehd baVjizkbtSl vkSjaxkckn
13	Izkk- Iq-iz- nkrs- IKS- lathouh nkrs- izk- MksbZQksMs	Izkkd` frd Hkw foKku	vfu#/n iCyh”khax gkÅI iq.ks-
14	MkW- ih-,e- ukxrksMs] izk- ts,- “ks[k] izk- ok;- ok;- nq/kipkjs	Hkq#i”kkL= o Ixj foKku	fo k izdk”ku] ukxiwj
15	MkW- vtZqu dqaHkkj	izkR;f{kd Hkqxksy	

16	MkW- exj] MkW- txrki	izkR;f{kd Hkqxksy Hkkx & 1]2]3	
17	Dr. P. M. Nagtode Dr. H. D. Lanjewar	Nakashashtra	Pimplapure Pub. Nagpur.

RECOMMENDED BOOKS

THEORY PAPER SEMESTER V
Geography of Maharashtra (Elective Paper I)

- Unit I – Maharashtra – Location, Physiographic Division, Administrative Division, Drainage Pattern in Maharashtra.
- Unit II – Climate – Rainfall Distribution – characteristics, climatic Regions, forest – types and distribution, economic importance.
- Unit III – Agriculture in Maharashtra – major crops, (Rice, Wheat, Sugercane, Cotton). Minerals and power resources (Iron – ore, Manganese and coal)
Industries – Agro based – cotton textile and sugar.
- Unit IV – Spatial distribution of population and density – affecting factors, rural – urban migration – causes and effects.

THEORY PAPER SEMESTER V
BIO GEOGRAPHY (Elective Paper II)

UNIT – I - Nature and scope of Bio Geography – Biosphere and its characteristics, meaning and functions of Soil formation and soil characteristics, Soil profile, soil fertility and productivity. Classification of Soil.

UNIT –II - Plants – Their evolution, grouping and importance. Environmental factors influencing plants and their distribution. Major vegetation types – Forest, grassland and desert vegetation and their economic importance.

UNIT –III - Animals – Environmental factors influencing their distribution, The Zoo-geographical realms and types of animal Ecology – ecosystem and ecological Balance with reference to plants and animals.

UNIT – IV – Man – Environment relationship -

Meaning and characteristic features of environment, use of environment by man.

Concept of determinism and possibilism – Ecological adaptation.

Global warming and its consequences. Environmental degradation. Concept of conservation - with reference to soil, plants and animals.

Reference –

- 1) Biogeography – H. Robinson
- 2) Biogeography, Natural and Cultural – Strahler
- 3) Biogeography – A Study of Plants in the Ecospher – Tivy, Joy
- 4) One earth one failure – East West Press New Delhi
- 5) Environmental Pollution – N. Manivasakun.
- 6) Fundamentals of Biogeography – Huggett R. J.
- 7) Essential of Biogeography – H. S. Mathur
- 8) Man and Environment in India through ages – D. P. Agrawal.

THEORY PAPER SEMESTER V
GEOGRAPHY OF TOURISM (Elective Paper III)

UNIT – I - Nature and scope of Geography of Tourism, Importance of Tourism, Geography and Tourism. Factors of Tourism, Development – Physical, Socio-cultural and Economic.

UNIT –II - Classification of Tourism, Nature of Tourism, Marketing in Tourism, Characteristics of Tourism Marketing, Functions of Tourism Marketing. Infrastructure and support services – Transportation, Tourism organization, Agencies and guide, Accommodation etc.

UNIT –III - Impact of Tourism – Tourism and Economic Development, Tourism and Social Changes, Tourism and Environment. Planning of Tourism – Process of Planning, Types of Tourism Planning, Problems of Tourism Planning.

UNIT – IV – Tourism Development in India, role of Tourism in National Economy, Geographical and Historical Tourism in Maharashtra, Religious and Cultural Tourism in Maharashtra.

Reference –

- 1) The Geography of Tourism – R. Robinson
- 2) International Tourism – A. K. Bhatiya
- 3) Tourism Development and resource Conservation – Dr. Jagmohan Negi
- 4) Tourism Development – A. K. Bhatiya
- 5) Tourism in India – U. N. Gupta
- 6) Tourist Development – Douglas Pearce, Logman, London.
- 7) Tourism Economic and Social Development _ P. S. Gill
- 8) Development Tourism and Travel Industries – Premnath Dhar
- 9) Geography o Tourism – S. B. Shinde
- 10) Geography of Tourism – Nagtode and Pardhi

PRACTICAL

SEMESTER-V

Unit –I : Enlargement & Reduction by Graphical Methods (Atleast two of each methods.)

Unit – II : Basic principles of land surveying

Prismatic compass survey

- a) Correction of bearing
- b) Open and close traverse (Atleast two of each methods)
- c) Closing of error (By Browditch Methods – graphical)

Unit – III : Types Cartographic symbol and their uses

- a) Use of line and Bar graph for representing population, agriculture, Industry and transport data. (Simple, Compound and Multiple)
- b) Divided rectangle & circles.

Unit – IV :

Population pyramids.(Simple, superimposed & compound)

Unit – V :

Preparation of Maps

Representation of population & economics data

Choropleth maps & dot methods.

Unit – VI :

Viva- Voce & Practical.

Plan of Practical Examination:

Unit I :	Enlargement and Reduction	5 marks
Unit II :	A Prismatic Compass survey	
	a. Calculation of Reduced level	4 marks
	b. Drawing of Profile	4 marks
Unit III :	Preparation of Maps and Diagram	
	a. Line or Bar graph	
	Divided rectangle or circle	4 marks
Unit IV :	Population Pyramids	4 marks
Unit V :	Preparation of Maps	4 marks
Unit VI :	Viva-voice	3 marks
	Practical record	2 marks

Total 30 marks

THEORY PAPER SEMESTER VI

India – A Geographical Analysis (Elective Paper I)

Unit I – Location and extent – The physiographic Division, Rivers – major Division of Indian Rivers.

Unit II – India Climate - characteristics of Indian climate, monsoon, Rainfall Distribution, climatic Regions.

Unit III – Mineral (Iron-ore, Manganese) and power resources (Coal, petroleum, hydro-electricity) their distribution.

Unit IV – Spatial distribution of population and density, population problems in India, Nature of Urbanization, problems of Urbanization in India.

Agriculture – Importance of Agriculture in Indian Economy, characteristics, problems of Indian Agriculture.

THEORY PAPER SEMESTER VI
CULTURAL GEOGRAPHY (Elective Paper II)

UNIT – I - Meaning and definition of culture and cultural Geography. Major branches of cultural Geography

(a) Economic Geography (b) Settlement Geography (c) Population Geography
Settlement Geography – Beginning of Settlements. Temporary and Permanent-Farmstead, hamlet, village, town and city.

Types of Human Settlement. Rural and Urban Settlement Types.

UNIT –II - Population Geography – Population Structure (a) Age and Sex (b) Literate and Illiterate (c) Rural and Urban. Growth of Population, - Theory of Malthus. Optimum population, population Distribution in the world factors affecting the distribution and density of population migration of population.

UNIT –III - Definition, meaning and Scope of economic Geography Classification of occupation – Primary, Secondary, Tertiary and Quaternary with their characteristics. Primary occupation – Fishing, Lumbering, Mining and Agriculture Study of the Characteristics of Monsoon, Meditterian, Plantation and Mix Farming Types.

UNIT – IV – Secondary Occupation – Manufacturing – Location factors. Study of Iron and Steel, Textile and Sugar Industries. Transportation – Role of transportation in the development of economic activities. Factors affecting the distribution and density of transportation routes.

THEORY PAPER SEMESTER VI
GEOGRAPHY OF HEALTH (Elective Paper III)

UNIT – I - Introduction to Human Health and Geography – Meaning and Definition in Geography of Health – Objectives – Nature, Scope of Geography of Health – Significance of Geography of Health – Approaches of Study of Geography of Health, Factors Influencing on Human Health.

UNIT –II - Nutrition and Food: Meaning of Nutrition and Food – Nutrition Elements of Food – Purpose of Balance Diet – Significance of Nutrition in Food; Epidemiology of Communicable Disease; Meaning – Classification – Types Causes and Distribution – Prevention and Eradication Programmes in India.

UNIT –III - Epidemiology of Non-Communicable disease: Meaning – classification of disease (Congenital and Acquired Disease), Malnutrition: Types of Malnutrition – Classification of Malnutrition – Causes and Symptoms of Malnutrition – Effect of, Malnutrition, Distribution of malnutrition – Prevention and Eradication Programare in India.

UNIT – IV – Health care System; Meaning of Health care, different types of Health care system; Health care Planning & Management; Meaning and Objectives of Health care Planning, Health Education, and National Health Policy in India. Health Management, Health Organization. (WHO)

**PRACTICAL
SEMESTER-VI**

Unit – I :

Introduction to modern techniques (on theoretical base): Remote sensing as a tool for data generation and mapping. GIS and Computer.

Unit – II :

Leveling – use of Dumpy level in the field problem on leveling:-

- a) Preparation of field Book (Collimation and Rise & Fall Methods)
- b) Drawing of Profile.

Unit – III :

Meaning and Computation of correlation coefficient by Pearson’s and Spearman’s method (Atleast two exercise of each)

Unit - IV: Field work and Field Report

A Short field study – a socio-economic survey of a small village.

Unit – V :

Viva-voce & Practical Record.

Plan of Marks of Practical Examination:

Unit I : Introduction to Modern Techniques (Any Two) three marks each 6marks
 a) Computer b) Remote Sensing c) GIS

Unit II : Problem of leveling. 4 marks
 c. Calculation of Reduced level 4 marks
 d. Drawing of Profile

Unit III : Computation of correlation 6 marks

Unit IV : Socio Economics Survey report 5 marks

Unit VI : Viva-voice 3 marks
 Practical record 2 marks

Total 30 marks

IanHkZlwph

1. Regional Geography of Maharashtra – B. Arunachalam.
2. Geography of Maharashtra – C.D. Deshpande N.B. T.
3. Maharashtra 1991 – Directorate General of information Govt. of Maharashtra.
4. Impact of irrigation A regional Perspective. C.T. Pawar. Himalya Publishing House, Delhi-1989.
5. Hand book of Agriculture ICOAR New Delhi.
6. The Deccan Geography- Secunderbad Vol. X (2) 1972.
7. Bombay Geographical Magazine- Vol. XVIII (1) (19971)
8. egkjk'V^a ftYgs & egkjk'V^a "kklu & paknk] vejkorh] ukxiwj] ijHk.kh] ;orekG-
- 9- egkjk'V^akpk Hkwksy & lonh & fujkyh izdk"ku 1997-
- 10- egkjk'V^akpk Hkwksy&[krhc] esgrk iCyh"khax gkAI 1997-
- 11- egkjk'V^a & nkLrkus 1996&97-
- 12- vfgjjko MkW- Mh- ok;- & Hkkjrkpk Hkwksy-
- 13- dqaHkkjs MkW- , - vkj- & Hkkjrkpk Hkwksy
- 14- ?kkjiwjs MkW- foB~By & Hkkjrkpk Hkwksy
- 15- ?kksyi MkW- Vh- ,u- Hkkjrkpk izkd`frd Hkwksy
- 16- nslkbZ MkW-] Hkkysjko MkW-& Hkkjrh; vFkZO;oLFkk
- 17- iqjkd.kd izk- ek/ko & Hkkjrkpk Hkwksy
- 18- exj MkW- t;dqekj & Hkkjrkpk Hkwksy
- 19- lkoar] vkBoys] eqlekMs & yksdla[;k Hkwksy
- 20- Agrawal A. M. – India's Agriculture Problems
21. Agrawal A.M. – India's Population Problems
22. Census of India – 1991 and 2001, Edition
23. Das P.K. – The Monsoon
24. Dubey and Negi – Economic Geography of India
25. Lal D.S. – Climatology
26. Mishra R.P. – Water Transport in India.
27. Musmade Manjusha – Population of India – Think-Line-May
28. Rao M.A. – Indian Railways
29. Ruddar Dutta, Sundharam – Indian Economy
30. Singh Gopal – Geography of India.
31. Singh S.M. – My India.
32. Wadia and Meher – Mine of India.
33. Wadia D.M. – Geology of India.

34.Nagtode P. M. & Lanjewar H.D. : Nakashashtra, Pimplapure Publication Nagpur.

