Jo,

The Dean, faculty of Social Leiences, Jae Prakash une versety, Chopra.

Sub; - regarding the meeting of the Board of rourses.
Studies for necessary changes in the CBCS
Syllabors of M. A. Geography.

Sex,

With due reference to above mentioned

Subject the meeting of the Board of Nourse Andrew
for necessary changes in the CBES Syllabus of.

Hith Geography was held today on 18,01,2021 at

11:30 am. and its was unanimously decided to

add Tour REPORT in MA. (Semi)-IV, GEO-M-402,

Elective Nourse - 02,

Thanking your, Ser, yours faithfully

(i) Dr. BIRENDRA KUHAR- Boomand.

18.11.21

18.01.21.

(ii) Dr. Sughil Pd. Seugh. Somand.

18.11.2021

18.11.2021

(iv) Dr. C.V. Purt. Chapte.

(iv) Dr. Saugay Kuwar Lymong. 12.11.2021

(iv) Dr. Saugay Kuwar Lymong. The Controlly. Chapte.

JAI PRAKASH UNIVERSITY CHAPRA.

2 Year (Four Semester) Post Graduate Programme

Syllabus for M.A. Geography (Faculty of Social Science) Under Choice Based credit System (CBCS)

(To be effective from 2018-19)

See 18. 1.21 Sangh 181.2021 Tarket 18.01.21 Reol.21 18.01.21

SEMESTER - I: MA GEOGRAPHY

COURSE	COURSE	COURSE NAME	CREDITS
C-1	GEO- M-	Geomorphology	05
Core Course) CC - 2 Core Course)	101 GEO- M- 102	Climatology and Oceanography	. 05
CC -3 (Core Course)	GEO- M-	History of Geographical Thought	05
CC - 4 (Core Course)	GEO- M-	Representation and Analysis of Statistical Data (Practical)	0.5
AECC - 1 · (Ability	and the second s	Environmental Sustainability Swachcha Bharat Abhiyan Activities	03
Enhancement Compulsory Course)			

SEMESTER - II: MA GEOGRAPHY

COURSE	COURSE	COURSE NAME	CREDITS
CC -5 (Core Course)	GEO- M- 201	Regional Planning and Rural Development	05
CC - 6 (Core Course)	GEO- M- 202	Environment and Disaster Management	05
CC - 7 (Core Course)	GEO- M- 203	Resource and Economic Geography	05
CC - 8 (Core Course)	GEO- M- 204	Geography of India	05
CC -9 (Core Course)	GEO- M- 205	Cartographic Techniques (Practical)	0.5
AEC - 1 (Ability Enhancement Course)		Ability Enhancement Course	05
en suurianimmas anno linnossa annomen suurianimmas aanoonimmassa suurianimmassa suurianimmassa suurianimmassa s			

8200-8. 18,01,21

18.01.21. 18.1.202 18.1.

Bill 12/6/18

SEMESTER-III: MA GEOGRAPHY

			CREDITS
COURSE		COURSE NAME	200
OPTED	CODE	Quantitative Techniques and Research	05
CC-10	GEO- M-	Methodology	and the second s
(Core Course)	301 GEO- M-	Remote Sensing and Geographical	05
CC - 11	302	Information System	1)5
(Core Course)	GEO- M-	Human and Social Geography	***
CC - 12 (Core Course)	303	Coography	
CC-13	GEO- M-	Land Use and Agriculture Geography	
(Core Course)	304	Instrumental Surveying, GIS and GPS	05
CC-14	GEO- M-		
(Core Course)	305	Human Values and Professional Ethics	03
AECC - 2 (Ability		Gender Sensitization	02
Enhancement			
Compulsory			
Course)			Para Para Para Para Para Para Para Para

SEMESTER - IV: MA GEOGRAPHY

	COURSE	COURSE NAME	CREDITS
OPTED C	GEO- M-	A. Urban Geography/ B. Political Geography/ C. Population Geography/ D. Geology of India/ E. Settlement Geography/	05
	GEO- M- 402	F. Advance Cartography Dissertation/ Project Work Based on Socio Economic Survey	05
Course) DSE - 1 (Discipline Specific Elective) OR GE - 1 (Generic Elective)		Regional Planning and Rural Development (201 –CC) Or Geography of Bihar	05

18.1.21 18.1.7021 J. Add Billie Billies

Culind 18.01.21 that 2018 Billies

M. A. GEOGRAPHY (SEMESTER - I)

Code -GEO - M 101 (Core Course- 01) Geomorphology (5 Credits)

Time: 3 Hours (ESE)

Full Marks: 100 ESE: 70 Marks

CIA: 30 Marks

The questions for End Semester Examination Comprises of three parts as mentioned below

Part - A

Ten objective type Questions - All questions to be answered (Questions shall be selected from the whole syllabus preferably two questions from each unit) $10 \times 2 = 20 \text{ marks}$

Part-B

Five short Answer Questions - Four questions to be answered (Questions shall be selected from the whole syllabus preferably one question from each unit) $4 \times 5 = 20 \text{ marks}$

Part - C

Five long answer Questions -Three questions to be answered. (Questions shall be selected from the whole syllabus preferably one question from each unit) $3 \times 10 = 30 \text{ marks}$

Unit I Theories regarding evolution of Earth's Crust

Isostasy- Concept, Theories and its Application Continental Drift Theory and Plate Tectonics

Theory of Sea Floor Spreading

Unit II Morphogenic Evolution Models of Davis, Penck and King

Models of Slope Formation Channel Morphology

Rejuvenation and Multiple Cycle of Erosion

Unit III Classification and Evolution of Arid Landforms

> Glacial Landforms Periglacial landforms Karst landforms

Unit IV Geomorphic Evolution of:

Chotanagpur Highlands

Peninsular India Shillong plateau Kashmir Himalayas

Unit V Meaning and Scope of Applied Geomorphology

> Application of Geomorphology in engineering projects and oil exploration Morphometric Analysis of Drainage basin - Stream Order, Sinuosity Index and

Drainage Density

CIA 30 Marks

Selected Readings:

- 1. William, D. Thornbury Principles of Geomorphology
- 2. Savindra Singh Geomorphology
- 3. Enavat Ahmed Geomorphology
- 4. P. Dayal- Geomorphology
- 5. V. K. Sharma Geomorphology Earth Surfaces
- 6. Wooldrige and Morgan An Outline of Geomorphology
- 7. R. N. Tikka Physical Geography
- 8. P. K. Sen and N. Prasad An Introduction to the Geomorphology of India
- 9. D. S. Lal Physical Geography
- 10. Cotton Geomorphology.
- 11. Sparks, B.W., Geomorphology.
- 12. Steers, J.A., Unstable Earth.
- 13. Strahler, A.H. & Strahler, A.H., Elements of Physical Geography.
- 14. Von Engeln., Geomorphology.
- 15. Daly: Our Mobile Earth

Code - GEO - M 102 (Core Course-02) Climatology and Oceanography (5 Credits)

Time: 3 Hours (ESE)

Full Marks: 100 ESE: 70 Marks CIA: 30 Marks

The questions for End Semester Examination Comprises of three parts as mentioned below

Part - A

Ten objective type Questions - All questions to be answered (Questions shall be selected from the whole syllabus preferably two questions from each unit) $10 \times 2 = 20 \text{ marks}$

Part-B

Five short Answer Questions – Four questions to be answered (Questions shall be selected from the whole syllabus preferably one question from each unit) $4 \times 5 = 20$ marks

Part - C

Five long answer Questions -Three questions to be answered. (Questions shall be selected from the whole syllabus preferably one question from each unit) $3 \times 10 = 30 \text{ marks}$

Unit I Climatology and its Relation with other Sciences
Composition and Thermal Structure of Atmosphere
Heat Budget and Heat Balance

Unit II Airmasses: Characteristics, Classification and Distribution
Fronts, Types of Fronts and associated Weather Conditions
Techniques of Weather Forecasting
Cyclones and Anticyclones

8:1.21 SPS.mah.
18:1.21 18:1.2021 All Sale Sale 16/16

Unit III Theories of climatic change

Global Warming: Causes and Consequences

El-Nino and La-Nina phenomena in Indian context

Unit IV Oceanography: Relief Features of Ocean Floor

Bottom Relief of Indian and Atlantic Ocean

Submarine Canyons

Unit V Theories of Origin of Tides

Types of Coral Reef and theories of Coral Reef formation

Ocean Deposits

CIA 30 Marks

Selected Readings:

- 1. Savindra Singh Climatology
- 2. D. S. Lal Climotology
- 3. A. Miller Climatology
- 4. E. Aguado E. and J. E. Bent: Understanding Weather and Climate
- 5. Alka Gautam Jalvayu Abum Samudra Vigyan
- 6. Sharma & Vatal Oceanography for Geographers
- 7. Blair, T.A., Climatology-General and Regional.
- 8. Chorley, R.J. & Barry, R.G., Atmospheric Weather and climate.
- 9. Donn, W.L., Meteorology,
- 10. Kendrew, W.G., Climates of the Continents.
- 11. Mather, J.R., Climatology: Fundamental and Applications, 1974.
- 12. Rama Sastry, A.A., Weather & Weather forecasting.
- 13. Rummey, G., Climatology and the world's climate.
- 14. Stringer., Foundation of Climatology.
- 15. Stringer., Techniques in Climatology
- 16. Trewartha, G.T., An Introduction to Climate.
- Davis, R.J.A. 1986. Oceanography An Introduction of the Marine Environment, Win C. Brown, Iowa.
- 18. Murray, S.J., 1913, Ocean. A General account of the Science of the sea, Thorton Butter Worth, London.
- 19. Siddhartha, K. 1999, Oceanography, A Brief Introduction, Kisalaya Pub. Pvt. Ltd., New Delhi..
- Stahler, A. N. Stahler A.M., 1997, Geography and man's Environment, John Wiley and Sons. New York.
- 21. Thurnman, H.V., 1978, Introduction to oceanography, Charles E. Merrill Pub. Co., London.
- 22. Weyl, P.K. 1970, Oceanography an Introduction of the Marine Environment, John Wiley and Sons Ltd., London

Bee - 8, 18,1,21

18 150 1 12 b

1 Horas

18-01-21

c

Code - GEO - M 103 (Core Course-03) History of Geographical Thought (5 Credits)

Time: 3 Hours (ESE)

Full Marks: 100

ESE: 70 Marks

CIA: 30 Marks

The questions for End Semester Examination Comprises of three parts as mentioned below

Part - A

Ten objective type Questions - All questions to be answered (Questions shall be selected from the whole syllabus preferably two questions from each unit) $10 \times 2 = 20 \text{ marks}$

Part-B

Five short Answer Questions – Four questions to be answered (Questions shall be selected from the whole syllabus preferably one question from each unit) $4 \times 5 = 20 \text{ marks}$

Part - C

Five long answer Questions -Three questions to be answered. (Questions shall be selected from the whole syllabus preferably one question from each unit) $3 \times 10 = 30 \text{ marks}$

Unit – I Place of Geography in Sciences and Social Sciences

Contribution by Greek and Roman Scholars with special reference to Eratosthenes,

Herodotus, Aristotle, Plato, Strabo, Ptolemy

Contribution by Arab scholars

Development of Geographical ideas in Ancient India

Unit II Development of Geography during 19th century

Concept of Space- Absolute, Relative and Abstract, and Post Modern Space Development of Modern Indian Geography: Prospects, Problems and Future

Unit III Positivism and Pragmatism in Human Geography

Paradigms in Geography

Quantitative Geography: Revolution, Merits and Demerits.

Models - Definition and Types

Unit IV Applied Geography

Behavioural Geography

Radical Geography

· Humanistic Geography

Unit V Structuralism

·Functionalism

Feminism

Post-Modernism

B 18/1/21

18.1.2021 12.6.18

Seks (6) 18.

CIA

Selected Readings:

- 1. Johnston R. and Sidaway J. (1997) Geography and Geographers
- 2. Richard Pee (1998) Modern Geographical Thought
- 3. Milton E. Harvey & Brian P. Holly (ed.) (1989): Themes in Geographical Thought
- 4. D. Harvey (1969) Explanation in Geography
- 5. R. Doi (2009) Geographical Thought
- 6. M. Hussain (2004 rep) Evolution of Geographical Thought
- 7. S. Adhikari (2009 5th Ed.) Fundamentals of Geographical Thought
- 8. R. D. Dikshit (2002): Geographical Thought: A Conceptual History of Ideas
- 9. JagdishSingh (2000) Bhaugolik Chintan Ka Mool Adhar (Hindi)
- 10. Kaushik (2009) Bhaugolik Chintan avam Bidhitantra (Hindi)
- 11. V. K. Srivastava (2002) Bhaugolik Chintan Ka Adhar (Hindi)
- 12. Bansal (2008) BhaugolikChintan (Hindi)
- 13. LalitRaina (2008) Geographical Thought (English)
- 14. Ali, S.M., Arab Geography, AMU., Press, Aligarh.
- 15. Anuchin, V., Directions in Geography.
- 16. Claval, P., Epistomology and History of Geographical Thought, in progress in Human Geography, Vol.4.
- 17. Dickinson, R.E., The Making of Modern Geography.
- 18. Davis, V.K., Conceptual Revolution in Geography.
- 19. Freeman, T.A., A Hundred Years of Geography: Introduction to Behavioral Geography.
- 20. Hartshorne, R., Perspectives on Nature of Geography, Rand MacNally, 1959.
- 21. Johnston, R.J., The Future of Geography, Methuen, London, 1988.

Code - GEO - M 104 (Practical) (Core Course-04) Representation and Analysis of Statistical Data (5 Credits)

Time: 3 Hours (ESE)

Full Marks: 100 ESE: 70 Marks CIA: 30 Marks

In the End Semester Examination questions will be set preferably from each unit out of which candidates are required to answer any three questions.

Each Question will carry 20 marks. (20×3=60 marks)

Practical record and viva voce will comprise 10 marks

Unit I Population Data - Dot Map, Proportionate Circle, Spherical Diagram

Climatic Data - Wind Rose, Foster's Climograph Unit H

Interpretation of Weather maps

Economic Data - Band Graph, Ergograph Unit III

· Density of Population - Choropleth and Isopleth Method

ever or Combined - 1011-

Selected Readings:

- 1. Monkhouse and Wilkinson Maps and Diagrams
- 2. Mahmood, Aslam, "Statistical Methods for Geographical Studies"
- 3. Campbell, J., Introductory Cartography, Prentice Hall, Inc., Englewood Cliff, New Jersey, 1984.
- 4. Cuff, D.J., & Mattson, M.T., Thematic Maps, their Design and Production, Mathuen, New York., 1982.
- 5. Robinson, A.H. & others., Elements of Cartography, John Willey and Sons, New York (New edition).
- 6. Archer, J.E., & Dalton, T.H., Fieldwork in Geography, London.
- 7. National Atlas and Thematic Maps Organization (NATMO): National Atlas of India, Calcutta.
- 8. Monkhouse, F.J., Maps and Diagrams, Methuen & Co., London, 1967.
- 9. डा० जे० पी० शर्मा-प्रयोगात्मक भूगोल की रूपरेखा
- 10. डा० चतुर्भुज मामोरिया एंव ओदामलजैन-मानचित्रांकन एंवप्रायोगिक भूगोल
- 11. डा० एम० एम० पी० सिन्हा एंव डा० सीमाबाला-उच्चकारींग्राफी
- Sarkar, A. 2015. Practical Geography: A Systematic Approach, 3rd ed. Orient Blackswan Private Ltd.

13. Singh, R.L., Singh, R.P.B. 2008. Elements of Practical Geography, Kalyani Publishers.

18.1.21

12.01.2

18.01

12. 1/2 18 (2.618

Ull com

M. A. GEOGRAPHY (SEMESTER - II)

Code - GEO - M 201 (Core Course-05) Regional Planning and Rural Development (5 Credits)

Time: 3 Hours (ESE)

Full Marks: 100

ESE: 70 Marks

CIA: 30 Marks

The questions for End Semester Examination Comprises of three parts as mentioned below

Part - A

Ten objective type Questions - All questions to be answered (Questions shall be selected from the whole syllabus preferably two questions from each unit) $10 \times 2 = 20 \text{ marks}$

Part-B

Five short Answer Questions – Four questions to be answered (Questions shall be selected from the whole syllabus preferably one question from each unit) $4 \times 5 = 20 \text{ marks}$

Part - C

Five long answer Questions -Three questions to be answered. (Questions shall be selected from the whole syllabus preferably one question from each unit) $3 \times 10 = 30 \text{ marks}$

Unit I Regional Planning: Concept, Merits and Limitation

Planning Process - Sectoral, Temporal and Spatial Dimensions

Concept of Planning Region and Methods for Delineation of Regions

Unit II Special Purpose Planning Regions in India:

River Valley Regions Metropolitan Region

Problem Regions - Hilly Regions, Tribal Regions

Unit III Indicators of Development

Regional disparities in India

Need for Regional Planning in India

Regional Development in India - Problems and Prospects.

Unit IV Concept of Multi Level Planning

Role of Panchayati Raj Institutions in Rural Development

Defining Development and Rural Development; Gandhian approach to rural

development

Unit V Area Based Approach to Rural Development: Drought Prone Area Programme:

PMGSY

Target Group Approach: SJSY, MGNREGA, Jan Dhan Yojana and PURA

Provision of Services- Physical and Socio-Economic Access to Elementary Education.

and Primary Health Care and Micro Credit

18,1,21

Spang h 181202

2. Ad 6.18 Reks 1 12/6/19

Selected Readings

- 1.Bhatt, L.S., 1973, Regional Planning in India. Statistical Publishing Society, Calcutta.
- 2. Chandana, R.C., 2000, Regional Planning, Kalyani Publishers Ludhiana.
- 3. Chand, M., Puri, & V.K., 1983, Regional Planning in India, Allied Publishers, New Delhi,
- 4. Friedman., J., & Alonso, W, 1967 Regional Development and Planning-A Reader. MIT Press, Cambridge Hars.
- 5. Glasson, 1980, Regional Planning, Hutchinson, London.
- Glikson, A., 1955, Regional and Development, Netherlands, Universities Foundation of International Corp, London.
- Mishra, R.P., 1969, Regional Planning Concepts, Techniques and Policies, University of Mysore, Mysore.
- 8. Mishra R.P. et.al., 1974, Regional Development and Planning in India, Institute of Development Studies, Mysore.
- 9. Rao, V.L.B., 1960. Regional Planning. Asia Publishing House. New Delhi.
- 10.Kant Surya et.al (eds).: Reinventing Regional Development, Rawat Publication, Jaipur and N.Delhi.
- 11.श्रीवास्तव शर्मा एवं चौहान-प्रादेशिक नियोजन एवं संतुलित विकास
- 12. Singh, K., Rural Development, SAGE

Code - GEO - M 202 (Core Course-06)

Environment and Disaster Management (5 Credits)

Time: 3 Hours (ESE)

Full Marks: 100 ESE: 70 Marks CIA: 30 Marks

The questions for End Semester Examination Comprises of three parts as mentioned below

Part - A

Ten objective type Questions - All questions to be answered (Questions shall be selected from the whole syllabus preferably two questions from each unit) $10 \times 2 = 20 \text{ marks}$

Part-B

Five short Answer Questions – Four questions to be answered (Questions shall be selected from the whole syllabus preferably one question from each unit) $4 \times 5 = 20 \text{ marks}$

Part - C

Five long answer Questions -Three questions to be answered. (Questions shall be selected from the whole syllabus preferably one question from each unit) $3 \times 10 = 30 \text{ marks}$

Unit I

Meaning and Scope of Environmental Geography, Environmentalism Ecology and Dynamics of Ecosystem Types of Ecosystem – Marine and Terrestrial

Unit II Environmental Degradation: Causes and Effects

Pollution – Air Pollution

Water Pollution Soil Pollution

Unit III Global Warming – Causes and effects

Sea – level changes Ozone depletion Climatic changes

Unit IV Environmental Hazards and Disasters: Flood and Droughts in India:

International Environmental Treaties: The Stockholm Conference, Earth Summit,

Kyoto Conference

National Action Plan on Climate Change in India

Unit V Disaster – Man-made disasters, their types – Technological and Industrial Disasters.

Man-made disasters – Examples from India

Mapping the Disasters

CIA 30 Marks

Selected Readings:

- 1. Gaur, S., and Chandrashekhar, T., 2006, Global Environmental Crisis, Book Enclave, Jaipur.
- 2. Chandna, R.C., 1998, Environmental Awareness, Kalyani Publishers, New Delhi,
- 3. Gupta, P.D., 2003, Environmental Issues for the 21st Century, Mittal Publications, New Delhi.
- 4. Morris, D., Freeland, J., Hinchliff, S., Smith, S. (ed.), 2003, Changing Environments, Pd. John Wiley and Sons Ltd., The Open University, U.K.
- 5. Park, C.C., 1980, Ecology and Environmental Management, Butterworths, London,
- 6. Radha, S., and Sankhyan, A.S., (ed.), 2004. Environmental Challenges of the 21st Century, Deep Publications, New Delhi.
- Rasure, K.A., 2007, Environment and Sustainable Development, Serials Publications, New Delhi.
- 8. Saxena, H.M., 2006, Environmental Studies, Rawat Publications, Jaipur.
- 9. Singh, S., 1991, Environmental Geography, Prayag Publication, Allahabad.
- Strahler, A.N., and Strahler, A.M., 1997, Geography and Man's Environment, John Wiley and Sons, New York.
- 11. Taj. B., Murphy, P. and Rana, P.S., 2007, Environmental Impact Assessment, An Indo Australian Perspective, Bookwell New Delhi.
- 12. Verma, S. B. and Shiva, K.S., (ed.). 2005, Environmental Protection and Development, Deep Publications, New Delhi.
- Government of India. (1997) Vulnerability Atlas of India. New Delhi, Building Materials & Technology Promotion Council, Ministry of Urban Development, Government of India.
- Kapur, A. (2010) Vulnerable India: A Geographical Study of Disasters, Sage Pub. New Delhi.
- Modh, S. (2010) Managing Natural Disaster: Hydrological, Marine and Geological Disasters, Macmillan, Delhi.
- 16. Singh. R.B. (2005) Risk Assessment and Vulnerability Analysis, IGNOU, New Delhi.

13.1.21

18.1000 100

9

Belgion

1 Mary 18

- 17. Singh, R. B. (ed.), (2006) Natural Hazards and Disaster Management: Vulnerability and Mitigation, Rawat Publications, New Delhi.
- 18. Sinha, A. (2001). Disaster Management: Lessons Drawn and Strategies for Future, New United Press, New Delhi.
- Stoltman, J.P. et al. (2004) International Perspectives on Natural Disasters, Kluwer Academic Publications. Dordrecht.
- Singh Jagbir (2007) "Disaster Management Future Challenges and Oppurtunities", 2007.
 Publisher- I.K. International Pvt. Ltd. S-25, Green Park Extension, Uphaar Cinema Market, New Delhi, India.

Code - GEO - M 203 (Core Course-07) Resource and Economic Geography (5 Credits)

Time: 3 Hours (ESE)

Full Marks: 100

ESE: 70 Marks CIA: 30 Marks

The questions for End Semester Examination Comprises of three parts as mentioned below

Part - A

Ten objective type Questions - All questions to be answered (Questions shall be selected from the whole syllabus preferably two questions from each unit) $10 \times 2 = 20 \text{ marks}$

Part-B

Five short Answer Questions – Four questions to be answered (Questions shall be selected from the whole syllabus preferably one question from each unit) $4 \times 5 = 20 \text{ marks}$

Part - C

Five long answer Questions -Three questions to be answered. (Questions shall be selected from the whole syllabus preferably one question from each unit) $3 \times 10 = 30 \text{ marks}$

Unit I Meaning and Scope of Economic Geography.

Conservation and Management of Resources with special reference to:

- (a) Water Resources
- (b) Biotic Resources

Conventional Energy Resources: Coal. Petroleum, their Distribution, Production and Conservation

Non-Conventional Energy Resources and their Management.

Unit II Weber's Model and Smith's Model of Industrial location

Iron and Steel Industry of the World with special reference to China and India

Petro-Chemical Complexes with Reference to India

Unit III Distribution and production of some minerals in the World: Iron Ore, Copper ore and

Atomic minerals

Industrial regions of USA and Japan

Inter-regional and intra-regional trade

18.1.21 Skingh 18.1.21 [18.1.202] 10

But 1/6/13

Unit IV Agricultural Regions of the World

Von Thunen's Model of Agricultural Location Food Production, Problems and Food Security

Unit V World Trade Theories and Pattern

Impact of Globalization on World Economy

Role of WTO in World Trade

Concept of Export Processing Zone and SEZ (Special Economic Zone)

CIA 30 marks

Selected Readings:

- 1. Alexander, J. W. & Hartshorne, T. A. (1995): Economic Geography.
- 2. HussainMajid, Economic Geography
- Guha, J. L. & Chattoraj, P. R. (1998): A New Approach to Economic Geography: A Study of Resources
- 4. Singh, J & Dhillon, S. S. (1984) Agricultural Geography. New Delhi, Tata McGraw Hills.
- 5. Boesch, H., A Geography of world Economy.
- 6. Brian, J.L., Berry et al., The Geography of Economic Systems.
- 7. Barlow, M.H. & R.G. Newton., Patterns and Processes in Man's Economic Environment.
- 8. Chisholm, M., Geography and Economics.
- 9. Jones, C.F., Economic Geography.
- 10. Grigg, D.B., Agricultural Systems of the World: An Evolutionary.
- 11. Ll oyd, P. & P. Dickens., Location in Space; A Theoretical Approach to Eco. Geo.
- 12. Strahler, A.N. & A. Strahler., Geography and Man's Environment.
- 13. Thoman, R.S. & E.C. Conkling.. The Geography of Economic Activity.
- 14. Thoman, R., " Econ. Geog," in International Encyclopaedia of S. Science.
- 15. Miller, E. & E. Willard., A Geography of Manufacturing.
- 16. Mc. Carty, H. & J.B.Lindberg., A preface to Economic Geography.
- 17. Von Royen, W., Fundamentals of Economic Geography.
- 18. William Von Royen, et. al., Fundamentals of Economic Geography.
- 19. Zimmerman, E. W., World Resources and Industries.
- 20. Hartshon, T.A., Economic Geography.
- 21. Majid Husain, Economic Geography

Code - GEO – M 204 (Core Course-08) Geography of India (5 Credits)

Time: 3 Hours (ESE)

Full Marks: 100

ESE: 70 Marks

CIA: 30 Marks

The questions for End Semester Examination Comprises of three parts as mentioned below

Part - A

Ten objective type Questions - All questions to be answered (Questions shall be selected from the whole syllabus preferably two questions from each unit) $10 \times 2 = 20 \text{ marks}$

1811.21

585mg h 18-1-2021

1:

Q-1/2.18

Self 11/18

E.1.31

Part-B

Five short Answer Questions – Four questions to be answered (Questions shall be selected from the whole syllabus preferably one question from each unit) $4 \times 5 = 20 \text{ marks}$

Part - C

Five long answer Questions -Three questions to be answered. (Questions shall be selected from the whole syllabus preferably one question from each unit) $3 \times 10 = 30 \text{ marks}$

Unit I India - Relief and Structure; Peninsular and Himalayan Drainage

Origin and Mechanism of Indian Monsoon

Soils of India: Their types. Soil Erosion and Conservation

Unit II Forest Resources in India

Sources of Power: Coal, Petroleum and Hydro-electricity,

Non Conventional Sources of Energy

Unit III Industrial Regions of India

Industrial Policy of India: Concentration and Dispersal

Agricultural Revolutions in India - Green, Blue, Yellow and White

Unit IV Human Resources and Social well being: Social well-being and its indicators

Human Development Index (HDJ)

Cultural Regions of India

Unit V Spatial distribution of Tribes, Major Linguistic Groups and Ethnicity. Social and

Gender inequality in India

CIA 30 Marks

Selected Readings:

- 1. Spate O. H. K. & Learmont- Geography of India & Pakistan
- 2. Ramamoorthy&GopalKrishnam Geography of India
- 3. Singh, Gopal Geography of India
- 4. Singh, Jagdish INDIA: A Comprehensive Systematic Geography
- 5. Puri, G.S., Indian forest Ecology, New Delhi.
- 6. Ray Chaudhary, S.P. Land and soil, New Delhi
- 7. Krishnan, M.S., Geology of India and Burma
- 8. Das, P.K., The Monsoon, New Delhi
- 9. Wadia, D.N., Geology of India, London.
- 10. चतुर्भज ममोरिया भारतकाभगोल
- 11. चौहान बीo एसo एवं गौतमअलका भारत : A Geography of India
- 12. सिंह ए गोपाल- भारतकाभगोल

18:1:21

28 1 201

12 9- Ages

Sit 10118

Code - GEO – M 205 (Practical) (Core Course-09) Cartographic Techniques (5 Credits)

Time: 3 Hours (ESE)

Full Marks: 100 ESE: 70 Marks CIA: 30 Marks

In the End Semester Examination questions will be set preferably from each unit out of which candidates are required to answer any three questions.

Each Question will carry 20 marks. (20×3=60 marks)

Practical record and viva voce will comprise 10 marks

Unit I Cartograms: Hypsographic, Climographic and Altimetric Frequency Curve

Unit II Relief Profiles: Serial, Superimposed, Composite and Projected
Slope Analysis by: Smith, Henry and Wentworth Methods

Unit III Map Projections: Mercator's, Sinusoidal, Gall's and International Projection

Unit IV Interpretations of Aerial Photographs, Satellite Imagery

Geological section and Interpretation of Geological Maps

Unit V Practical Record and Viva-Voce

CIA 30 Morte

Selected Readings:

- I. Monkhouse and Wilkinson Maps and Diagrams
- 2. Mahmood, Aslam, "Statistical Methods for Geographical Studies"
- Campbell, J., Introductory Cartography, Prentice Hall, Inc., Englewood Cliff, New Jersey, 1984.
- 4. Cuff, D.J., & Mattson, M.T., Thematic Maps, their Design and Production, Mathuen, New York., 1982.
- 5. Robinson, A.H. & others., Elements of Cartography, John Willey and Sons, New York (New edition).
- 6. Archer, J.E., & Dalton, T.H., Fieldwork in Geography, London.
- 7. National Atlas and Thematic Maps Organization (NATMO): National Atlas of India, Calcutta.
- 8. Monkhouse, F.J., Maps and Diagrams, Methuen & Co., London, 1967.
- 9. Singh and Singh Practical Geography
- 10. Spurs S.H., Photogrammetry & Photo Interpretation, New .Delhi., 1960.
- 11. Stershew, A.I., Aerial Photography.
- 12. Tomar, M.A. & Maslakar, A.R., Aerial Photographs in Landuse & Forest Survey, Dehra- Dun,
- 13. Thomas, E.A., Interpretation of Aerial Photographs, Minnesota.
- 14. Usill, G.W. (Revised by Hearn, G.S.G) Pract. Surveying, London, 1960.
- 15. White, L.P., Aerial Photography & Remote Sensing for Soil Survey

18:1:21

5/5mg L

13

the State States

- 16. Campbell, James, B., Introduction to Remote Sensing- 2nd Edi. Taylor & Francis, London
- 17. Platt and Charliner Simple Geological Structures
- 18. डा० जे० पी० शर्मा-प्रयोगात्मकभूगोल की रूपरेखा
- 19. डा० पी० आर० चौहान-प्रयोगात्मकभगोल
- 20. डा० चतुर्भुजंमामोरिया एंव अंदामलजैन-मानचित्रांकन एंव प्रायोगिकभूगोल
- 21. डा० हीरालाल-प्रयोगात्मकभूगोल
- 22. डा० एम० एम० पी० सिन्हा एंव डा० सीमाबाला-उच्चकार्टोग्राफी
- 23. सिंह जगदीस और बी. पी. राव भौमिकीय मानचित्रों की रूपरेखा

M. A. GEOGRAPHY (SEMESTER – III) Code - GEO – M 301 (Core Course-10)

Quantitative Techniques and Research Methodology (5 Credits)

Time: 3 Hours (ESE)

Full Marks: 100 ESE: 70 Marks

CIA: 30 Marks

The questions for End Semester Examination Comprises of three parts as mentioned below

Part - A

Ten objective type Questions - All questions to be answered (Questions shall be selected from the whole syllabus preferably two questions from each unit) $10 \times 2 = 20 \text{ marks}$

Part-B

Five short Answer Questions – Four questions to be answered (Questions shall be selected from the whole syllabus preferably one question from each unit) $4 \times 5 = 20 \text{ marks}$

Part - C

Five long answer Questions -Three questions to be answered. (Questions shall be selected from the whole syllabus preferably one question from each unit) $3 \times 10 = 30 \text{ marks}$

Unit I Quantitative Methods in Geography: Merits and limitations, Research types and Methodology, Research Problems and Research Design, Review of Literature

Unit II Data collection and classification, Questionnaire and Schedules, Sampling Types – Random, Stratified and Purposive.

Unit III Hypothesis: Concept and Types, Procedure for Hypothesis Testing, Chi-Square Test, Student's 't' Test

Unit IV Correlation Coefficient Techniques-Pearson and Spearman, Simple Linear Regression Analysis, Analysis of Variance (ANOVA), Multivariate Analysis-Importance and its Application

80 - 8 5/5m h 18/1/21 18/1/201

8. 12. 12 Bills 12/6/18

Unit V Models and Analogue, Types of Model, Gravity Potential Model, Population Potential Model CIA 30 Marks

Note: Use of MS-EXCEL shall be promoted during the classroom teaching

Selected Readings:

- 1. Mahmood, Aslam, "Statistical Methods for Geographical Studies"
- 2. Koshari, K. C., "Research Methodology in Social Sciences"
- 3. Suleman, M., Research Techniques and Methods in Social Sciences
- 4. Adhikari, S. (2005): Fundamentals of Geographical Thought. Allahabad
- 5. Chorley, R. J. & Haggelt, P. (ed.) (1967): Models in Geography, London
- 6. Hartshorne, R. (1994 Indian Print): The Nature of Geography, Jaipur, Rawat Publication
- 7. Harvey: Explanation in Geography
- 8. Kaushik D., S. D. (2001) Bhougolik chintan aur Vidhitantra (Hindi)
- 9. Hammond / Mc Cullah., Quantitative Techniques in Geography, Oxford, 1974.
- 10. Gregory, S., Statistical Method for Geography, Longman, 1975.
- 11. Berry, B.J.L., & Marble, D.F., Spatial Analysis: A Reader in Statistical Geography, New Jersey, 1968.
- 12. Cole, J.P., & King, C.A.M., Quantitative Methods in Geography, New York, 1968,
- 13. King, L.J., Statistical Analysis in Geography, New Jersey.
- 14. Johnson, R.J., Multivariate Statistical Analysis in Geography, 1978.
- 15. Elhance, D.N., Elementary Statistics.
- 16. Pal, S.K., Statistical Methods in Geography.
- 17. Alvi, Zamíruddín., Statistical Geography.

Code - GEO - M 302 (Core Course-11)

Remote Sensing and Geographical Information System (5 Credits)

Time: 3 Hours (ESE)

Full Marks: 100 ESE: 70 Marks

CIA: 30 Marks

The questions for End Semester Examination Comprises of three parts as mentioned below

Ten objective type Questions - All questions to be answered (Questions shall be selected from the whole syllabus preferably two questions from each unit) $40 \times 2 = 20 \text{ marks}$

Part-B

Five short Answer Questions – Four questions to be answered (Questions shall be selected from the whole syllabus preferably one question from each unit) $4 \times 5 = 20 \text{ marks}$

Five long answer Questions -Three questions to be answered. (Questions shall be selected from the $3 \times 10 = 30 \text{ marks}$ whole syllabus preferably one question from each unit)

Unit I Meaning and Definition of Remote Sensing, Historical Development, Significance and Utility of Remote Sensing in Geography.

Unit II Remote Sensing Platforms, Geo-Stationary and Sun-Synchronous Satellites: LANDSAT, IRS, and QUICK- BIRD Series.

Unit III Sensors and Resolution, Interpretation of Aerial Photographs and Satellite Imagery,
 Digital Elevation Model (DEM)

Unit IV Concept and Principles of GIS, Elements of GIS, Nature and Source of Data, Projection and Georeferencing. Digital cartography.

Unit V Raster Vs. Vector Data structure, G.P.S.:- Concept and Applications, Application of Remote Sensing and GIS: Land Information System. Urban Management and Disaster Management.

CIA 30 marks

Selected Readings:

- 1. Avery, T. E. (1962): Interpretation of aerial photograph. Minneapolis.
- 2. Dury, G. M. (1952): Map Interpretation
- 3. Cunan, R. J. (1985): Principles of Remote Sensing.
- Lillesand, T. M. & Kiefer, R. W. (1979): Remote Sensing and Image Interpretation. New York.
- 5. Sabins, F. F. (1997): Remote Sensing and Interpretation. New York.
- 6. Campbell, J. B. Introduction to Remote Sensing, London.
- 7. Fraser Taylor, D. R. (1991): Geographical Information System, London.
- 8. DevidattChauniyal, SudoorSamvedanevamBhaugolikSoochnaPranali.
- 9. Siddiqui, An Introduction to Geographical Information System.
- American Society of Photogrammetry: Mannual of Photographic Interpretation , Banta Pub. Co., Wisconsin, 1960.
- 11. Barett, E.C. & Curtis, L.F., Introduction of Environ. Remote Sensing, 1976.
- 12. Hord, R.M., Remote Sensing: Methods and Applications, N.Y., 1986.
- 13. Lender, D.R., Aerial Photographic, Mc Graw Hill, N.Y., 1960.
- 14. Luder, D., Aerial Photography Interpretation: Princ. and Appl., McGraw Hill, NewYork.. 1959.
- 15. Lilles & Kiefer, Remote Sensing & Image Interpretation.
- 16. Reeves, R.G.(Ed.) Mannual of Remote Sensing (Vol.2), Virginia, 1975.
- 17. Smith, H.T.V., Aerial Photographs & their Applications, New York, 1943.
- 18. Spurs S.H., Photogrammetry & Photo Interpretation, New Delhi., 1960.
- 19. Stershew, A.I., Aerial Photography.
- Tomar, M.A. & Maslakar, A.R., Aerial Photographs in Landuse & Forest Survey, Dehra-Dun
- 21. Thomas, E.A., Interpretation of Aerial Photographs, Minnesota.
- 22. Usill, G.W. (Revised by Hearn, G.S.G) Pract. Surveying, London, 1960.
- 23. White, L.P., Aerial Photography & Remote Sensing for Soil Survey.

Code - GEO - M 303 (Core Course-12) Human and Social Geography (5 Credits)

Time: 3 Hours (ESE)

Full Marks: 100

ESE: 70 Marks

CIA: 30 Marks

The questions for End Semester Examination Comprises of three parts as mentioned below

Part - A

Ten objective type Questions - All questions to be answered (Questions shall be selected from the whole syllabus preferably two questions from each unit) $10 \times 2 = 20 \text{ marks}$

Part-B

Five short Answer Questions – Four questions to be answered (Questions shall be selected from the whole syllabus preferably one question from each unit) $4 \times 5 = 20 \text{ marks}$

Part - C

Five long answer Questions -Three questions to be answered. (Questions shall be selected from the whole syllabus preferably one question from each unit) $3 \times 10 = 30 \text{ marks}$

Unit I Meaning, Definition and Scope of Human Geography

Approaches to Human Geography, Critical Human Geography Growth, Distribution and Density of World's Population

Migration: Causes and Consequences

Unit II Human Settlement: Types and Patterns of Rural Settlements.

Processes and Pattern of Urbanization in the World. (Urbanization and Related

problems)

Age and Sex Composition of the World Population Occupational Structure of the World Population

Unit III Meaning and Scope of Social Geography

Cultural Evolution of Man

Major Human Races in the World- Negroid, Mongoloid, Caucasoid Major World Religions: Their Origin, Diffusion and Spatial Distribution. Major World Languages: Their Origin, Diffusion and Spatial Distribution.

Unit IV Concept of Social Justice and Social Well-being.

Social Structure. Process and Social Pattern.

Components of Quality of Life and its Spatial Pattern

Globalization and Social Transformation

Unit V Recent Changes in Urban and Rural Social Life in India.

Panchayati Raj Institution and Social Transformation in India.

Social Ecology and Social Media in India

B-18:1:21

Asy 17
18:12021
21:21

Q. Adl 18

Self 10/6/16

CIA 30 Marks

Selected Readings:

- 1. An Introduction to Social Geography, Emery Jones and John Eyles
- 2. Cultural Geography Mike Crang
- 3. Sociology and Social Anthropology M. S. Goal
- 4. Social Geography A. Ahmad
- 5. Social Geography Majid Husain
- 6. Social Geography Ruth Panelli
- 7. Rural Sociology in India A. R. Desai
- 8. Readings in Social Geography Emery Jones
- 9. Human Geography Paul. L. Knox, S. A. Marston
- International Encyclopedia of Geography, Vol. VIII (Social Geography) Subhash Mehtani, Amarjit Sinha, Common Wealth Publication Pvt. I.td., New Delhi
- 11. Cultural Geography: Form & Process Neelam Grover and Kashi Nath Singh, Concept Publishing Company, Delhi
- 12. Social Geography of India Ashok Kumar, Anmol Publications, New Delhi
- 13. सांस्कृतिक भूगोल श्रीकान्तदीक्षित एवंरामदेव त्रिपाठी, वसुन्धराप्रकादान, गोरखपुर
- 14. सामाजिक भूगोल डाॅ० एस० डी० मौर्य
- 15. सांस्कृतिक भूगोल इन्दिरा सिंह, युनिवर्सिटीपब्लिकेदान, नयीदिल्ली
- 16. सांस्कृतिक भूगोल गायत्री प्रसाद

Code - GEO - M 304 (Core Course-13) Land use and Agriculture Geography (5 Credits)

Time: 3 Hours (ESE)

Full Marks: 100 ESE: 70 Marks

CIA: 30 Marks

The questions for End Semester Examination Comprises of three parts as mentioned below

Part - A

Ten objective type Questions - All questions to be answered (Questions shall be selected from the whole syllabus preferably two questions from each unit) $10 \times 2 = 20 \text{ marks}$

18.1.2

181201 0

2. Ade 18

Sht 12/1/18

Part-B

Five short Answer Questions – Four questions to be answered (Questions shall be selected from the whole syllabus preferably one question from each unit) $4 \times 5 = 20 \text{ marks}$

Part - C

Five long answer Questions -Three questions to be answered. (Questions shall be selected from the whole syllabus preferably one question from each unit) $3 \times 10 = 30 \text{ marks}$

Unit I Meaning and Scope of Landuse and Agricultural Geography

History of Landuse survey

Model of Landuse: Von Thunen, Jonassan

Major Land Reforms in India

Unit II Landuse classification: U. K. and India

Landuse pattern in India Land capability classification Planning of Landuse in India

Unit III Fundamental concept of Agriculture Geography

History of Agriculture Geography
Factors influencing Agricultural Pattern
Agricultural Systems of the world

Unit IV Concept and Techniques of delimitation of agricultural regions

Measurement of Agricultural productivity and efficiency

Crop-combination and diversification

Cropping pattern in India

Unit V New Agricultural Technology

Green Revolution and White Revolution in India

Agro-climatic regions of India Agricultural problems and policies

CIA 30 Marks

Selected Readings:

- 1. Hussain, Majid Agriculture Geography
- 2. Singh J. & Dhillon, S. S. Agriculture Geography
- 3. B. S. Negi-KrishiBhugol
- 4. Sharma, B. L. KrishiBhugoal
- 5. Wrigley Tropical Agriculture
- 6. Ali Mohammad Studies in Agriculture Geography
- 7. Krishna, D. The New Agricultural Strategy

18:1:21

Sky 101

Q 126.18

2 H 0/6/18

- 8. Dutta and Sundaram-Indian Economy
- 9. Kumar, Pramila and Sharma, S.K.: Krishi Bhoogol
- 10. Smith, T.P. Bayliss: The Ecology of Agricultural Systems
- 11. Morgan, W.B. and Norton J.C.: Agricultural Geography
- 12. Singh, B.B.: Krishi Bhoogol
- 13. Symons, L: Agricultural Geography
- 14. Shafi. M: Agricultural Geography
- 15. Tiwari, R.C. and Singh, B.N.: Krishi Bhoogol

Code - GEO - M 305 (Practical) (Core Course-14) Instrumental Surveying, GIS and GPS (5 Credits)

Time: 3 Hours (ESE)

Full Marks: 100

ESE: 70 Marks CIA: 30 Marks

In the End Semester Examination questions will be set preferably from each unit out of which candidates are required to answer any three questions.

Each Question will carry 20 marks. (20×3=60 marks)

Practical record and viva voce will comprise 10 marks

Unit I Survey by Levelling instrument

Finding out Rise and Fall

Plotting of Longitudinal Profile

Unit II Theodolite Survey: Formation and Calculation of Triangles

Preparation of Ground plan and Ground Profiles Measurement of Base line and its extension

Formation of Polygon

Unit III Georeferencing using GIS

Map Registration using GIS

Unit IV Digitisation and Map Preparation using GIS

Surveying through hand held GPS

Unit V Practical Record and Viva-Voce

CIA 30 Marks

Note: Departments are requested to introduce open source software like Q GIS

Selected Readings:

1. M. M. P. Sinha & Seema Bala- Advanced Cartography (mPpdkVksZxzkQh)

2. Kanetkar – Surveying and leveling Vol. I & II

18,1,21

18.1.202

2-Adr 18 Del

U Nous 10/6/18

- 3. Punamia- Surveying Vol. I, II & III
- 4. J. P. Sharma प्रयोगात्मक भूगोल की रूपरेखा
- 5. Punmia, B.C., Surveying and Leveling, Vol I.
- 6. Alvi, Zamiruddin, A Text Book of Surveying
- 7. Basak, N.N. 2017. Surveying and Levelling, 2nd ed, McGraw Hill Education.
- 8. Bolton, T. 2009 (reprint). Geological Maps: Their Solution and Interpretation, Cambridge Univ. Press.
- 9. Kanetkar, T.P., Kulkatni, S.V. 1988. Surveying and Levelling, Part I, Pune Vidyarthi Griha Prakashan.
- 10. Monkhouse, F.J., Wilkinson, H.R. 1971. Maps and Diagrams
- 11. Robinson, A.H., Morrison, J.L., Phillip, C.M., Kimerling, A.J., Guptill, S.C. 1995. Elements of Cartography, 6th ed, Wiley.
- 12. Sarkar, A. 2015. Practical Geography: A Systematic Approach, 3rd ed, Orient Blackswan Private Ltd.
- 13. Singh, R.L., Singh, R.P.B. 2008. Elements of Practical Geography, Kalyani Publishers.
- 14. Siddiqui, An Introduction to Geographical Information System
- 15. Tomlin, C.D., GIS and Cartographic Modelling, Prentice Hall

e. Ad 13

21

1 Wow 12/6/18

M. A. GEOGRAPHY (SEMESTER – IV) Code - GEO – M 401 A (Elective Course-01) Urban Geography (5 Credits)

Time: 3 Hours (ESE)

Full Marks: 100

ESE: 70 Marks CIA: 30 Marks

The questions for End Semester Examination Comprises of three parts as mentioned below

Part - A

Ten objective type Questions - All questions to be answered (Questions shall be selected from the whole syllabus preferably two questions from each unit) $10 \times 2 = 20 \text{ marks}$

Part-B

Five short Answer Questions – Four questions to be answered (Questions shall be selected from the whole syllabus preferably one question from each unit) $4 \times 5 = 20 \text{ marks}$

Part - C

Five long answer Questions -Three questions to be answered. (Questions shall be selected from the whole syllabus preferably one question from each unit) $3 \times 10 = 30 \text{ marks}$

Unit − I Definition and Scope of urban geography, Development of urban geography in India

Urban ecology and Urban System

Basis of urban functions and functional classification of towns

Unit II Rank-Size Rule and Primate City

Urban hierarchy

Million Cities and Mega Cities

Concept of Megalopolis and Metropolitan regions

Unit III Concept of urban morphology

Theories of urban landuse - Burgess, Hoyt, Harris and Ullman

Concept and characteristic of CBD

Conurbation, Urban Agglomeration in context of India

Unit IV Trend of Urbanization in India and the World

Concept of City region Concept of Umland Rural urban fringe

Unit V Urban problems with reference to slums

Urban poverty

Urban planning policies in India

Smart city concept

1-21 181-202

12 P-12.6-1

Silke tota

CIA 30 Marks

Selected Readings:

- 1. Carter, H. (1972) The Study of Urban Geography. Arnold Heinemann
- 2. Geddes, P. (1968) Cities in Evolution, Benn Publisher.
- 3. Hall, P. (1992) Urban & Regional Planning, Routledge, London
- 4. Johnson, J. (1972) Urban Geography: An introductory Analysis, Germ Area
- 5. Mayer & Kohn (1959) Readings in Urban Geography, Chicago Area
- 6. Scott, J A. (2001) Global city Region, Oxford University area, U.K.
- 7. Sinha M. M. P. & Seema Bala: Nagariya Bhoogol (Hindi)
- 8. Bansal: Nagariya Bhoogol (Hindi)
- 9. Alam, S.M., Hyderabad-secundarabad Twin Cities, Asia Publishing House, Bombay.
- Berry, B.J.L and Horton, F.F., Geographic perspectives on Urban Systems, Prentice Hall, Englewood Cliff, New Jersy, 1970.
- 11. Beaujeu Garnier, J., Chabot, G., Urban Geography, London, 1969.
- 12. Dickinson, R.E., 1964., City and Region, Routledge, London.
- 13. Gibbs, J.P., Urban Research Methods, New Jersey, 1961

Code - GEO - M 401 B (Elective Course-01) Political Geography (5 Credits)

Time: 3 Hours (ESE)

Full Marks: 100

ESE: 70 Marks CIA: 30 Marks

The questions for End Semester Examination Comprises of three parts as mentioned below

Part - A

Ten objective type Questions - All questions to be answered (Questions shall be selected from the whole syllabus preferably two questions from each unit) $10 \times 2 = 20 \text{ marks}$

Part-B

Five short Answer Questions – Four questions to be answered (Questions shall be selected from the whole syllabus preferably one question from each unit) $4 \times 5 = 20 \text{ marks}$

Part - C

Five long answer Questions -Three questions to be answered. (Questions shall be selected from the whole syllabus preferably one question from each unit) $3 \times 10 = 30 \text{ marks}$

Unit – I Meaning and scope of Political Geography;
Approaches to Political Geography; Functional and Unified Field Theory Approaches
Geopolitics; Classical Geopolitics and Critical Geopolitics

Unit- II Geopolitical World Order: Origin and Cessation of cold war;
 Global Strategic Views: H. J. Mackinder, N G Spykman,
 Geopolitics of Asia-Pacific

8 - 121 Asnyh
18-1-21 Asnyh
24W 121 (18-1-2) 23 2 12-6-18

Stepoto

-				7500
n	in	**		A
100	2	11	VARIA.	J.A.

Ten objective type Questions - All questions to be answered (Questions shall be selected from the whole syllabus preferably two questions from each unit) $10 \times 2 = 20 \text{ marks}$

Part-B

Five short Answer Questions – Four questions to be answered (Questions shall be selected from the whole syllabus preferably one question from each unit) $4 \times 5 = 20 \text{ marks}$

Part - C

Five long answer Questions -Three questions to be answered. (Questions shall be selected from the whole syllabus preferably one question from each unit) $3 \times 10 = 30 \text{ marks}$

- Unit I Historical Account of Bihar as a State.
 - Geological Formation and Landforms, Physiographic Divisions, Drainage, Soils, River Valley Projects: Gandak, Kosì and Sone
- Unit II Climate: Regional Variation in Rainfall and Temperature, Seasonal Variation of Rainfall and Temperature
 Flood and Drought Prone Areas, Wet Land Areas
- Unit III Landuse and Agriculture: Landuse Pattern, Agricultural Infrastructure, Agricultural Seasons, Food Crop, Cash Crop, Development and Prospect of Horticulture, Aquaculture, Floriculture, Herbal Plants, Pisciculture, Agricultural Regions
- Unit IV Industries: Agro Based Industries, Small and Cottage Industries,
 Prospects of Food and Fruit Processing Industries,
 Industrial Regions
- Unit V Population and Settlement: Population Attributes- Growth, Distribution, Occupation, Age and Sex Ratio,
 Evolution of Settlement: Types and Pattern,
 Morphological Features, Rural Dwellers

CIA - 3

Selected Readings:

- 1. M.S. Pandey- Historical Geography and Topography of Bihar
- 2. Ahmed, E. Bihar- Physical, Economic and Regional Geography
- 3. Sinha, VNP and Nazim Md.- Bihar: Land and People
- 4. Sharma, N. Bihar Ka Bhugol (Hindi)

18.1.21 18.1.201 201.21 201.21 201.21 201.2

33 - 2 Ad

U Mans 12/6/18

Sitte 16/10

Unit III

Indicators of Development

Regional disparities in India

Need for Regional Planning in India

Regional Development in India - Problems and Prospects.

Unit IV

Concept of Multi Level Planning

Role of Panchayati Raj Institutions in Rural Development

Defining Development and Rural Development; Gandhian approach to rural

development

Unit V

Area Based Approach to Rural Development: Drought Prone Area Programme,

· PMGSY

Target Group Approach: SJSY, MGNREGA, Jan Dhan Yojana and PURA

Provision of Services- Physical and Socio-Economic Access to Elementary Education

and Primary Health Care and Micro Credit

CIA

30 marks

Selected Readings

13. Bhatt, L.S., 1973, Regional Planning in India, Statistical Publishing Society, Calcutta.

14. Chandana, R.C., 2000, Regional Planning, Kalyani Publishers Ludhiana.

15. Chand, M., Puri, & V.K., 1983, Regional Planning in India, Allied Publishers, New Delhi.

- 16. Friedman., J., & Alonso, W, 1967 Regional Development and Planning-A Reader, MIT Press, Cambridge Hars.
- 17. Glasson, 1980, Regional Planning, Hutchinson, London.
- 18. Glikson, 'A., 1955, Regional and Development, Netherlands, Universities Foundation of International Corp, London.
- Mishra, R.P., 1969. Regional Planning Concepts, Techniques and Policies, University of Mysore, Mysore.
- 20.Mishra R.P, et.al., 1974, Regional Development and Planning in India, Institute of Development Studies, Mysore.
- 21.Rao, V.L.B., 1960, Regional Planning, Asia Publishing House, New Delhi.
- 22.Kant Surya et.al (eds).: Reinventing Regional Development, Rawat Publication, Jaipur and N.Delhi.
- 23.श्रीवास्तव शर्मा एवं चौहान-प्रादेशिक नियोजन एवं संतुलित विकास
- 24. Singh, K., Rural Development, SAGE

Code- Generic Course-GE-01 Geography of Bihar (5 Credits)

Time: 3 Hours (ESE)

Full Marks: 100

ESE: 70 Marks CIA: 30 Marks

The questions for End Semester Examination Comprises of three parts as mentioned below

Sim 2

18.130)

Q-A-00.18

Bill 12/6/18

Unit III

Selection of sampling site, defining sampling size, and conducting socio-economic survey at households level with a self- structured questionnaire and supplementing the information by personal observations and perceptions.

Unit IV

Based on results of the land-use and socio-economic survey of the households, preparation of a critical field-survey report. Photographs and sketches, in addition to maps and diagrams, may supplement the report.

CIA	***************************************	30 Mari

Selected Readings

- 1. Gregory, Ş. 1980. Statistical methods and the Geographer. Longman, London
- 2. Mahmood, A. 2008. Statistical Methods in Geographical Studies. Rajesh Pub., New Delhi.
- 3. Ibrahim, R. 1992. Socio-Economic Profile of Mewat. Radha Publishers. New Delhi.
- 4. Robinson, A.H., et.al. 1995(6th edition). Elements of Cartography. John Wiley , New York.
- 5. Raisz, E. 1962. Principles of Cartography. Mc Graw Hill, New York.

Code- Discipline Specific Elective -DSE-01 (201-CC) Regional Planning and Rural Development (5 Credits)

Regional Planning and Rural Development (5 Credits)

Time: 3 Hours (ESE)

Full Marks: 100

ESE: 70 Marks CIA: 30 Marks

The questions for End Semester Examination Comprises of three parts as mentioned below

Part - A

Ten objective type Questions - All questions to be answered (Questions shall be selected from the whole syllabus preferably two questions from each unit) $10 \times 2 = 20$ marks

Part-B

Five short Answer Questions – Four questions to be answered (Questions shall be selected from the whole syllabus preferably one question from each unit) $4 \times 5 = 20 \text{ marks}$

Part - C

Five long answer Questions -Three questions to be answered. (Questions shall be selected from the whole syllabus preferably one question from each unit) $3 \times 10 = 30 \text{ marks}$

Unit I

Regional Planning: Concept, Merits and Limitation

Planning Process - Sectoral, Temporal and Spatial Dimensions

Concept of Planning Region and Methods for Delineation of Regions

Unit II

Special Purpose Planning Regions in India:

River Valley Regions

Metropolitan Region

Problem Regions - Hilly Regions, Tribal Regions

18:1:21

Asm h 18.1.203

9-12618

8 th 1 1 16/18

Selected Readings:

- 1. F. J. Monkhouse Maps & Diagrams & H. R. Wilkinson
- 2. Sinha, M. M. P. & Bala, Seema Advanced Cartography, Sharda Publication, Allahabad
- 3. Kanetkar Surveying and leveling Vol- II
- 4. Punmia, B. C. Surveying Part II & III
- 5. Sarkar, A. Practical Geography: A Systematic Approach, Orient Blackswan Private Ltd.
- 6. Singh, R.L. and Singh, R.P.B. Elements of Practical Geography, Kalyani Publishers, New Delhi
- 7. Maltiar, K.K. and Maltiar, S.R. Concept of Cartography, Remote Sensing and G.I.S. -Rajesh Publication, New Delhi
- 8. Devis, R.E., Foote, F.S. and Kelly, J.W. Surveying: Theory and Practice
- 9. Misra, R. P., Singh, R. B., Misra, Brijesh and Pandey, Anupam Fundamentals of Cartography, Concept Publishing Company Pvt. Ltd., New Delhi
- 10. Narayan, L.R.A. Remote Sensing and its Application, Universities Press, Hyderabad
- 11. Venkatramaiah, C. -Textbook of Surveying, Universities Press, Hyderabad
- 12. Joseph, George Fundamentals of Remote Sensing, Universities Press, Hyderabad
- 13. Fazal. S. Remote Sensing Basics, Kalyani Publishers, Ludhiana
- 14. Lillesand, T.M., Kiefer, R.W. and Chipman, J.W. Remote Sensing and Image Interpretation, Wiley India Pvt. Ltd., New Delhi

GEO -M- 402, Elective Course - 02 Tour REPORT Dissertation / Project World (5 Credits)

> Full marks-100 CIA-30

Students have to prepare a Dissertation / Project work based on Socio-Economic survey.

The topic will be approved by departmental council.

ESE will consist of total of 70 marks, out of which, 45 marks will be on a written test and 25 marks for Viva Voce on dissertation. CIA will comprise of written test. Presentation and brief summary of report.

Students have to submit one copy of dissertation/ Project work report prior to the commencement of the semester examination

Procurement of a topographic map of 1:50,000 to 1:25,000 scale to study the settlements Unit I selected in its regional setting

Unit II Collection of demographic, social & economic data of the village/town from Census Reports to study the temporal changes in the profile of such characteristics.

5/5mg/h 30 -Adl Sill Whom 18.01.2021 12.6.12 Sill 10.16/18

- 5. Misra, R. P. & K. Misra (Ed.) Million Cities of India, Nice Publisher
- 6. Singh, R. Y.: An Introduction of settlement Geography
- 7. Ghosh, S.: Settlement Geography
- 8. Sinha, V.N.P., Verma U., & Sahay A.- Introduction to Settlement Geography

Code- GEO – M 401 F (Elective Course-01) Advance Cartography (5 Credits)

Time: 3 Hours (ESE)

Full Marks: 100

ESE: 70 Marks

CIA: 30 Marks

The questions for End Semester Examination Comprises of three parts as mentioned below

Part - A

Ten objective type Questions - All questions to be answered (Questions shall be selected from the whole syllabus preferably two questions from each unit) $10 \times 2 = 20 \text{ marks}$

Part-B

Five short Answer Questions – Four questions to be answered (Questions shall be selected from the whole syllabus preferably one question from each unit) $4 \times 5 = 20 \text{ marks}$

Part - C

Five long answer Questions -Three questions to be answered. (Questions shall be selected from the whole syllabus preferably one question from each unit) $3 \times 10 = 30 \text{ marks}$

Unit –I Brief history of cartography and its present status;
 Fundamentals of computer based cartography and its application;
 Thematic maps –types and their use.

Unit-II Mathematical construction and characteristics of the following map projections —
Conical Equal- Area with one standard parallel (Lambert's V); Gnomomic projection
(Equatorial Case); Stereographic projection (Equatorial Case); Cassini's Projection

Unit III Principles of triangulation Survey: Measurement of base-line in triangulation survey.

Definition and characteristics of the following astronomical terms – Azimuth, Right Ascension, Hour Angle, Star at elongation, Altitude, Declination.

Unit IV Brief history and basic principle of Photogrammetry;
Types and scales of aerial photographs.
Interpretation of aerial photographs.

Unit V Brief history of satellite remote sensing;
Concept of remote sensing;
Development of remote sensing in India;
Elements of the interpretation of satellite imageries.

CIA 30 Marks

18,1,21

18.1.2021 P. Q. 2-450-18

So Marks U Usan Solb 118

Part - A

Ten objective type Questions - All questions to be answered (Questions shall be selected from the whole syllabus preferably two questions from each unit) $10 \times 2 = 20 \text{ marks}$

Part-B

Five short Answer Questions – Four questions to be answered (Questions shall be selected from the whole syllabus preferably one question from each unit) $4 \times 5 = 20 \text{ marks}$

Part - C

Five long answer Questions -Three questions to be answered. (Questions shall be selected from the whole syllabus preferably one question from each unit) $3 \times 10 = 30 \text{ marks}$

Unit I Meaning and Scope of Settlement Geography

Development of Settlement Geography in India Evolution of Settlement in the Middle Ganga Valley

Types of Rural settlement in India

Unit II Old Sites of Settlements and Nomenclature

Development of Different forms of Rural settlements

Morphological features of Rural Settlements

Problems of rural settlements

Unit III Rural house types in different geographical environment in India

Rural – Urban continuum Rural Service centres Hierarchy of settlements

Unit IV Locational and functional features of urban settlements

Morphological features of Indian cities Problems of Indian urban centres Problems of slums in India

Unit V Planning of Rural settlements

Planning of urban settlements

Metropolitan region

Planned urban centres of India

CIA 30 Marks

Selected Readings:

- 1. Hopkinson, D. (1989) Geography of Settlement, Oliver & Boyd
- 2. Hudson, F. S. (1970) Geography of Settlement, Mackold&Erau.
- 3. Singh, R. L. (Ed.) Rural Settlements in Monsoon Asia
- 4. Carter, H. (1972) The Study of Urban Geography, Arnold Heinemann

18.1.21 Lym, 21 85m/ 28 18.1.2029 Setter Whomas

Five long answer Questions -Three questions to be answered. (Questions shall be selected from the whole syllabus preferably one question from each unit)

3 x10 = 30 marks

Unit I

Definition, scope and function of Geology, Principles of correlation, Standard Stratgraphic scale, Indian Stratigraphic scale.

Unit II

Origin, geographical distribution and lithological characteristics of Dharwar system, Vindhyan system. Gondwana system and Deccan Lava system.

Unit III

Classification, mode of occurrence and distribution of the following minerals with special reference to India — Iron ore, Mica, Bauxite and Copper

Unit IV

Classification mode of occurrence and distribution of energy resources in India: Coal, Petroleum, Uranium and Thorium

Unit V Rocks and mineral association, form, structure and classification of igneous rocks,
 Origin and types of sedimentary rocks, Process of metamorphism, Types and characteristics of metamorphic rocks.

CIA - 30

Selected Readings:

- 1. Wadia, D. N. Geology of India
- 2. Mukharjee, P. K. Physical Geology

3^च D. P. Singh - भारतका भूवैज्ञानिक परिचय

- 4. Mehar D. N. Wadia Minerals of India
- 5. Gokhale and Rao Minerals of India
- 6. Platt and Charliner Simple Geological Structures

7ण Karna, N. N. – सरल भूवैज्ञानिक संरचनाएँ

8ण Singh, Jagdish & B. P. Rao -भौमिकीय माानचित्रों की रूपरेखा

Code- GEO – M 401 E (Elective Course-01) Settlement Geography (5 Credits)

Time: 3 Hours (ESE)

Full Marks: 100 ESE: 70 Marks CIA: 30 Marks

The questions for End Semester Examination Comprises of three parts as mentioned below

18:1:21

18 1-2021

2 ASC PEL

Sell 12/6/18

- 7. Bhende, A.A. & Kanitkar, (2014), Principles of Population Studies, Himalayan Pub. H., Mumbai,
- 8. Bogue, D. J., Principles of Demography, New York, 1969.
- 9. Chandna, R.C., Geography of Population: Concepts Determinants and Pattern, Kalyan Pub. Ludhiana, 2014.
- 10. Clarke, J.I. Population Geography, Oxford, 1981.
- 11. Hassan M.I., Population Geography, Rawat Pub. Jaipur, 2008.
- 12. Jhingan M.L. Bhatt B.K. and Desai, J.N. Demography, Vrid Pub. Delhi, 2006
- 13. Khullar D.R., India: A comparative Geography, Kalyan Pub. Ludhiana, 2014.
- 14. Mandal, R.B. Uyanga J and Prasad H., Introductory Methods in Population geography, Concept Pub. Co. New Delhi-2007.
- 15. Maurya S.D., Population Geography, Pravalika Pub. Allahabad, 2014.
- 16. Newbold, K.B.- Population Geography: Tools and Issues, Rawat Pub. Jaipur, 2012.
- 17. Palmore, J.A. and Gardner R.W. Measuring, Mortality, Fertility and Migration: A Self Teaching Guide to Elementary Measures. The East-West Centre, Honolulu, 1987.
- 18. IPoston, Jr D.L. and Bouvier L.F., Population and society: An Introduction to Demography. Cambridge Uni. Press, New York, 2010.
- 19. Premi M.K. and Das D.N., Population of India 2011, B.R. Pub. Delhi, 2012.
- 20. Sriniwas, K. Basic Demographic Techniques and Applications, Sage Pub. New Delhi, 1998.
- 21. Trewartha, G.T., A Geography of Population: World Patterns, NY, 1969.

Code- GEO – M 401 D (Elective Course-01) Geology of India (5 Credits)

Time: 3 Hours (ESE)

Full Marks: 100

ESE: 70 Marks CIA: 30 Marks

The questions for End Semester Examination Comprises of three parts as mentioned below

Part - A

Ten objective type Questions - All questions to be answered (Questions shall be selected from the whole syllabus preferably two questions from each unit) $10 \times 2 = 20 \text{ marks}$

Part-B

Five short Answer Questions – Four questions to be answered (Questions shall be selected from the whole syllabus preferably one question from each unit) $4 \times 5 = 20 \text{ marks}$

Part - C

0)8-12

1 1 2. A 20 1 86 1 86

Sulfo ita

Ten objective type Questions - All questions to be answered (Questions shall be selected from the whole syllabus preferably two questions from each unit) $10 \times 2 = 20 \text{ marks}$

Part-B

Five short Answer Questions – Four questions to be answered (Questions shall be selected from the whole syllabus preferably one question from each unit) 4 x5 = 20 marks

Part - C

Five long answer Questions -Three questions to be answered. (Questions shall be selected from the whole syllabus preferably one question from each unit) $3 \times 10 = 30 \text{ marks}$

Unit I Nature and Scope of Population Geography,

Historical development of Population Geography, Relationship with Demography,

Sources of Population Data: The Census, vital registration and other sources.

Population distribution, growth and determinants: Pre-historic, ancient, medieval and Unit II

modern period:

Theories of Population Growth: - Malthus, Marx and Demographic Transition

Unit III Population Dynamics: Fertility-measurement; Mortality measurement, determinants

and distribution; Migration: Brief history, trends and pattern of international

migration, migration in India, Indian Diaspora.

Unit IV Population Regions: Typology of population regions. Ackerman scheme of population

resource region.

Human security - economic, food and health.

Unit V Growth and distribution of population in India

Population composition of India Internal migration in India Trends of urbanization

Urban problems

CIA

Selected Readings:

- 1. Chandana, R. C. A Study in Population Geography
- 2. Ghosh, B. N. Population Geography
- 3. Hiralal Jansankhya Bhoogol
- 4. Bhende and Kantkar Population Studies
- 5. Singh, R. L. Practical Geography
- 6. Sharma J. P. Prayogic Bhoogol Ki Rooprekha (Hindi)

Unit- III	Concept of Nation and State
	Land-Locked States
	Frontiers and Boundaries
	Maritime Boundaries
Unit –IV	Changing Political map of India: State re-organization Geographical Bases of Indian Federalism
	River water Disputes – International and National
Unit- V	Sino-Indian Border Dispute Kashmir Problem
**	Geopolitics of Indian Ocean: Sino Indian Rivalry Regionalism in India
	Geopolitical codes of India

	C	IA							- 3	0
--	---	----	--	--	--	--	--	--	-----	---

Selected Readings:

- 1. John R. Stuart (1982) An Introduction to Political Geography
- 2. Richard Muir (1995) Modern Political Geography
- 3. Bergman K. Edward (1975) Modern Political Geography
- 4. Luclie Carlson (1971) Geography and World Politic
- 5. S. B. Cohen (1968) Geography and Politics in a Divided world
- 6. N. J. G. Pounds (1972) Political Geography
- 7. I. M- Alexander (1963) World Political Systems
- 8. P. J. Taylor & C. Flint: (2004 India. Ed) Political Geography
- 9. R. D. Dikshit (1982) Political Geography
- 10. S. Adhikari (1997) Political Geography
- 11. B. L. Sukhwal (1985) Modern Political Geography of India
- 12. S. Adhikari (2008) Political Geography of India: A contemporary Perspective.
- 13. G. Parkar (1998) Geopolitics: Past, Present and Future.
- S. K. Dikshit (2006) Political Geography and Geo-politics
- Hari Mohan Saxsena (2009) Political Geography
- 16. S. Adhikari and Ratan Kumar (2010) -Political Geography

Code - GEO - M 401 C (Elective Course-01) Population Geography (5 Credits)

Time: 3 Hours (ESE)

Full Marks: 100 ESE: 70 Marks

CIA: 30 Marks

The questions for End Semester Examination Comprises of three parts as mentioned below

Unit- III	Concept of Nation and State Land-Locked States Frontiers and Boundaries Maritime Boundaries				
Unit –IV	Changing Political map of India: State re-organization Geographical Bases of Indian Federalism River water Disputes – International and National				
Unit- V	Sino-Indian Border Dispute Kashmir Problem Geopolitics of Indian Ocean: Sino Indian Rivalry Regionalism in India Geopolitical codes of India				

Selected Readings:

- 1. John R. Stuart (1982) An Introduction to Political Geography
- 2. Richard Muir (1995) Modern Political Geography
- 3. Bergman K. Edward (1975) Modern Political Geography
- 4. Luclie Carlson (1971) Geography and World Politic
- 5. S. B. Cohen (1968) Geography and Politics in a Divided world
- 6. N. J. G. Pounds (1972) Political Geography
- 7. I. M- Alexander (1963) World Political Systems
- 8. P. J. Taylor & C. Flint: (2004 India. Ed) Political Geography
- 9. R. D. Dikshit (1982) Political Geography
- 10. S. Adhikari (1997) Political Geography
- 11. B. L. Sukhwal (1985) Modern Political Geography of India
- 12. S. Adhikari (2008) Political Geography of India: A contemporary Perspective.
- G. Parkar (1998) Geopolitics: Past, Present and Future.
- S. K. Dikshit (2006) Political Geography and Geo-politics
- 15. Hari Mohan Saxsena (2009) Political Geography
- S. Adhikari and Ratan Kumar (2010) -Political Geography

Code - GEO - M 401 C (Elective Course-01) Population Geography (5 Credits)

Time: 3 Hours (ESE)

Full Marks: 100 ESE: 70 Marks

- 30

CIA: 30 Marks

The questions for End Semester Examination Comprises of three parts as mentioned below

Part-A 8 18-11-21 Stamp 18-11-21 Stamp 1 18-11-21 Stamp 1 18-01-21 All 18-01-21 All