Shivaji University, Kolhapur

Department of Geography

(Faculty of Science and Technology)

Academic Flexibility

Revised Syllabus
of
M.A./M.Sc. Geography
(Credit Based Semester System)

Implemented From….
June, 2018 Onwards

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A) Ordinance and Regulations

B) Shivaji University, Kolhapur, New/ Revised Syllabus for Master of **Science and Technology**

1. **Title of the Course:** M.A./M.Sc. Geography
2. **Faculty:** Faculty of Science and Technology
3. **Year of Implementation:** New syllabus will be implemented from June 2018 onwards
4. **Preamble:**
   Total semesters – 04 (two semester per year)
   Total theory papers – 16 (per semester – 04)
   Total practical/Project papers – 08 (per semester – 02)
5. **General Objectives of the Course:**
   - To inculcate the fundamental knowledge of Geography and develop research attitude among the students
   - To develop the ability of making comprehensive analysis, interpret spatial problem, suggest proper solutions by using theoretical, methodological and instrumental knowledge of Geography.
   - To generate employability skills among the Geography students.
   - To guide students about proper utilization of natural resources through Geographical knowledge.
   - To create awareness among the students about the regional and national environmental issues
   - To create awareness among the students about recent trends and advanced technology in the field of Geography.
6. **Course Duration:**
   The M.A./M.Sc course duration is of two years comprising of four semesters, each semester spanning for 6 months of minimum 120 working days.
   Period of Course:
   Semester I & III - June to November
   Semester II & IV- December to May
7. **Course Pattern: CBCS**
8. **Fee Structure:** As per University Rules and Regulations
9. **Eligibility of Course**:
   Admission will be open to candidates passing B.A./B.Sc. degree in Geography, Geology, Environment Science form Shivaji University or any other statutory university.
   Selection Procedure:
   In the selection procedure 50% weightage will be given to entrance examination conducted by Shivaji University, Kolhapur and remaining 50% weightage will be given to the aggregate marks obtained at B.A./B.Sc. examination. The merit list of eligible candidates will be displayed on Shivaji University web site: www.unishivaji.ac.in
10. **Medium of Instruction:** English
11. **Structure of Course:**

Shivaji University, Kolhapur

Department of Geography

(Revised Syllabus Introduced from June, 2018)

M.A./M.Sc. Geography Course Structure (Credit Based Semester System)

Semester - I

Paper Type	Paper No.	Title
Theory (Core)	GCT-101:	Fundamentals of Geomorphology
	GCT-102:	Principles of Climatology
	GCT-103:	Economic Geography
	GCT-104:	Geography of Population and Human Resource Development
Practical	GCP-101:	Practical in Geomorphology and Field Survey
	GCP-102:	Analysis of Socio-economic and Climatic Data

Semester - II

Paper Type	Paper No.	Title
Theory (Core)	GCT-205:	Applied Geomorphology
	GCT-206:	Applied Climatology and Climate Change
	GOT-201:	Social and Cultural Geography
		or
	GOT-202	Geography of India
	GOT-203:	Political Geography
		or
	GOT-204	Geography of Health
Practical	GCP-203:	Computer Application in Geography
	GCP-204:	Statistical Techniques in Geography

*GCT = Geography-Core-Theory; GCP = Geography-Core-Practical; GOT = Geography-Optional-Theory

12. Scheme of Teaching and Examination:

Teaching Faculties:

Head of the Department: Prof. S.S. Panhalkar

Teaching Staff: Professor - 02, Associate Professor- 02, Assistant Professor - 06

Non-Teaching Staff:

Clerk - 01, Lab. Assistant - 01, Lab. Attendant - 01, Peon - 01

Scheme of Teaching:

Paper Type	Number of papers/ Semester	Lecture hours /paper/week	Total workload (hours/week)
Theory	04	04	**16**
Practical/Project	02	06	**12**
Total	06	10	**28**

Scheme of Examination:

Paper Type	Internal Marks	Final Exam Marks	Total Marks
Theory	20	80	100
Practical	20	80	100
Project	50	50	100

Note:

1. Internal marks (Theory = 20 marks): Class Test: 10 Marks & Assignment/Seminar: 10 marks
2. Internal marks (Practical = 20 marks): Practical Assessment: 10 marks & Assignment: 10 marks
3. Internal marks (Project = 50 marks): Project/Tour Report: 30 marks & Seminar: 20 marks

13. Standard of Passing: 40 Per cent

14. Nature of Question Paper in Final Exam (Theory):

Question No.	Type of Question	Number of Questions to be Asked	Number of Questions to be Answered	Marks per Question	Total Marks
Q1.	Objective type (MCQ)	08	08	02	16
Q2.	Short Answer (Definition type)	04	04	04	16
Q3.	Short Notes (Descriptive type)	03	02	08	16
Q4.	Long Answer/ Essay type	02	01	16	16
Q5.	Long Answer/ Essay type	02	01	16	16
Total = 05	--	--	--	--	**80**

Nature of Question Paper in Final Exam (Practical):

Question No.	Type of Question	Marks per Question	Total Marks
Q1 to Q4	Practical/Lab Assessment	15	60
Q5.	Practical Assignment	10	10
Q6.	Viva-voce	10	10
Total = 06	--	--	**80**

Nature of Question Paper in Final Exam (Project):

Question No.	Type of Question	Marks per Question	Total Marks
Q1 to Q4	Practical	10	40
Q5.	Viva-voce	10	10
Total = 05	--	--	**50**

Unit-wise weightage of Marks: As per allocation of lectures

15. Equivalence in Accordance with Titles and Contents of Papers (for revised syllabus):

Sr. No.	Title of Old Paper	Title of New Paper
1	GCT-101: Principles of Geomorphology	GCT-101: Fundamentals of Geomorphology
2	GCT-104:Geography of Population and Development	GCT-104: Geography of Population and Human Resource Development
3	GCP-101: Landforms Analysis & Surveying	GCP-101: Practical in Geomorphology and Field Survey
4	GCP-102: Analysis of Climatic Data	GCP-102: Analysis of Socio-economic and Climatic Data
5	GCT-205: Advanced Geomorphology	GCT-205:Applied Geomorphology
6	GCT-206: Applied Climatology	GCT-206: Applied Climatology and Climate Change
7	GOT-208: Social and Cultural Geography	GOT-201: Social and Cultural Geography
8	GCT-207: Geography of India	GOT-202: Geography of India
9	GOT-304: Political Geography	GOT-203: Political Geography
10	GOT-408: Medical Geography	GOT-204: Geography of Health
11	GCP-306: Quantitative Techniques & Computer Application in Geography	GCP-203: Computer Application in Geography
12	GCP-203: Statistical Techniques in Geography	GCP-204: Statistical Techniques in Geography

16. Special Instructions if Any:

C) Other features

1. Intake Capacity/No. of Students

M.A/M.Sc.- I: Total Seats - 50 (including reservation as per the Govt. of Maharashtra)
M.A/M.Sc.- II: Total Seats - 50 (including reservation as per the Govt. of Maharashtra)

2. Library and Laboratory Equipment's

University and Departmental library : Books, Journals, Thesis, etc
Equipments- GPS, DGPS, Theodolite, Total Station, Weather station,etc._

D) General Guidelines – As per University Guidelines

Total Marks/Credit for M.A./M.Sc. Geography Degree:

Nature of Paper	Marks	Credit
Theory papers	1600	64
Practical papers	800	32
Total	2400	96

Semester-I

GCT-101: FUNDAMENTALS OF GEOMORPHOLOGY

Unit- 1

Meaning nature and scope of geomorphology, Development of geomorphic thought, a brief review of fundamental concepts of geomorphology: Principle of Uniformitarianism (15)

Unit- 2

Evolution of Continents and ocean basins: Continental drift theory of Taylor, Continental Drift theory of Wegener, Theory of Plate Tectonics (15)

Unit- 3

Factors controlling landform development: Endogenetic and Exogenetic forces,
Denudational processes, Weathering, Erosion and Mass wasting. (15)

Unit- 4

Mountain building activities, Geosynclinal theory of Kobber, Holms Convectional current theory, Theory of Isostasy (15)

REFERENCES:

1. Allaby, Michael (2008): Oxford Dictionary of Earth Science, Oxford University Press, New York.
2. Bloom, A.L. (1991): Geomorphology, 2nd Ed Englewood Cliffs, M.J. Prentice Hall.
3. Chorley, R.J. Schumm,S.A. & Sugden, D.E. (1985): Geomorphology, Methuen & Co. Ltd., London, New York.
4. Brierley, G.J. & Fryirs, K.A. (2005): Geomorphology and River Management, Blackwell Publishing, Oxford UK.
5. Briggs, K. (1985): Physical Geography Process and System, Hodder and Stoughton, London.
6. Christopherson, R.W. (1995): Elemental Geosystems: A Foundation in Physical Geography, Prentice Hall Englewood Cliffs, New Jersey.
7. Cook, R.U. & Doornkamp, J.C.(1974): Geomorphology in Environmental Management, an Introduction. Clarendon Press. Oxford.
8. Dayal, P. (1996): A Textbook of Geomorphology, Shukla Book Depot, Patna.
9. Fairbridge, R.W., ed. (1968): Encyclopaedia of Geomorphology Reinhold, New York.
10. Hart, M.G. (1986): Geomorphology Pure and Applied, George Allen and Unwin, London.
11. Leopold, L.B. Wolman, M.G. & Miller, J.P.(1964): Fluvial Processes in Geomorphology, W.H.Freeman, San Fransisco.
12. Lobeck, A.K. (1939): Geomorphology, McGraw Hill, New York. .
13. Moor, W.G. (1949): A Dictionary of Geography, Penguin Books, England.
14. Morgan, R.S. & Wooldridge S.W (1959): Outline of Geomorphology the Physical basis of Geography, Longmans Green, London.
15. Robinson, Harry (1969): Morphology and Landscape, University Tutorial Press Ltd. London.
16. Singh, Savindra (1998): Geomorphology, Prayag Pustak Bhavan ,Allahabad.
17. Singh, Savindra (1991): Environmental Geography, Prayag Pustak Bhavan ,Allahabad.
18. Spark, B. W. (1986): Geomorphology, Longman, London.
19. Strahler, A.N (1969): Physical Geography. John Wiley & Sons Inc., NewYork.
20. Thomas, M.F. (1974): Tropical Geomorphology, Macmillan, London.
21. Thornbury, W.D. (1969): Principles of Geomorphology, Wiley Easterrn Ltd. New Delhi.
22. Wadia, D.N. (1993): Geology of India, Tata McGraw Hill Edition, New Delhi.
23. Worcester, P. G. (1948): Textbook of Geomorphology, Princeton, D.Van, Nortran

Semester-I

GCT-102: PRINCIPLES OF CLIMATOLOGY

Unit-1

Introduction to Climatology: Significance of Climatology, Development of Modern Climatology, Origin of Atmosphere, Structure and Composition of Atmosphere, Insolation, Heat transfer-Radiation, Convection and conduction, terrestrial heat balance. (15)

Unit- 2

Moisture in the Atmosphere: Changes of state, Humidity, Humidity measurements, Stability and Instability of atmosphere, Condensation- Clouds and fogs, Precipitation - precipitation processes, types and forms. (15)

Unit-3

Motion in the Atmosphere: Air Pressure, Pressure measurement and distribution, Factors affecting wind, Pressure belts & Planetary winds, Monsoon and Local winds. (15)

Unit-4

Air Masses and Atmospheric Disturbances: Classification and modifications of Air Masses, Fronts: characteristics and types, Tropical Cyclones, Anticyclones, Thunderstorms, Tornadoes, Hurricanes, Water spouts; Application of Synoptic Climatology in pollution studies and navigation (15)

REFERENCES:

1. Byers R.H. : "General Meteorology "McGraw Hill BKCo New York 1974
2. Pettersons : "Introduction to Meteorology " ---------,,---------- 1969
3 Miller A., et, al. 1983; "Elements of Meteorology", Merrill, Columbus.
4. Sellers W.D : "Physical Climatology"University of Chicago Press. 1965
5. Trewartha G.T: An Introduction to climate "McGraw Hill BK Co. New York, 1968.
6. Das P. K. : The Mansoon, Prayag pustak Bhavan, Allahabad.
7. Shastri Rama: Weather and Weather Forecasting, Ministry & Information NBT, Delhi.
8. Lal D. S.: Climatology. Prayag pustak Bhavan, Allahabad.
9. Ramashatri: Weather & Weather forecasting, Ministry of Information & Broadcasting.
10. Savindra Sing (2000) : Climatology, Prayag Pustak Bhavan, Allahabad.
11. Mather J. R. (1975) : Climatology : Fundamentals & Applications. Mc Gray Hills, Book Co., New York.
12. Hobbs J.E. (1980) : Applied Climatology, Butterworth, London
13. Critchfield,H.J,2004 : Principles of Climatology; Prentice Hall, London.
14. Lutgens, F.K & Tarbuck, E.J (5th Ed): The Atmosphere – an introduction to meteorology. Prentice Hall, New Jersey.
15. Oliver J. E. (1973) : Climate & Mans Environment, John Wiley & Sons; New York.
16. Navarra, J. G. (1979): Atmosphere, Weather and Climate, W. B. Saunders Company, Philadelphia

Semester–I

GCT-103: ECONOMIC GEOGRAPHY

Unit-1: Economic Geography:
Nature and scope economic geography; Approaches to the study of economic geography; Basis of economic processes: Production, exchange & consumption, Classification and classification of economic activities. World economic development: problems; Special Economic Zones (15)

Unit-2: Industrial Geography:
Nature, scope and content of Industrial Geography, Principles of Industrial Location: – Profit maximization, Least cost location, Substitution, Interdependence, Territorial production complexes, Factors of Industrial Location, A. Weber & A. Losch industrial location theory, Rostows model, Industrial regionalisation; World industries: locational patterns and problems; New industrial policies (15)

Unit-3: Energy Resources:
Concept of resources, Classification of resources, World resources and their distribution; Renewable & Non-renewable energy resources, World energy situation and distribution; Sources of Energy: Coal, Oil, Natural gas and Nuclear energy, OPEC-energy crisis. (15)

Unit-4: Transportation & Trade:
Modes of transportation, Accessibility and connectivity; Interregional and Intraregional: Ullman's tried- Complementarily- Intervening Opportunity- Transferability. Growing importance of ports on national and foreign trade, Trade Policy; International Trade and Characteristics, patterns of world trade, Regional Trade blocks EEC, EFTA, & WTO. (15)

References:

1. Alexander, J.W. (1988): Economic Geography, Prentice Hall of India. New Delhi.
2. Alexanderson, G. (1967): Geography of Manufacturing, Prentice Hall of India. New Delhi.
3. Berry, Conkling & Ray (1988): Economic Geography Prentice Hall of India, New Jersey.
4. Hurst Elliott (1986): Geography of Economic Behaviour, Unwin, London.
5. Johntson, R.J. & Taylor, D.J. (1989): A World in Crisis, Basil-Blackwell, Oxford.
6. Losch, (1954): Economics of Location, Yale University Press, New York.
7. Redcliff, M. (1987): Development & the Environmental Crisis. Methuen. London.
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12. Misra R. P.: Regional Planning, Concepts, New Delhi.
13. Jones, C. F. & Darkenwald, G. G.(1954) : Economic geography,Mcmillan, New York
14. Saxena H.M. (2013): Economic Geography, Rawat Publication, Jaipur

Semester-I

GCT-104: GEOGRAPHY OF POPULATION AND HUMAN RESOURCE DEVELOPMENT

Unit-1: Concepts (15)

Nature, scope and significance of Population Geography; Sources of population data; Factors influencing population distribution and density; Population distribution patterns - World and India; Population composition and change: World / India - Demographic, Socio-Cultural, Economic, Health.

Unit-2: Population Processes (20)

Fertility-Measures and Methods of estimations, spatio-temporal variations - World / India; Mortality-Measures and Methods of estimation, spatio-temporal variations - World / India; Migration-measures and methods of estimations; Urbanization-issues, perspectives and policies - World / India.

Unit-3: Population Theories (10)

Theories of population growth: Malthus, Neo-Malthusian, Marx, Demographic Transition Model; Migration theories: Ravenstein and Everette Lee; Epidemiological Transition.

Unit-4: Population Development and Policies (15)

Population as resource, concepts of over-under-and optimum population, population and development debate, population as ecosystem, Limits to Growth, Population resource region, Human development- Approaches, Measurements and Characteristics- World, Social well-being and quality of life, Gender Equity; Population Policies-perspectives from developed and developing world, National Population Programs and Policies.

REFERENCES:

1. Barrett H.R.(1992): Population Geography, Oliver and Boyd Longman House, Harlow.
2. Bhende A., Kanitkar T. (2006): Principles of Population Studies, Himalaya Publishing House, Bombay. 18th revised.
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15. Meadow, D.H., Meadows D.L., Randers J., and Behrens W.W. III. (1973): The Limits to Growth. I Report of the Club of Rome. The New American Library, New York.
16. Meadows, D.H., Meadows, D.L. and Randers, J. (1992): Beyond the Limits. Confronting Global Collapse, Envisioning a Sustainable Future. (A sequel to The Limits to Growth). Chelsa Green Publishers, Post Mills VT, USA.
17. Newell C. (1990): Methods and Models in Demography. The Guilford Press; 1st edition.
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23. Smith,T.L (1960): Fundamental of Population Studies. Lipineott, London.
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Semester-I

GCP-101: PRACTICAL IN GEOMORPHOLOGY & FIELD SURVEYING

Unit-1

A) Methods of Representation of Relief: i) Pictorial ii) Mathematical.

B) Maps- i) Definition: ii) Types of maps iii) Indexing of Topographical sheets. Identification & Mapping of Landforms from Topographical Maps:- i) Ridge ii) Saddle iii) Col. iv) Pass v) Spur; vi) Plateau vii) Escarpment viii) Cliff ix) Waterfall x) River Terraces xi) U-shaped Valley xii) V shaped Valley. (15)

Unit-2

A) Identification & Mapping of drainage patterns: i) Dentritic; ii) Trellis; iii) Radial Drainage Patterns. B) Quantitative analysis of Channel Planform: Sinuosity Index of Straightt, Sinuous and Meandering channels ; Analysis of Cross Profiles & Longitudinal Profile of rivers. (10)

Unit-3

Drainage Basin Morphometry: Delineating Drainage Basin Perimeters, Measurement of Drainage basin area, Relief/Height (H), Perimeter Length (P), Strahler Stream Order system, Calculation of Bifurcation Ratio & Drainage density, Stream Frequency, Drainage Texture, Elongation ratio, Circularity Ratio. (15)

Unit-4

Field Surveying: (A) Definitions, uses of surveying, classification of surveying.

(B) Transit Thedolite : Concept of transiting, swinging, face left, face right and changing face; measurement of horizontal and vertical angles. Determination of horizontal distance between two inaccessible points with thedolite. Theodolite Traverse Surveying and Stadia Survey/ Tacheometry. Preparation of Contour map of small area.

(C) Total Station: Components Used in Total Station Surveying; To plot a small area using measurements taken from a Total Station. (20)

REFERENCES:

1. Davis, Peter, (1974): Science in Geography Data Description & Presentation, Vol.3, Oxford University Press, London.
2. Hanwell, J.D. & Newson, M.D. (1973): Macmillan Education Ltd., London.
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15. Goudie, A. (1990): Geomorphological Techniques, Routledge, London

Semester-I

GCP-102: ANALYSIS OF SOCIO-ECONOMIC AND CLIMATIC DATA

Unit-1: Population Data Analysis (20)

1. Fertility measures: Crude Birth Rate, General Fertility Rate
2. Mortality measures: Crude Death Rate, Infant Mortality Rate
3. Literacy measures: Crude Literacy Rate. Gross Enrolment Ratio.
4. Measures of population Growth: rates, ratios- arithematic & exponential
5. Age & Sex Pyramid: Compound and Superimposed pyramid
6. Human Development Index

Unit-2: Agricultural Data analysis (15)

1. Erogographs (Crop Calendar)
2. Crop Concentration
3. Crop Diversification
4. Crop Combination
5. Agricultural Productivity

Unit-3: Economic Data analysis (15)

1. Nearest Neighbor Analysis
2. Trade area delimitation: Breaking Point Theory, Law of Retail Gravitation
3. Flow line charts & maps of transport flows.
4. Triangular graph- tri-linear relationship among three variables.
5. Logarithmic& Semi-logarithmic graphs.
6. Location Quotient

Unit-4: Climatic Data Analysis (10)

1. Weather Signs & symbols. Reading and interpretation of weather maps of representative seasons.
2. Analysis of upper air data-Tephigram (Temperature Height diagram).
3. Comfort diagrams- Climographs. Hythergraph. Climatograph
4. Dispersion graphs: Temperature and rainfall dispersion Diagram
5. Water budget, and its graphical analysis.

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14. United Nation Development Program (UNDP) (1990): Human Development Reports (1990-2012)

Semester-II

GCT-205: APPLIED GEOMORPHOLOGY

Unit-1

Tectonism and geomorphology, Interior of the Earth, Earthquakes, Volcanoes and associated features, folding and faulting. (15)

Unit-2

Dynamic agencies of denudation and their work: Fluvial, Glacial, Coastal, Aeolian and Karst topography, Morphogenetic regions. (15)

Unit-3

Cycle of Erosion-Geographical Cycle of Davis, Penck's model of cycle of erosion. Hill Slope development, views of W.M. Davis, Walther Penck, Allen Wood and L.C. King. (20)

Unit-4

Applied Geomorphology, Anthropogenic Geomorphology, Environmental Geomorphology and recent trends in Geomorphology. (10)

REFERENCE:

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Semester-II

GCT-206: APPLIED CLIMATOLOGY AND CLIMATE CHANGE

Unit –1

Sources and types of climatic data; Impact of climate on human life, soils, agricultural activities, and health; Use of meteorological satellites for weather forecasting with special reference to India. (10)

Unit -2

Approaches to climatic classification and climatic regions; Climatic classification of Koppen, and Thornthwaite; World pattern of temperature and precipitation; Characteristics of general weather systems of India – spatial and seasonal variation of temperature, humidity, wind and precipitation; Climatic zones of India. (16)

Unit -3

Causes, impacts and society's response to change in air quality and atmospheric pollution; Causes and impacts of greenhouse gas (GHGs) emission, ozone layer depletion, and acid rain; El-nino and southern oscillation (ENSO). (12)

Unit -4

Pale climatology - climate dynamics and water balance with reference to evolution of the earth systems; General overview of the climate change – observed changes and its impacts; Recent trends of climate change and its impact on natural and human subsystems; Significant climate anomalies - notable events of recent times, extreme weather and climate; Future climate changes – risks and impacts with special reference to India; Adaptation and mitigation options of climate change. (22)

REFERENCES:

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Semester-II

GOT-201: SOCIAL AND CULTURAL GEOGRAPHY

Unit-1: Social Geography:

Philosophical bases of Social and Cultural Geography. Definition, scope, and significance of Social and Cultural Geography. Roots of Social Geography and social problem, Housing Space, Society and Poverty (15)

Unit-2: Culture and Races:

Concept of culture, culture areas and culture regions, Cultural hearths and their diffusion, World Culture Realms. Concept of race, Griffith Taylor and C.S.Coon's Theories of distribution of races of mankind in the world. Basis of racial classification and their physical characteristics. Races of India. (15)

Unit-3: Socio-cultural Diversity:

Concept of Dialects and ethnicity. Distribution of Religion, Caste, Tribe, Languages in India. Concept of social areas, Socio-Cultural diversity in India, Processes of Social changes: Modernization, Sanskritization and Globalization. (15)

Unit-4: Social Justice and Well being:

Concept of social Justice and fair society, Equality and welfare, social development and well-being. Indicators for measurement, Levels of well-being in India, Social status of women in India. (15)

References:

1. Ahmad, Aijazuddin (1999): Social Geography, Rawat Publications, Jaipur.
2. De-Blij, H.J. (1995): The Earth-An Introduction to its Physical and Human Geography, John Wiley & Sons, inc; New York.
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GOT-202: GEOGRAPHY OF INDIA

Unit-1:
India – Location & space relationship of India with neighboring countries, Physiography – Structure, relief, divisions, Natural drainage system, Problems and prospects of Interlinking of rivers, Natural vegetation; Soil types and their distributions.(15)

Unit-2:
Agriculture & live stock in India, Irrigation, Green and White Revolution, Agro-climatic zones Problems of Agricultural Development. (15)

Unit-3:
Locational factors of cotton, jute, textile, iron and steel, aluminum, fertilizer, paper, chemical and pharmaceutical, automobile, cottage and agro-based industries, Land, Water, Energy and Minerals Resources – utilization and conservation, Industrial regions of India, Transport and communication systems in India, Major ports & Sea routes. (15)

Unit-4:
Contemporary Issues: Environmental hazards-floods and droughts, landslides, earthquakes, Environmental degradation, Changes in patterns of land use, Population explosion and food security, Epidemic diseases, Problems of agrarian and Industrial unrest, Regional disparities, Globalization and India. (15)

REFERENCE:

1. Chapman, G. and Baker, K.M. (eds.) (1992): The Changing Geography of Asia. Routledge, London.
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GOT-203: POLITICAL GEOGRAPHY

Unit-1:

Definition, Nature, Scope and Significance, Approaches to Political Geography, Elements of Political Geography–Location: absolute, vicinal, maritime, size and shape, Natural resources-Food, Minerals and Power resources, Population–Race, religion and language. (15)

Unit-2:

Concept of State, Nation and Nation-State, Centripetal and Centrifugal forces in state formation, Federalism, Frontiers and boundaries, Classification of boundaries, Core and periphery relations. Concepts of Ecopolitics, Geopolitics, Geo-strategic Views: Heartland and Rimland. Mahan theory. (15)

Unit-3:

Electoral Geography – Geography of Voting, Geographic Influences on Voting pattern, Geography of Representation, Concept of Gerrymandering, World electoral scenario – USA, UK, China and Russia (15)

Unit-4:

The changing patterns of World Powers, Geopolitical Conflicts and cooperation with reference to India, Reorganization on Indian state, , Emergence of New States & their Demands, Interstate conflicts in India, Internal security Threats (15)

REFERENCES:

1. Adhikari S., 1997: Political Geography, Rawat Pub. Jaipur.
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3. Cohen S.B., 1973: Geography and Politics in a divided world. Oxford, New York.
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GOT-204: GEOGRAPHY OF HEALTH

Unit-1: Introduction (10)
Nature, scope and significance; Geographical factors affecting human health with special reference to physical, social, economic and environmental.

Unit-2: Classification of Diseases (15)
Classification of diseases: genetic, communicable and non-communicable; occupational and deficiency diseases; WHO classification of diseases, Pattern of World distribution of major diseases.

Unit-3: Human Ecology of Diseases (15)
Ecology, etiology and transmission of major diseases: cholera, malaria, tuberculosis, hepatitis, leprosy, cardiovascular, cancer, AIDS and STDS; Diffusion of diseases and its causes. Deficiency disorders and problems of mal-nutrition in India

Unit-4: Health Care (20)
Health Care - International level, with special reference to WHO, UNICEF and National level, with special reference to Government and NGOs; Availability, accessibility and utilization of health care services; Primary health care; Inequalities in health care services in India; family welfare, immunization, national disease eradication, National Family Surveys and Health for All programmes.

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Semester-II

GCP-203: Computer Applications in Geography

Unit-1:

Geographic data: data types and data structure; Computerb hardwares and softwares; Online educational resources; E-learning (15)

Unit-2:

Writing / formatting of text, graphs, tables, and references using MS word; Preparation of power point presentation using MS power point; Preparation of graphs using MS excel - bar graph, line graph, multiple line graph, scatter diagram, pie diagram, and trend line. (20)

Unit-3:

Computation of statistical parameters using MS excel; Measures of central tendency: average, median, mode, and weighted mean; Measures of position: quartiles, deciles, and percentiles; Measures of variation: range, variance, and standard deviation; Co-relation coefficient. (15)

Unit-4:

Introduction to Origin and SPSS software; Correlation and regression analysis using MS excel. (10)

References:

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GCP-204: STATISTICAL TECHNIQUES IN GEOGRAPHY

Unit-1:

Measures of central Tendency: Calculation of mean, median, mode, quartile. Measures of dispersion: Absolute measurements, Mean deviation, Quartile deviation, and Standard deviation. (15)

Unit-2:

Relative measurements-Coefficient of mean deviation, coefficient of quartile deviation, Coefficient of variations, Index variability and relative variability, Skewness: Karl Pearson's and Bowley's methods, Kurtosis (15)

Unit-3:

Correlation Analysis: Rank order correlation and Product moment correlation, Regression Analysis: linear regression, Time Series Analysis: Moving average, Least square method and drawing of line of best fit. (15)

Unit-4

Probability - normal, poisson and binomial, Test of significance: Chi-square test, Student's t-test, ANOVA-One way, two way (single entry and multiple entry) (15)

REFERENCE:

1. Cole, J.P. & King, C.A.M. (1968): Quantitative Techniques in Geography. John Wiley & sons Inc.New York.
2. Elhance, D.N. (1972): Fundamentals of statistics, Kitab Mahal, Allahabad.
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