Shiv Chhatrapati Shikshan Sanstha's

Rajarshi Shahu Mahavidyalaya, Latur

Empowered Autonomous Institution

Structure and Curriculum of Four Year Multidisciplinary Degree (Honors/Research) Programme with Multiple Entry and Exit option

Undergraduate/Postgraduate Programme of Humanities and Social Sciences

M.A in Geography

Board of Studies

in

Geography

Rajarshi Shahu Mahavidyalaya, Latur

Empowered Autonomous Institution

[PG I Year]

w.e.f. June, 2026

(In Accordance with NEP-2020)

Review Statement

The NEP Cell reviewed the Curriculum of **M.A. in Geography** to be effective from the **Academic Year 2026-27.** It was found that, the structure is as per the NEP-2020 guidelines of Govt. of Maharashtra.

Date: 13/ 04 / 2026

Place: Latur

NEP CELL

Rajarshi Shahu Mahavidyalaya, Latur

Empowered Autonomous Institution

CERTIFICATE

I hereby certify that the documents attached are the Bonafide copies of the Curriculum of **M.A. in Geography** to be effective from the **Academic Year 2026-27.**

Date: 13 / 04 / 2026

Place: Latur

Dr. Omprakash V. Shahapurkar
Chairperson
Board of Studies in Geography
Rajarshi Shahu Mahavidyalaya, Latur
Empowered Autonomous Institution

Shiv Chhatrapati Shikshan Sanstha's

Rajarshi Shahu Mahavidyalaya, Latur

Empowered Autonomous Institution

Members of Board of Studies in Geography

Under the Faculty of Humanities and Social Sciences

Sr. No.	Name	Designation	In position
01.	**Dr. Ompraksh Shahapurkar** Head, Department of Geography Rajarshi Shahu Mahavidyalaya (Autonomous), Latur	Chairperson	HoD
02.	**Dr. Sanjayadevi Pawar,** Department of Geography Smt. Sushiladevi Deshmukh Senior College, Latur	Member	V. C. Nominee
03.	**Dr. Kailas Nile,** Head, Department of Geography Pratap College, Amalner, Dist. Jalgaon.	Member	Academic Council Nominee
04.	**Dr. Madanlal Suryawanshi,** Head, Dept of Geography, Dr. Babasaheb Ambedkar Marathwada University, Chhatrapati Sambhaji Nagar.	Member	Academic Council Nominee
05.	**Hon. Shrinivas Aundhkar,** Director, MGM's APJ Abdul Kalam Astrospace Science Center and Club, Chhatrapati Sambhaji Nagar.	Member	Expert from outside for Special Course
06.	**Dr. Chetan Hulsure** Ingenuity Education and Research Istitute and Geopixel Excellence, Solapur.	Member	Expert from Industries
07.	**Dr. Dayanand Ujalambe** Prof. in Dept. of Geography, Sant. Janabai Mahavidyalaya, Gangakhed, Dist. Parbhani.	Member	P.G. Alumnus
08.	**Mr. Dattatraya Sonkamble**	Member	Faculty Member
09.	**Dr. Vijay Dalvi**	Member	Faculty Member
10.	**Dr. Kishor Shinde**	Member	Faculty Member
11	**Dr. Sandipan Hadule**	Member	Faculty Member

From the Desk of the Chairperson…

In accordance with the vision and framework of the National Education Policy (NEP-2020), the Board of Studies in Geography has designed the undergraduate (M.A.) syllabus with a strong emphasis on holistic, multidisciplinary, and student-centric learning. The curriculum is structured to promote conceptual clarity, critical thinking, experiential learning, and skill development, thereby aligning education with contemporary academic and societal needs.

The syllabus aims to sensitize students to the dynamic interactions between natural and human systems, enabling them to develop a systematic and scientific understanding of geographical processes. It incorporates modern pedagogical approaches and emphasizes the application of advanced tools and techniques to ensure precise analysis and interpretation of geographical phenomena.

A key feature of this curriculum is the integration of environmental education, focusing on critical areas such as pollution, biodiversity conservation, sustainable development, and the management of natural resources, including forests and wildlife. This aligns with NEP-2020's commitment to environmental awareness and sustainable practices.

The programme is designed to enhance students' competencies in observation, analysis, data interpretation, and spatial understanding. It encourages innovation, creativity, and problem-solving abilities through engagement with real-world geographical issues at local, regional, and global levels.

The Board of Studies in Geography at Rajarshi Shahu Mahavidyalaya (Autonomous), Latur, has collaboratively developed the Programme Specific Outcomes (PSOs), ensuring that the curriculum meets academic standards and industry relevance.

The key objectives of the programme are:

1. To enable students to identify and analyze geographical features and processes.
2. To develop practical skills through fieldwork and experiential learning.
3. To impart competencies in map-making and spatial techniques.
4. To train students in data collection, processing, and interpretation.
5. To familiarize students with modern geospatial technologies such as Remote Sensing and Geographic Information Systems (GIS).

As the Chairperson of the Board of Studies, I firmly believe that this NEP-aligned syllabus will empower students with the knowledge, skills, and values required to meet contemporary challenges and contribute meaningfully to society.

Dr. Omprakash V. Shahapurkar

Chairperson

Board of Studies in Geography

Rajarshi Shahu Mahavidyalaya, Latur

Empowered Autonomous Institution

Shiv Chhatrapati Shikshan Sanstha's

Rajarshi Shahu Mahavidyalaya, Latur

Empowered Autonomous Institution

Index

Shiv Chhatrapati Shikshan Sanstha's

Rajarshi Shahu Mahavidyalaya, Latur

Empowered Autonomous Institution

Faculty of Faculty of Humanities and Social Sciences

Structure for Four Year Multidisciplinary Undergraduate Degree Programme in Geography

Multiple Entry and Exit

(In accordance with NEP-2020)

Year Level	Sem	Major		RM	OJT/FP	RP	Cum.Cr	Marks	Degree
		Mandatory	Elective						
I 6.0	I	Major I 4C Major II 4C LC-I 2Cr (A) LC-I 2Cr(B)	MEC-I (A) OR MEC-I (B 4Cr	RMC 4 Cr	NA	NA	20 Cr	Theory: 01 Cr. = 25 M. LC 01 Cr. = 50 M.	PG Diploma (After 03 Year B.A. Degree)
	II	Major III 4Cr Major IV 4Cr LC-II 2Cr (A) LC-II 2Cr(B)	MEC-II (A) OR MEC-II (B) 4Cr	NA	FP-I 4Cr	NA	20 Cr	OJT/FP: 1Cr = 25M	
	Total	**Major 24Cr**	**MEC 04Cr**	**RMC 04 Cr**	**OJT/ FP 04 Cr**	**NA**	**40Cr**		
II 6.5	III	Major V 4Cr Major VI 4Cr LC-III 2Cr (A) LC-III 2Cr(B)	MEC-III (A) OR MEC-III (B) 4Cr	NA	NA	RP-I 4 Cr	20 Cr	RP-I & RP-II: 1Cr = 25M	PG Degree (After 03 Year UG Degree)
	IV	Major VII 4Cr Major VIII 4Cr LC-IV 2Cr (A) LC-IV 2Cr(B) Major I 4C	MEC-VI (A) OR MEC-VI (B) 4Cr	NA	NA	RP-II 6 Cr	22 Cr		
	Total	**Major 24 Cr**	**MEC 08 Cr**	**NA**	**NA**	**RP 10 Cr**	**42 Cr**		
Cum.Total of I & II Year		**Major 48 Cr**	**MEC 16 Cr**	**RMC 04 Cr**	**OJT/ FP 04 Cr**	**RP 10 Cr**	**40+42 =82 Cr**		**82 Credits**

Abbreviations:

1.	DSC	: Discipline Specific Core (Major)
2.	DSE	: Discipline Specific Elective (Major)
3.	DSM	: Discipline Specific Minor
4.	OE	: Open Elective
5.	VSEC	: Vocational Skill and Skill Enhancement Course
6.	VSC	: Vocational Skill Course
7.	SEC	: Skill Enhancement Course
8.	AEC	: Ability Enhancement Course
9.	MIL	: Modern Indian Languages
10.	IKS	: Indian Knowledge System
11.	FSRCE	: Fostering Social Responsibility & Community Engagement
12.	VEC	: Value Education Course
13.	OJT	: On Job Training
14.	FP	: Field Project
15.	CEP	: Community Engagement Programme
16.	CC	: Co-Curricular Course
17.	RP	: Research Project/Dissertation
18.	SES	: Shahu Extension Services

Shiv Chhatrapati Shikshan Sanstha's

Rajarshi Shahu Mahavidyalaya, Latur

Empowered Autonomous Institution

Faculty of Humanities and Social Science

M.A. in Geography

Year & Level	Semester	Course Code	Course Title	Credits	No. of Hrs.
6.0	I	601GEO1101	Geomorphology	4 Cr	60
		601GEO1102	Climatology	4 Cr	60
		601GEO1103	Lab Course-I (A)Geomorphology	2Cr	60
			Lab Course-II (B)Climatology	2Cr	60
		601GEO1201	Oceanography OR Geography of Tourism	4 Cr	60
		601GEO1301	Research Methodology	4 Cr	60
	Total Credits			**20**	
	II	601GEO2101	Economic Geography	4 Cr	60
		601GEO2102	Urban Geography	4 Cr	60
		601GEO2103	Political Geography OR Fundamentals of Natural Disaster	4 Cr	60
		601GEO2101	Lab Course-II (A) Geographical Statistics	2Cr	60
			Lab Course-II (B) Oceanography	2Cr	60
		601GEO2101	Field Project	4 Cr	(60)
	Total Credits			**20**	
Total Credits (Semester I & II)				**40**	

Shiv Chhatrapati Shikshan Sanstha's

Rajarshi Shahu Mahavidyalaya, Latur

Empowered Autonomous Institution

Name of the Programme : Humanities and Social Sciences

Programme Outcomes (POs) for B.A./M.A. Programme	
PO 1	**Geographical Knowledge:** Demonstrate comprehensive understanding of physical and human geography, including landforms, climate, population, and economic activities.
PO 2	**Spatial Thinking & Mapping Skills:** Apply spatial concepts using maps, globes, and modern tools like GIS and remote sensing for geographic analysis.
PO 3	**Analytical & Critical Thinking:** Analyze geographical data and interpret relationships between natural and human systems.
PO 4	**Environmental Awareness:** Understand environmental issues such as climate change, resource depletion, and sustainability, and suggest appropriate solutions.
PO 5	**Fieldwork & Research Skills:** Conduct field surveys, collect data, and prepare reports using scientific methods.
PO 6	**Use of Technology:** Utilize geographic technologies such as Geographic Information Systems (GIS), GPS, and computer-based data analysis tools.
PO 7	**Problem-Solving Ability:** Address regional and global issues like urbanization, disaster management, and rural development using geographical knowledge.
PO 8	**Communication Skills:** Present geographical information effectively through maps, charts, reports, and oral presentations.
PO 9	**Social and Cultural Awareness:** Understand cultural diversity, population dynamics, and regional disparities.
PO 10	**Employability & Lifelong Learning:** Develop skills relevant to careers in planning, environmental management, teaching, research, and continue lifelong learning.

Programme Specific Outcomes (PSOs) for M.A. in Geography	
PSO No.	After completion of this programme the students will be able to -
PSO 1	**Physical Geography Understanding** Explain geomorphological processes, climatic systems, soil formation, and biogeographical patterns.
PSO 2	**Human Geography Application** Analyze population distribution, settlement patterns, economic activities, and cultural landscapes.
PSO 3	**Cartographic & Surveying Skills** Prepare and interpret maps, charts, and diagrams using cartographic techniques and basic surveying methods.
PSO 4	**Geospatial Technology Skills** Apply tools like GIS, Remote Sensing, and GPS for spatial data collection, analysis, and interpretation.
PSO 5	**Field-Based Knowledge** Conduct fieldwork, collect primary data, and prepare field reports with practical understanding of geographical phenomena.
PSO 6	**Regional Planning & Development** Evaluate regional disparities and contribute to planning strategies for rural and urban development.
PSO 7	**Environmental Management** Assess environmental issues and suggest sustainable solutions for resource conservation and management.
PSO 8	**Disaster Management Skills** Understand types of natural and human-induced disasters and apply mitigation and management strategies.
PSO 9	**Research Orientation** Develop basic research skills including data collection, analysis, report writing, and presentation.
PSO 10	**Employability Skills** Acquire skills for careers in teaching, GIS analysis, environmental consultancy, tourism, and planning sectors.

Semester - I

Shiv Chhatrapati Shikshan Sanstha's

Rajarshi Shahu Mahavidyalaya, Latur

Empowered Autonomous Institution

Faculty of Humanities and Social Science
Department of Geography
PG I Sem I

Course Type : MMC -I
Course Title : Geomorphology
Course Code : 601GEO1101
Credits : 04 **Max. Marks: 100** **Lectures: 60 Hrs.**

Learning Objectives:

LO 1. To familiarize the students with the need for understanding of geomorphology with Reference to certain fundamental concept.
LO 2. To understand the internal and external processes of landscape evolution.
LO 3. To sensitize the students background knowledge of geology and environmental science.
LO 4. To understand concept of region, geographical region and their types.

Course Outcomes:

After completion, of course the student will be able to

CO1. Understand nature, scope and development of geomorphology.
CO2. Explain earth interior and tectonic processes.
CO3. Analyze weathering, erosion and geomorphic cycles.
CO4. interpret fluvial, Aeolian, glacial and coastal landforms.
CO5. Apply geomorphological techniques in field studies and environmental management.

Unit No.	Title of Unit & Contents	Hrs.
I	**Introduction to Geomorphology**	**15**
	i) Definition, Nature and Scope of Geomorphology ii) Development of Geomorphology iii) Fundamental Concepts in Geomorphology iv) Geological Time Scale	
	Unit Outcomes: Students will be able to: UO 1.Understand basic concepts of geomorphology. UO 2.Explain evolution and importance of geomorphology. UO 3.Interpret geological time scale.	
II	**Earth Structure and Endogenic Processes**	**15**
	i) Interior of Earth ii) Plate Tectonics & Theories (Wegner & Plate Tectonics) iii) Slow Movements – Vertical and Horizontal Movements iv) Sudden Movements – Earthquake and Volcanoes	
	Unit Outcomes: UO 1. Explain earth structure and tectonic theories. UO 2. Analyze causes of earthquakes and volcanism. UO 3. Understand crustal movements.	

Unit No.	Title of Unit & Contents	Hrs.
III	**Weathering and Mass Wasting**	**15**
	i) Mechanical Weathering ii) Chemical Weathering iii) Mass Movement iv) Slope Development	
	Unit Outcomes: Students will be able to: UO 1. Differentiate weathering processes. UO 2. Explain slope evolution. UO 3. Analyze mass wasting processes	
IV	**Geomorphic Processes and Landforms**	**15**
	i) Fluvial Processes and Landforms ii) Aeolian Processes and Landforms iii) Glacial Processes and Landforms iv) Coastal Processes and Landforms v) Karst Processes and Landforms	
	Unit Outcomes: Students will be able to: UO 1.Interpret erosional and depositional landforms. UO 2.Analyze river, wind, glacier and marine processes. UO 3.Relate geomorphic processes with environmental change	

Learning Resources:

1. Spatial Analysis in Geomorphology : Chorley, R.J., Methuen, London, 1972.
2. Encyclopedia of Geomorphology:Fairbridge, R.W, Reinholdts, New York, 1968.
3. The Origin of Landscape – A Synthesis of Geomorphology : Garner, H.F., Oxford University Pres London, 1974.
4. Weathering, Longman : Ollier, C.D., London, 1979.
5. Introduction to Geomorphology : Pitty, A.F. , Methuen, London, 1971.
6. The Dynamic Earth : Skinner, B.J. & Porter, S.C., John Wiley, New York, 1995.
7. Perspectives in Geomorphology : Sparks, H.S.(ed.), Concept, New Delhi, 1980.
8. Geomorphology : Singh, S., Prayag Publication, Allahabad, 1998.
9. Principles of Geomorphology : Thornbury, W.D., John Wiley, New York, 1960.

Internal Examination Pattern :

CAT – I : Assignments / Poster Presentation/ Model Making

CAT – II : Seminar / Group Discussion / Book Review

CAT – III :MCQ Type Exam

Mapping of POs, PSOs and COs:

COs/POs & PSOs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3	PSO4
CO1	3	2	1	1	2	1	2	1	3	2	1	1
CO2	3	3	1	2	3	1	2	1	3	3	2	1
CO3	3	3	2	2	3	2	2	1	2	3	2	2
CO4	3	3	2	2	3	3	2	1	2	3	3	2
CO5	3	3	3	3	3	3	2	2	2	2	3	3

Scale : 3 = High, 2 = Moderate, 1 = Low, 0 = No correlation.

Shiv Chhatrapati Shikshan Sanstha's

Rajarshi Shahu Mahavidyalaya, Latur

Empowered Autonomous Institution

Faculty of Humanities and Social Science
Department of Geography
PG I Sem I

Course Type : MMC -II
Course Title : Climatology
Course Code : 601GEO1102
Credits : 04 **Max. Marks: 100** **Lectures: 60 Hrs.**

Learning Objectives:

LO1. Understand the Weather and Climate Phenomenon.
LO2. Gain knowledge about Atmospheric Pressure and Winds System.
LO3. Acquire knowledge about Evaporation, Humanity and Precipitation.
LO4. Aware about global warming and climate change.

Course Outcomes:

After completion of course the student will be able to-

CO1. Understand nature, scope and development of climatology.
CO2. Explain atmospheric structure and heat balance mechanisms.
CO3. Analyze atmospheric pressure, winds and air masses.
CO4. Interpret climatic classifications and world climatic regions.
CO5. Evaluate climate change and applications of climatology in environmental studies.

Unit No.	Title of Unit & Contents	Hrs.
I	**Introduction**	**15**
	i) Meaning, Nature and Scope ii) Development of Climatology iii)Composition and Structure of Atmosphere iv)Elements of Weather and Climate	
	Unit Outcomes: Students will be able to: UO 1.Understand basic concepts of climatology. UO 2.Explain atmospheric composition and structure. UO 3.Differentiate weather and climate.	
II	**Insolation and Temperature**	**15**
	i)Solar Radiation ii)Heat Budget of Earth iii)Horizontal and Vertical Distribution of Temperature iv)Temperature Inversion	
	Unit Outcomes: students will be able to: UO 1.Explain earth-atmosphere heat balance. UO 2.Analyze temperature distribution patterns. UO 3.Understand causes and effects of inversion.	

Unit No.	Title of Unit & Contents	Hrs.
III	**Atmospheric Pressure and Winds**	**15**
	i) Atmospheric Pressure Belts ii) Planetary Winds iii) Monsoon Winds iv) Cyclones and Anticyclones v) Air Masses and Fronts	
	Unit Outcomes: Students will be able to: 1. Analyze pressure and wind systems. 2.Explain monsoon mechanism. 3.Understand cyclonic disturbances and fronts.	
IV	**Climatic Classification**	**15**
	i)Koppen's Climatic Classification ii)Thornthwaite Classification iii)World Climatic Regions iv)Climatic Regions of India	
	Unit Outcomes: Students will be able to: UO 1.Interpret climatic classification systems. UO 2.Differentiate major climatic regions.	

Learning Resources:

1. Atmosphere, Weather and Climate : Barry, R.G. and Chorley P.J., Routiedge, London and New York, 1998.
2. General Climatology : Critchfied, J.H., Prentice Hall, India, New Delhi, 1993.
3. Monsoons : Das, P.K., National Book Trust, New Delhi, 1987.
4. Climatology: Lal, D.S. , ShardaPustakBhavan, Allahabad.
5. Introduction to Meteorology : Peterson, S. , McGraw hill book, London, 1969.
6. Contemporary Climatology : Robinson, P.J. and Henderson S., Henlow, 1999.
7. Applied Climatology : Thompson, R.D. and Perry, A. (ed.), Principles and Practice, Routledge, London, 1997.
8. हवामानशास्त्र आणि सागर विज्ञान : शेटे ,एस .टी:, अभिजित पब्लिकेशन ,लातूर.

Internal Examination Pattern :

CAT – I : Assignments / Poster Presentation/ Model Making

CAT – II : Seminar / Group Discussion / Book Review

CAT – III :MCQ Type Exam

Mapping of POs, PSOs and COs:

COs/POs & PSOs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3	PSO4
CO1	3	2	1	1	2	1	2	1	3	2	1	1
CO2	3	3	2	2	3	1	2	1	3	3	2	2
CO3	3	3	2	2	3	2	2	1	2	3	2	2
CO4	3	3	2	2	3	2	2	1	2	3	3	2
CO5	3	3	3	3	3	3	2	2	2	2	3	3

Scale : 3 = High, 2 = Moderate, 1 = Low, 0 = No correlation.

Shiv Chhatrapati Shikshan Sanstha's

Rajarshi Shahu Mahavidyalaya, Latur

Empowered Autonomous Institution

Faculty of Humanities and Social Science

Department of Geography

PG I Sem I

Course Type : Lab Course –I (A)
Course Title : Geomorphology Practical
Course Code : 601GEO1103
Credits : 02 **Max. Marks:50** **Lectures: 60 Hrs.**

Learning Objectives:

LO1. To develop practical knowledge of geomorphological techniques and terrain analysis.
LO2. To understand interpolation and slope analysis methods in geography.
LO3. To train students in preparation and interpretation of profiles and isolines.
LO4. To develop skills in topographical map reading and drainage analysis.
LO5. To apply geomorphological techniques in regional and environmental studies.

Course Outcomes:

After completion, of course the student will be able to

CO1 Understand interpolation techniques and preparation of isolines and relief profiles.
CO2 Prepare and interpret various cross profiles and slope measurements.
CO3 Apply different methods of slope analysis and morphometric techniques.
CO4 Read and interpret topographical maps and drainage patterns effectively.
CO5 Develop practical and analytical skills in geomorphological studies and terrain interpretation

Unit No.	Title of Unit & Contents	Hrs.
I	**Interpolation**	**15**
	i) Interpolation ii) Isolines :A)Contour B)Isobar C)Isohyet D)Isotherm iii) Drawing Isolines Using a Technique of Interpolation iv) Construction of Relief Profile Based on the Contours	
	Unit Outcomes: UO 1. Students will be able to understand interpolation techniques, draw and interpret different isolines, and construct relief profiles using contour data.	
II	**Cross Profile**	**15**
	i) Cross Profile-Topographical, Profile of Slope, Cross Section of Landforms ii) Profile –Serial, Superimposed, Projected Composite iii) Types of Slopes iv) Slope- Methods of measurements of slopes i) Degree ii) Gradient iii) Percentage iv) Mills	
	Unit Outcomes:	

	UO 1. Students will be able to prepare and interpret different types of cross profiles and slope measurements using various geomorphological techniques.	
III	**Methods of slope analysis**	**15**
	i) C.K. Wentworth's method ii) G.H.Smith' Method iii) Robinson's Dot method iv)Morphometric Analysis of Drainage Basin	
	Unit Outcomes: UO 1. Students will be able to apply different methods of slope analysis and perform morphometric analysis of drainage basins.	
IV	**Toposheet Reading**	**15**
	i)Marginal Information ii)Grid Referencing iii)Interpretation of Relief iv) Interpretation of Drainage	
	Unit Outcomes: Students will be able to: UO 1. Students will be able to read and interpret topographical maps using marginal information, grid references, relief, and drainage patterns.	

Learning Resources:

1	Savindra Singh	*Geomorphology*	Profiles, slope analysis, geomorphic methods (pp. 120–210)
2	W.D. Thornbury	*Principles of Geomorphology*	Relief analysis, slope development, geomorphic techniques (pp. 85–170)
3	V.S. Kale & A. Gupta	*Introduction to Geomorphology*	Topographical interpretation and slope methods (pp. 95–160)
4	R.L. Singh & Rana P.B. Singh	*Elements of Practical Geography*	Profile drawing and practical cartography (pp. 45–110)
5	Gopal Singh	*Map Work and Practical Geography*	Toposheet interpretation and slope measurements (pp. 60–140)
6	D.S. Lal	*Climatology*	Climatic data representation, isolines, climatographs (pp. 150–260)
7	Critchfield H.J.	*General Climatology*	Weather data diagrams and climatic interpretation (pp. 180–275)
8	Barry R.G. & Chorley R.J.	*Atmosphere, Weather and Climate*	Wind rose, rainfall analysis, climatic graphs (pp. 90–210)
9	Sharma R.C. & Vatal M.	*Oceanography for Geographers*	Ocean floor mapping, tides and currents (pp. 110–240)
10	D.S. Lal	*Oceanography*	Marine resources, salinity and temperature analysis (pp. 95–220)
11	Thurman H.V.	*Essentials of Oceanography*	Oceanographic interpretation and marine processes (pp. 70–190)

12	Monkhouse F.J. & Wilkinson H.R.	*Maps and Diagrams*	Graphical and diagrammatic representation techniques (pp. 35–120)
13	Singh L.R.	*Fundamentals of Practical Geography*	Field survey and environmental report preparation (pp. 140–230)
14	Strahler A.N. & Strahler A.H.	*Modern Physical Geography*	Physical geography practical applications (pp. 200–350)
15	G.C. Leong	*Certificate Physical and Human Geography*	Climatology, geomorphology and oceanography basics (pp. 40–220)

Internal Examination Pattern :

CAT – I : Attendance (5 Marks)

CAT – II : Record Book Certifications (10 Mark)

CAT – III :Performance (10 Mark)

Mapping of POs, PSOs and COs:

COs/POs & PSOs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3	PSO4
CO1	3	2	3	2	1	1	1	1	3	2	2	1
CO2	2	3	3	3	2	1	1	1	3	3	2	2
CO3	3	3	2	2	2	1	1	1	3	3	3	2
CO4	3	2	3	3	1	1	2	1	3	2	3	2
CO5	2	2	3	3	3	2	2	2	3	3	3	3

Scale : 3 = High, 2 = Moderate, 1 = Low, 0 = No correlation.

Shiv Chhatrapati Shikshan Sanstha's

Rajarshi Shahu Mahavidyalaya, Latur

Empowered Autonomous Institution

Faculty of Humanities and Social Science

Department of Geography

PG I Sem I

Course Type : Lab Course –I (B)
Course Title : Climatology Practical
Course Code :
Credits : 02 **Max. Marks:50** **Lectures: 60 Hrs.**

Learning Objectives:

LO1. To develop practical knowledge of meteorological instruments and weather observation techniques.
LO2. To understand methods of climatic data representation and interpretation.
LO3. To train students in weather map analysis and atmospheric interpretation.
LO4. To develop field survey and environmental observation skills.
LO5. To apply climatological techniques in environmental and regional studies.

Course Outcomes:

After completion of course the student will be able to

CO1 Understand meteorological instruments and methods of weather observation.
CO2 Represent and interpret climatic data using various cartographic techniques.
CO3 Analyze synoptic weather maps, pressure systems, and atmospheric conditions.
CO4 Conduct field observations and prepare scientific environmental reports.
CO5 Apply climatological practical knowledge in environmental management and geographical studies.

Unit No.	Title of Unit & Contents	Hrs.
I	**Weather Instrument and Observation**	**15**
	i) Study of Metrological Instrument ii) Measurement of Temperature, Rainfall and Humidity iii) Recording Weather Observation iv) Preparation of Weather Observation Tables	
	Unit Outcomes: UO 1. Students will be able to understand meteorological instruments and record weather observations accurately.	
II	**Representation of Climatic Data**	**15**
	i) Drawing of Isolines ii) Ergograph iii) Climatograph, Rainfall dispersion diagram **iv)** Wind rose, Star diagram	
	Unit Outcomes:	

	UO 1. Students will be able to represent and interpret climatic data using graphical and cartographic techniques.	
III	**Weather Map Interpretation**	**15**
	i)Interpretation of Synoptic Weather Map ii)Study of Pressure Systems iii)Wind Direction and Velocity Analysis iv)Identification of Fronts and cyclones	
	Unit Outcomes: Students will be able to: **UO1.** Students will be able to analyze weather maps and interpret atmospheric conditions and pressure systems	
IV	**Field Work and Practical Applications**	**15**
	i)Field Observation Techniques ii)Environmental Survey iii)Preparation of Field Report iv) Practical Applications in Environmental Management	
	Unit Outcomes: Students will be able to: UO 1. Students will be able to conduct climatological field surveys and apply practical knowledge in environmental studies.	

Learning Resources:

1	Savindra Singh	*Geomorphology*	Profiles, slope analysis, geomorphic methods (pp. 120–210)
2	W.D. Thornbury	*Principles of Geomorphology*	Relief analysis, slope development, geomorphic techniques (pp. 85–170)
3	V.S. Kale & A. Gupta	*Introduction to Geomorphology*	Topographical interpretation and slope methods (pp. 95–160)
4	R.L. Singh & Rana P.B. Singh	*Elements of Practical Geography*	Profile drawing and practical cartography (pp. 45–110)
5	Gopal Singh	*Map Work and Practical Geography*	Toposheet interpretation and slope measurements (pp. 60–140)
6	D.S. Lal	*Climatology*	Climatic data representation, isolines, climatographs (pp. 150–260)
7	Critchfield H.J.	*General Climatology*	Weather data diagrams and climatic interpretation (pp. 180–275)
8	Barry R.G. & Chorley R.J.	*Atmosphere, Weather and Climate*	Wind rose, rainfall analysis, climatic graphs (pp. 90–210)
9	Sharma R.C. & Vatal M.	*Oceanography for Geographers*	Ocean floor mapping, tides and currents (pp. 110–240)
10	D.S. Lal	*Oceanography*	Marine resources, salinity and temperature analysis (pp. 95–220)
11	Thurman H.V.	*Essentials of Oceanography*	Oceanographic interpretation and marine processes (pp. 70–190)

12	Monkhouse F.J. & Wilkinson H.R.	*Maps and Diagrams*	Graphical and diagrammatic representation techniques (pp. 35–120)
13	Singh L.R.	*Fundamentals of Practical Geography*	Field survey and environmental report preparation (pp. 140–230)
14	Strahler A.N. & Strahler A.H.	*Modern Physical Geography*	Physical geography practical applications (pp. 200–350)
15	G.C. Leong	*Certificate Physical and Human Geography*	Climatology, geomorphology and oceanography basics (pp. 40–220)

Internal Examination Pattern :

CAT – I : Attendance (5 Marks)

CAT – II : Record Book Certifications (10 Mark)

CAT – III :Performance (10 Mark)

Mapping of POs, PSOs and COs:

COs/POs & PSOs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3	PSO4
CO1	3	2	3	2	1	1	2	1	3	2	2	1
CO2	2	3	3	2	2	1	2	1	3	3	2	1
CO3	3	3	2	2	2	1	3	2	3	2	3	2
CO4	2	2	2	3	3	2	2	2	2	2	3	3
CO5	3	3	3	3	3	2	3	3	3	3	3	3

Scale : 3 = High, 2 = Moderate, 1 = Low, 0 = No correlation.

Shiv Chhatrapati Shikshan Sanstha's

Rajarshi Shahu Mahavidyalaya, Latur

Empowered Autonomous Institution

Faculty of Humanities and Social Science
Department of Geography
PG I Sem I

Course Type : MEC-I
Course Title : Oceanography
Course Code : 601GEO1201
Credits : 04 **Max. Marks: 100** **Lectures: 60 Hrs.**

Learning Objectives:

LO1. To introduce the nature, scope and significance of oceanography.
LO2. To understand the physical, chemical and biological characteristics of oceans.
LO3. To analyze oceanic processes such as waves, tides and currents.
LO4. To develop knowledge regarding marine resources and ocean environment.
LO5. To understand the role of oceans in climate change and environmental management

Course Outcomes:

After completion of course the student will be able to

CO1. Understand the fundamental concepts and scope of oceanography.
CO2. Analyze the physical and chemical properties of ocean water.
CO3. Explain oceanic movements including waves, tides and currents.
CO4. Interpret marine resources and ocean ecosystems.
CO5. Evaluate ocean-related environmental issues and climate change impacts

Unit No.	Title of Unit & Contents	Hrs.
I	**Introduction to oceanography**	**15**
	i)Meaning, Nature and Scope of Oceanography ii)Origin and Evolution of Oceans iii)Distribution of Land and Water iv)Relief Features of Ocean Bottom	
	Unit Outcomes: UO 1. Understand the basic concepts and development of oceanography. UO 2. Explain the origin and relief features of ocean basins. UO 3. Interpret the global distribution of oceans and seas.	
II	**Physical and Chemical Properties of Oceans**	**15**
	i) Temperature of Ocean Water ii) Salinity of Ocean Water iii) Ocean Deposits iv) Coral Reefs	
	Unit Outcomes: UO 1. Analyze temperature and salinity distribution in oceans. UO 2. Understand marine deposits and coral reef formation. UO 3. Explain physical and chemical characteristics of ocean water	

III	**Ocean Dynamics**	**15**
	i) Waves ii) Tides iii) Ocean Currents iv) El Niño and La Niña	
	Unit Outcomes: UO 1. Explain the causes and types of oceanic movements. UO 2. Interpret the effects of tides and ocean currents. UO 3. Analyze global climatic phenomena related to oceans.	
IV	**Marine Resources and Environmental Issues**	**15**
	i) Marine Resources ii) Ocean Pollution iii) Ocean and Climate Change iv) Applied Oceanography	
	Unit Outcomes: UO 1. Understand marine resources and their utilization. UO 2. Analyze causes and impacts of ocean pollution. UO 3. Apply oceanographic knowledge in environmental management.	

Learning Resources:

1	Sharma R.C. & Vatal M.	*Oceanography for Geographers*	Ocean floor, tides, currents (pp. 110–240)
2	D.S. Lal	*Oceanography*	Temperature, salinity, marine resources (pp. 95–220)
3	Thurman H.V.	*Essentials of Oceanography*	Oceanic processes and marine environment (pp. 70–190)
4	Garrison T.	*Oceanography: An Invitation to Marine Science*	Ocean dynamics and climate (pp. 100–260)
5	Strahler A.N. & Strahler A.H.	*Modern Physical Geography*	Oceanography and environmental studies (pp. 250–390)
6	Savindra Singh	*Physical Geography*	Ocean bottom relief and oceanic circulation (pp. 220–340)
7	King C.A.M.	*Oceanography for Geographers*	Ocean currents and coastal processes (pp. 90–210)
8	Gross M.G.	*Oceanography: A View of the Earth*	Marine ecosystem and ocean environment (pp. 150–300)
9	Pinet P.R.	*Invitation to Oceanography*	Marine resources and pollution (pp. 175–320)
10	G.C. Leong	*Certificate Physical and Human Geography*	Basic oceanography concepts (pp. 140–240)

Internal Examination Pattern :

CAT – I : Assignments / Poster Presentation/ Model Making

CAT – II : Seminar / Group Discussion / Book Review

CAT – III :MCQ Type Exam

Mapping of POs, PSOs and COs:

COs/POs & PSOs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3	PSO4
CO1	3	2	1	1	2	1	2	1	3	2	1	1
CO2	3	3	2	2	3	1	2	1	3	3	2	2
CO3	3	3	2	2	3	2	2	1	2	3	2	2
CO4	3	3	2	2	3	2	2	1	2	3	3	2
CO5	3	3	3	3	3	3	2	2	2	2	3	3

Scale : 3 = High, 2 = Moderate, 1 = Low, 0 = No correlation.

Shiv Chhatrapati Shikshan Sanstha's

Rajarshi Shahu Mahavidyalaya, Latur

Empowered Autonomous Institution

Faculty of Humanities and Social Science
Department of Geography
PG I Sem I

Course Type : MEC-II (B)
Course Title : Geography of Tourism OR
Course Code : 601GEO1201
Credits : 04 Max.Marks:100 Hours: 60

Learning Objectives:

LO 1. Contextualize tourism within broader physical, cultural, environmental, and economic dimensions of society.
LO 2. Critique tourism practices for their implications locally and globally.
LO 3. Interpret and evaluate tourism as a phenomenon and as a business system
LO 4. Plan, lead, organize and control resources for effective and efficient tourism

Course Outcomes:

After completion of course the student will be able to

CO 1. To elucidate the basic concepts, and assess different forms of tourism
CO 2. To identify role of geography along with economic, social, and environmental importance of tourism industry
CO 3. To provide skills in terms of tourism management, environmental preservation, and conservation

Unit No.	Title of Unit & Contents	Hrs.
I	**Nature and Scope of Tourism Geography**	**15**
	i) Meaning, Nature and Scope of Tourism Geography ii) Types of Tourism iii) Factors Affecting Tourism iv) Tourism and Geography	
	Unit Outcomes: UO 1. Understand the concepts and significance of tourism geography. UO 2. Differentiate various types of tourism. UO 3. Explain geographical factors influencing tourism.	
II	**Tourism Resources and Infrastructure**	**15**
	i) Natural Tourism Resources ii) Cultural and Historical Tourism Resources iii) Tourism Infrastructure iv) Tourism Circuits and Destinations	
	Unit Outcomes: UO 1. Identify various tourism resources and destinations. UO 2. Analyze tourism infrastructure and facilities. UO 3. Interpret tourism circuits and regional tourism development.	
III	**Tourism Planning and Development**	**15**

Unit No.	Title of Unit & Contents	Hrs.
	i) Tourism Planning ii) Sustainable Tourism Development iii) Eco-Tourism iv) Role of Government and Tourism Organizations	
	Unit Outcomes: UO 1. Understand tourism planning principles and strategies. UO 2. Explain sustainable tourism and eco-tourism concepts. UO 3. Analyze the role of tourism organizations in development.	
IV	**Tourism Impacts and Contemporary Issues**	**15**
	i) Economic Impacts of Tourism ii) Socio-Cultural Impacts of Tourism iii) Environmental Impacts of Tourism iv) Contemporary Issues in Tourism	
	Unit Outcomes: UO 1. Analyze socio-economic impacts of tourism. UO 2. Evaluate environmental issues related to tourism. UO 3. Apply geographical knowledge in tourism management.	

Learning Resources:

1. "Principles of Tourism": Swain and Mishra (2011), Oxford University Press, New Delhi
2. "Tourism Development: Principles and Strategies,: A.K.Bhatia,(2012) ,Sterling Publishers, New Delhi
3. An Introduction to the Geography of Tourism, : Velvet Nelson (2013) –Rowman & Littlefield Publishers
4. "Fundamentals of Travel and Tourism": Ballabh, A (2005), , Akansha Publishing House, NewDelhi
5. "Tourism Systems": Mill, and Morisson, (2006), Kendal Publications, Dubuque.
6. Tourism Geography : Stephen Williams (1998) –, Routledge, London
7. Tourism Management : P.C.Sinha, (2010), Anmol Publications Private, Ltd
8. Tourism Management : Romila Chawla,(2003), Sonali Publications Private, Ltd.
9. Tourism Management : Parul Gupta, (2011), Global India Publications Private, Ltd
10. Tourism Geography : Dixit N.K. (2010), Vista International Publishing
11. An Introduction to the Geography of Tourism : Velvet Nelson (2013), Rowman & Littlefield
12. Tourism Dimensions : S K Tiwari (1994), Atmaram Publisher New-Delhi.
13. A Geography of Tourism : Robinson H (1996), Macdonald and Evans- Londan.

Websites:

1. https://tourism.gov.in/
2. https://www.incredibleindia.org/content/incredibleindia/en.html
3. https://www.karnatakatourism.org/
4. https://saathi.qcin.org/
5. https://nidhi.nic.in/HotelDivision/Default.aspx

Internal Examination Pattern :

CAT – I : Assignments / Poster Presentation/ Model Making

CAT – II : Seminar / Group Discussion / Book Review

CAT – III :MCQ Type Exam

Mapping of POs, PSOs and COs:

COs/POs & PSOs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3	PSO4
CO1	3	2	1	1	2	1	2	1	3	2	1	1
CO2	3	3	2	2	3	2	2	1	3	3	2	2
CO3	3	3	2	2	3	2	2	1	2	3	3	2
CO4	3	3	2	2	3	2	2	1	2	3	3	2
CO5	3	3	3	3	3	3	2	2	2	2	3	3

Scale : 3 = High, 2 = Moderate, 1 = Low, 0 = No correlation.

Shiv Chhatrapati Shikshan Sanstha's

Rajarshi Shahu Mahavidyalaya, Latur

Empowered Autonomous Institution

Faculty of Humanities and Social Science

Department of Geography

PG I Sem I

Course Type : RM
Course Title : Research Methodology
Course Code : 601GEO1301
Credits : 04 Max.Marks:100 Hours:60

Learning Objectives:

LO1. To introduce the concepts, nature and significance of research in geography.
LO2. To understand various research methods, techniques and tools used in geographical studies.
LO3. To develop knowledge regarding data collection, sampling and analysis methods.
LO4. To enhance skills in report writing, interpretation and presentation of geographical research.
LO5. To develop scientific attitude and research ethics among students.

Course Outcomes:

After completion of the course the student will be able to:

CO1 Understand the basic concepts, types and significance of research methodology in geography.
CO2 Explain methods of data collection, sampling and hypothesis formulation.
CO3 Apply statistical and cartographic techniques in geographical research.
CO4 Interpret and analyze geographical data scientifically.
CO5 Prepare research reports and dissertations following research ethics and scientific methods.

Unit No.	Title of Unit & Contents	Hrs.
I	**Introduction to Research Methodology**	**15**
	i) Meaning, Nature and Scope of Research ii) Types of Research iii) Research Problems and Hypothesis iv) Research Design	
	Unit Outcomes: UO 1. Understand the concepts and importance of geographical research. UO 2. Differentiate various types of research and research designs. UO 3. Formulate research problems and hypotheses scientifically.	
II	**Methods of Data Collection and Sampling**	**15**
	i)Primary and Secondary data ii)Methods of Data Collection iii)Sampling Techniques iv) Questionnaire and Schedule Preparation	
	Unit Outcomes: UO 1. Explain methods of geographical data collection. UO 2. Understand sampling methods and survey techniques. UO 3. Prepare questionnaires and schedules for field research.	
III	**Data Analysis and Cartographic Techniques**	**15**

Unit No.	Title of Unit & Contents	Hrs.
	i) Statistical Methods in Geography ii) Measures of Central Tendency and Dispersion iii) Correlation and Regression iv) Cartographic Representation of Data	
	Unit Outcomes: UO 1. Apply statistical techniques in geographical research. UO 2. Interpret geographical data using quantitative methods. UO 3. Represent data through maps, diagrams and graphs.	
IV	**Research Report Writing and Ethics**	**15**
	i)Structure of Research Report ii)Citation and Referencing Methods iii)Research Ethics and Plagiarism iv) Dissertation and Project Report Writing	
	Unit Outcomes: UO 1. Prepare research reports and dissertations systematically. UO 2. Apply citation and referencing styles correctly. UO 3. Understand research ethics and plagiarism issues.	

Learning Resources:

1	R.P. Misra	*Research Methodology: A Handbook*	Research concepts and methods (pp. 20–180)
2	Kothari C.R.	*Research Methodology: Methods and Techniques*	Research design and data analysis (pp. 50–320)
3	Wilkinson & Bhandarkar	*Methodology and Techniques of Social Research*	Sampling and survey methods (pp. 70–250)
4	Gregory S.	*Statistical Methods and the Geographer*	Statistical techniques in geography (pp. 90–280)
5	Mahmood A.	*Statistical Methods in Geographical Studies*	Quantitative techniques and analysis (pp. 60–240)
6	Yeates M.	*An Introduction to Quantitative Analysis in Human Geography*	Correlation and regression (pp. 100–260)
7	Monkhouse F.J. & Wilkinson H.R.	*Maps and Diagrams*	Cartographic representation techniques (pp. 35–150)
8	Kumar Ranjit	*Research Methodology*	Research process and report writing (pp. 40–290)
9	Creswell J.W.	*Research Design*	Qualitative and quantitative approaches (pp. 80–270)
10	Gupta S.P.	*Statistical Methods*	Statistical applications and interpretation (pp. 100–350)

Internal Examination Pattern :

CAT – I : Assignments / Poster Presentation/ Model Making

CAT – II : Seminar / Group Discussion / Book Review

CAT – III :MCQ Type Exam

Mapping of POs, PSOs and COs:

COs/POs & PSOs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3	PSO4
CO1	3	2	1	2	2	1	2	1	3	2	1	1
CO2	3	3	2	3	3	2	2	1	2	3	2	2
CO3	3	3	3	3	3	3	2	1	2	3	3	3
CO4	3	3	3	3	3	2	2	1	2	3	3	2
CO5	3	3	2	3	3	3	2	2	2	2	3	3

Scale : 3 = High, 2 = Moderate, 1 = Low, 0 = No correlation.

Semester - II

Shiv Chhatrapati Shikshan Sanstha's

Rajarshi Shahu Mahavidyalaya, Latur

Empowered Autonomous Institution

Faculty of Humanities and Social Science
Department of Geography
PG I Sem II

Course Type : MMC- III
Course Title : Economic Geography
Course Code : 601GEO2101
Credits : 04 **Max.Marks :100** **Hours: 60**

Learning Objectives:

After completion of the course, students will be able to:

LO1. Understand economic activities from geographical perspectives.
LO2. Analyze resource utilization and sustainability.
LO3. Interpret industrial and agricultural regional patterns.
LO4. Evaluate economic development and globalization trends

Course Outcomes:

After completion of course the student will be able to

CO1. Explain the concepts and approaches of Economic Geography.
CO2. Analyze the spatial distribution of resources and agriculture.
CO3. Evaluate industrial development and location theories.
CO4. Interpret trade, transport and globalization in economic development

Unit No.	Title of Unit & Contents	Hrs.
I	**Introduction to Economic Geography**	15
	i) Meaning, Nature and Scope of Economic Geography ii) Approaches in Economic Geography iii) Concepts: 1.Economic Landscape 2.Economic Regions 3.Resource Regions iv) Determinants of Economic Activities 1. Relation of Economic Geography with other discipline	
	Unit Outcomes: Students will be able to: UO 1.Understand the foundation of Economic Geography. UO 2.Explain major approaches and concepts. UO 3.Identify factors influencing economic activities	
II	**Resources and Agricultural**	15
	i) Classification and Distribution of Resources ii) Resource Conservation and Sustainable Development iii) Factors Affecting Agriculture v) Green Revolution in India	
	Unit Outcome: Students will: 1.Analyze resource distribution.	

Unit No.	Title of Unit & Contents	Hrs.
	2.Understand agricultural systems.	
III	**Industrial Geography**	15
	i) Concept and Classification of Industries ii) Weber's Theory of Industrial Location iii) Major Industrial Regions: A)India B)World iv) Small Scale and Large Scale Industries	
	Unit Outcomes: **Students will:** 1.Explain industrial location theories. 2.Analyze industrial regional development.	
IV	**Trade, Transport and Globalization**	15
	i) Role of Transport and Communication ii) International Trade: A)Concepts B)Balance of Trade iii) Regional Economic Development iv) Liberalization, Privatization and Globalization (LPG	
	Unit Outcomes: Students will: UO 1.Understand trade and transport systems.	

Learning Resources:

1. Alexander, J.W. – *Economic Geography*
2. Hartshorne & Alexander – *Economic Geography*
3. Wheeler, J.O. – *Economic Geography*
4. Singh, Jasbir & Dhillon – *Agricultural Geography*
5. Hoover, E.M. – *Location Theory and Economic Activity*
6. Haggett, Peter – *Geography: A Modern Synthesis*
7. Khullar, D.R. – *India: A Comprehensive Geography*
8. Sharma, T.C. & Coutinho – *Economic and Commercial Geography of India*
9. Gopal Singh – *Economic Geography of India*
10. Mamoria & Saxena – *Economic Geography*

Internal Examination Pattern :

CAT – I : Assignments / Poster Presentation/ Model Making
CAT – II : Seminar / Group Discussion / Book Review
CAT – III :MCQ Type Exam

Mapping of POs, PSOs and COs:

COs/POs & PSOs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3	PSO4
CO1	3	2	1	1	1	0	1	1	3	2	1	1
CO2	3	3	2	2	2	1	2	1	3	3	2	1
CO3	3	3	2	3	2	2	2	1	3	3	2	2
CO4	3	3	2	3	3	2	3	2	3	3	3	2
CO5	3	3	3	3	3	2	3	2	3	3	3	3

Scale : 3 = High, 2 = Moderate, 1 = Low, 0 = No correlation.

Shiv Chhatrapati Shikshan Sanstha's

Rajarshi Shahu Mahavidyalaya, Latur

Empowered Autonomous Institution

Faculty of Humanities and Social Science
Department of Geography
PG I Sem II

Course Type : MMC- IV
Course Title : Urban Geography
Course Code : 601GEO2102
Credits : 04 **Max. Marks. 100** **Lectures: Hrs. 60**

Learning Objectives:

LO1. Understand the process of urbanization and origin, growth and classification of urban settlements with relevant theories and models.
LO2. Examine the changing economic base and structure of the contemporary cities.
LO3. Relate urbanization process and the evolution of urban system.
LO4. Examine the contemporary urban issues and suggest new urban planning and urban policy perspectives

Course Outcomes:

After completion of course the student will be able to

CO1. Understand the basic concepts and theories in the field of urban geography
CO2. Better sense of the elements that constitute urban systems.
CO3. Know the political, economic, and technological forces shaping the development of urban systems.
CO4. Understand the social processes associated with creating order and disorder in the urban environment.

Unit No.	Title of Unit & Contents	Hrs.
I	**Introduction**	15
	1. Meaning, Nature and Scope of Urban Geography. 2. Significance of the Study of the Urban Geography. 3. Attributes of Urban Places During Ancient, Medieval and Modern Periods. 4. Factors Affecting Urban Development	
	Unit Outcomes: UO 1. Understand the nature & Scope of Urban Geography.	
II	**Urbanization**	15
	1. Process of Urbanization- From Early Period to Modern and 20th Century Trends of Urbanization. 2. Concept of City Region, Rural-Urban Fringe, Urban Sprawl and Ribbon Corridor. 3. Megalopolis, Conurbation, Rank Size Rule, Primate City, Central Business District. 4. Concept of Hinterland and Umland.	
	Unit Outcomes: UO 1. Know the Process of Urbanization.	

Unit No.	Title of Unit & Contents	Hrs.
III	**Theories and Landuse Models**	15
	1. Central Place Theory of Christaller. 2. Theory of Peroux and Boudeville. 3. Concentric Zone Model of E.W. Burgess. 4. Sector Model of Homer Hoyte. 5. Multiple Nuclei Model of Harris and Ullman.	
	Unit Outcomes: UO 1. Understand the Theories & Landuse Models.	
IV	**Contemporary Issues**	15
	i) Housing and Slum Problems ii) Urban Pollution and Environmental Issues iii) Urban Transport and Traffic Problems iv)Sustainable Urban Development	
	Unit Outcomes: UO 1. Familiar the Contemporary Issues.	

Learning Resources:

1. The Study of Urban Geography Carter:, Edward Arnold Publishers, London, 1972.
2. City and Region: Dickinson, R.E. :, Routledge, London, 1964.
3. Urban Research Methods: Gibbs J.P. :, D. Van Nostrand Co. Inc. Princeton, New Jersey, 1961.
4. Urban and Regional Planning: Hall P. :, Routledge, London, 1992.
5. The Study of Urbanisation: Hauser, P.E. and Schnore Leo F. (ed.):, Wiley, New York, 1965.
6. Culture and Cities: Mumford, L., McMillan & Co., London, 1958.

Internal Examination Pattern :

CAT – I : Assignments / Poster Presentation/ Model Making
CAT – II : Seminar / Group Discussion / Book Review
CAT – III :MCQ Type Exam

Mapping of POs, PSOs and COs:

COs/POs & PSOs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3	PSO4
CO1	3	2	1	1	1	1	1	1	3	2	1	1
CO2	3	3	2	2	2	1	2	1	3	3	2	1
CO3	3	3	2	3	2	2	3	2	3	3	3	2
CO4	3	3	3	3	3	2	3	3	3	3	3	3
CO5	3	3	3	3	3	3	3	3	3	3	3	3

Scale : 3 = High, 2 = Moderate, 1 = Low, 0 = No correlation.

Shiv Chhatrapati Shikshan Sanstha's

Rajarshi Shahu Mahavidyalaya, Latur

Empowered Autonomous Institution

Faculty of Humanities and Social Science
Department of Geography
PG I Sem II

Course Type : LC-II (A)
Course Title : Lab Course-II
Course Code : 601GEO2101
Credits : 02 **Max.Marks:50** **Hours: 60**

Learning Objectives:

LO1. Students will create graphical presentations of frequency distribution using histogram, frequency polygon, ogive curve, and other graphical techniques.

LO2. Students will create and apply measures of deviation and correlation for statistical analysis and interpretation.

LO3. Students will create analytical interpretations using Chi-square test, regression equations, regression lines, weather station models, and Koppen climatic classification.

LO4. Students will create and interpret weather maps, topographical maps, cartographic techniques, and geographical models.

Course Outcomes:

After completion of course the student will be able to

CO1. Students will create and interpret graphical frequency diagrams and statistical presentations effectively.

CO2. Students will create statistical interpretations using quartile deviation, mean deviation, standard deviation, and correlation methods.

CO3. Students will create and analyze statistical and climatological models using Chi-square and regression techniques.

CO4. Students will create cartographic representations and interpret geographical models and maps effectively.

Unit No.	Title of Unit & Contents	Hrs.
I	**Graphical Presentation of Frequency**	30
	i) Histogram ii) Frequency Polygon iii) Ogive Curve iv) Graphical Representation of Frequency Distribution	
	Unit Outcome: UO1. Students will prepare graphical frequency diagrams and enhance statistical presentation skills	
II	**Measures of Deviation and Correlation**	30
	i) Quartile Deviation ii) Mean Deviation and Standard Deviation iii) Karl Pearson's Correlation Method iv) Rank Order Spearman's Correlation Method	
	Unit Outcomes: UO 1. Students aware about the deviation & correlation.	

Unit No.	Title of Unit & Contents	Hrs.
III	**Chi-square and regression**	30
	Chi-square Test and Standard Error Regression equation and regression line Weather station model Identification of climatic types according to Koppen	
	Unit Outcomes: UO 1. To Understand the Process of Chi-Square & regression.	
IV	**Interpretation of Maps and Models**	30
	i) Interpretation of Indian Daily Weather Maps ii) Interpretation of Topographical Maps iii) Cartographic Representation Techniques iv) Geographical Model Interpretation	
	Unit Outcomes: UO1. Students will develop map interpretation and cartographic skills	

Learning Resources:

1. PrayogikBhoogol: Sharma, J.P. , Rastogi Publication, Merath.
2. Fundamentals of Cartography: Misra, R.P., Concept Publishing, New Delhi.
3. Elements of Cartography: Robinson, A.H. et al., John Wiley and Sons, USA.1995.
4. Elements of Practical Geography: Singh, R.L. and Dutt, P.K., Kalllyani Publishers, New Delhi. 1979.

Internal Examination Pattern :

CAT – I : Attendance (5 Marks)

CAT – II : Record Book Certifications (10 Mark)

CAT – III :Performance (10 Mark)

Mapping of POs, PSOs and COs:

COs/POs & PSOs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3	PSO4
CO1	3	3	3	2	1	1	2	1	3	3	2	1
CO2	3	3	2	2	2	1	2	1	3	3	2	2
CO3	3	3	3	3	2	2	2	1	3	3	3	2
CO4	3	3	2	3	3	2	2	2	3	3	3	2
CO5	3	3	3	3	3	3	3	2	3	3	3	3

Scale : 3 = High, 2 = Moderate, 1 = Low, 0 = No correlation.

Shiv Chhatrapati Shikshan Sanstha's

Rajarshi Shahu Mahavidyalaya, Latur

Empowered Autonomous Institution

Faculty of Humanities and Social Science
Department of Geography
PG I Sem II

Course Type : LC-II (B)
Course Title : Lab Course-II
Course Code : 601GEO2101
Credits : 02 **Max.Marks:50** **Hours: 60**

Learning Objectives:

LO1. To develop practical knowledge of oceanographic data and marine processes.
LO2. To understand techniques of ocean floor and marine map interpretation.
LO3. To train students in analysis of tides, currents, salinity, and temperature.
LO4. To develop skills in marine resource mapping and oceanographic representation.
LO5. To apply oceanographic techniques in environmental and coastal studies

Course Outcomes:

CO1 Understand oceanographic instruments and marine data representation.
CO2 Analyze tides, ocean currents, salinity, and temperature distribution.
CO3 Interpret ocean floor features and marine maps effectively.
CO4 Prepare oceanographic diagrams and thematic representations.
CO5 Apply practical oceanographic knowledge in coastal and environmental studies.

Unit No.	Title of Unit & Contents	Hrs.
I	**Ocean Floor Mapping**	15
	i) Ocean Bottom Relief Features ii) Bathymetric Map Interpretation iii) Continental Shelf and Slope Analysis iv) Preparation of Marine Profiles	
	Unit Outcome: UO1. Students will be able to interpret ocean floor features and prepare marine profiles.	
II	**Ocean Water Characteristics**	15
	i) Temperature Distribution ii) Salinity Analysis iii) Density and Pressure iv) Marine Water Sampling Techniques	
	Unit Outcomes: UO 1. Students will be able to analyze physical properties of ocean water.	
III	**Tides and Ocean Currents**	15

Unit No.	Title of Unit & Contents	Hrs.
	i) Types of Tides ii) Current Mapping iii) Wave Analysis iv) Ocean Circulation Patterns	
	Unit Outcomes: UO 1. Students will be able to interpret tides, waves, and ocean current systems.	
IV	**Marine Resources and Coastal Studies**	30
	i) Marine Resource Mapping ii) Coastal Zone Observation iii) Environmental Problems of Oceans iv) Preparation of Field Report	
	Unit Outcomes: UO1. Students will be able to apply oceanographic knowledge in coastal and environmental studies.	

Learning Resources:

1 Sharma R.C. & Vatal M.	*Oceanography for Geographers*	Ocean floor, tides and currents
2 D.S. Lal	*Oceanography*	Salinity, marine resources and oceanic processes
3 Thurman H.V.	*Essentials of Oceanography*	Oceanographic interpretation and marine studies
4 Strahler A.N. & Strahler A.H.	*Modern Physical Geography*	Physical geography practical applications
5 Monkhouse F.J. & Wilkinson H.R.	*Maps and Diagrams*	Marine diagrams and graphical techniques
6 Savindra Singh	*Physical Geography*	Ocean relief and marine environment
7 G.C. Leong	*Certificate Physical and Human Geography*	Basics of oceanography

Internal Examination Pattern :

CAT – I : Attendance (5 Marks)

CAT – II : Record Book Certifications (10 Mark)

CAT – III :Performance (10 Mark)

Mapping of POs, PSOs and COs:

COs/POs & PSOs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3	PSO4
CO1	3	2	3	2	1	1	2	1	3	2	2	1
CO2	3	3	2	2	2	1	2	1	3	3	3	2
CO3	3	2	3	3	2	1	2	1	3	2	3	2
CO4	2	2	3	3	2	2	3	2	2	3	3	2
CO5	3	3	3	3	3	2	3	3	3	3	3	3

Scale : 3 = High, 2 = Moderate, 1 = Low, 0 = No correlation.

Shiv Chhatrapati Shikshan Sanstha's

Rajarshi Shahu Mahavidyalaya, Latur

Empowered Autonomous Institution

Faculty of Humanities and Social Science
Department of Geography
PG I Sem II

Course Type : MEC-II (A)
Course Title : Political Geography OR
Course Code : 601GEO2103
Credits : 04 **Max.Marks: 100** **Hours: 60**

Learning Objectives:

LO1 Understand the basic concepts, scope and approaches of Political Geography.

LO2 Analyze the concept of state, nation, boundaries and frontiers.

LO3 Interpret geopolitical theories and global political structures.

LO4 Evaluate electoral geography and regional political issues

Course Outcomes:

After completion of course the student will be able to

CO1 Explain concepts and scope of Political Geography.

CO2 Analyze political regions, boundaries and state systems.

CO3 Evaluate geopolitical theories and international relations.

CO4 Interpret electoral geography and political processes

Unit No.	Title of Unit & Contents	Hrs.
I	**Introduction to Political Geography**	18
	i) Meaning, Nature and Scope of Political Geography ii) Approaches to Political Geography iii) Concept of State and Nation iv) Power, Territory and Sovereignty	
	Unit Outcomes: UO 1. Students will understand the basic concepts and foundations of Political Geography	
II	**State, Boundaries and Frontiers**	15
	i) Concept of State and Nation-State ii) Boundaries and Types of Boundaries iii) Frontiers and Buffer Zones iv) Political Regions and Territorial Organization	
	Unit Outcomes: UO 1. Students will analyze state systems, boundaries and political regions	
III	**Geopolitics and Theories**	15

Unit No.	Title of Unit & Contents	Hrs.
	i) Heartland Theory (Mackinder) ii) Rimland Theory (Spykman) iii) Organic Theory of State (Ratzel) iv) Geopolitical Concepts in Global Politic	
	Unit Outcomes: UO 1. Students will evaluate major geopolitical theories and their relevance.	
IV	**Electoral Geography and Political Issues**	13
	i) Electoral Geography: Concept and Importance ii) Voting Patterns and Spatial Behavior iii) Geopolitical Conflicts and Regional Issues iv) Federalism and Regionalism in India	
	Unit Outcomes: UO 1. Students will interpret electoral patterns and contemporary political issues.	

Learning Resources:

1. Dikshit, R.D. – *Political Geography*
2. Pounds, N.J.G. – *Political Geography*
3. Taylor, Peter – *Political Geography*
4. Cox, Kevin – *Political Geography*
5. Hartshorne, R. – *Geography of Political Behavior*
6. Glassner, Martin – *Political Geography*
7. Jones, M. – *Political Geography*
8. Cohen, S.B. – *Geography and Politics*
9. Khanna, K.K. – *Political Geography*
10. Hussain, Majid – *Human Geography*

Internal Examination Pattern :

CAT – I : Assignments / Poster Presentation/ Model Making
CAT – II : Seminar / Group Discussion / Book Review
CAT – III :MCQ Type Exam

Mapping of POs, PSOs and COs:

COs/POs & PSOs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3	PSO4
CO1	3	2	1	1	1	1	1	1	3	2	1	1
CO2	3	3	2	2	2	1	2	1	3	3	2	2
CO3	3	3	3	3	2	2	3	2	3	3	3	2
CO4	3	3	2	3	3	2	3	2	3	3	3	3
CO5	3	3	3	3	3	3	3	3	3	3	3	3

Scale : 3 = High, 2 = Moderate, 1 = Low, 0 = No correlation.

Shiv Chhatrapati Shikshan Sanstha's

Rajarshi Shahu Mahavidyalaya, Latur

Empowered Autonomous Institution

Faculty of Humanities and Social Science
Department of Geography
PG I Sem II

Course Type : MEC-II (B)
Course Title : Fundamentals of Natural Disasters
Course Code : 601GEO2103
Credits : 04 **Max. Marks: 100** **Hours: 60**

Learning Objectives:

LO1 Understand the basic concepts and types of natural disasters.

LO2 Analyze causes and impacts of disasters on environment and society.

LO3 Interpret disaster risk, vulnerability and hazard assessment.

LO4 Evaluate disaster management strategies and mitigation techniques.

Course Outcomes:

CO1 Explain concepts and classification of natural disasters.

CO2 Analyze causes and impacts of various disasters.

CO3 Evaluate disaster risk and vulnerability assessment methods.

CO4 Interpret disaster management and mitigation strategies.

Unit No.	Title of Unit & Contents	Hrs.
I	**Introduction to Natural Disasters**	15
	i) Meaning, Nature and Scope of Natural Disasters ii) Classification of Natural Disasters iii) Natural vs Man-made Disasters iv) Disaster Management Cycle	
	Unit Outcomes: UO 1. Students will understand basic concepts and classification of natural disasters.	
II	**Geological and Geophysical Disasters**	15
	i) Earthquakes: Causes and Impacts ii) Volcanoes and Volcanic Hazards iii) Landslides and Mass Movements iv) Tsunamis and Coastal Hazards	
	Unit Outcomes: UO 1. Students will analyze geological disaster processes and impacts	
III	**Climatic and Hydrological Disasters**	15
	i) Floods: Causes, Types and Impacts ii) Droughts and Desertification iii) Cyclones and Storm Surges iv) Heatwaves and Cold Wave	

Unit No.	Title of Unit & Contents	Hrs.
	Unit Outcomes: UO 1. Students will evaluate climatic and hydrological disaster patterns and effects.	
IV	**Disaster Management and Mitigation**	15
	i) Disaster Risk and Vulnerability Assessment ii) Early Warning Systems iii) Disaster Preparedness and Response iv) Mitigation and Sustainable Disaster Managemen	
	Unit Outcomes: UO 1. Students will understand disaster management strategies and mitigation techniques.	

Learning Resources:

1. Smith, K. – *Environmental Hazards*
2. Alexander, D. – *Natural Disasters*
3. Cutter, S.L. – *Environmental Risk and Hazards*
4. Bryant, E. – *Natural Hazards*
5. Singh, Savindra – *Environmental Geography*
6. Keller, E.A. – *Natural Hazards*
7. Sharma, H.S. – *Disaster Management*
8. Government of India – *National Disaster Management Guidelines*
9. Coppola, D.P. – *Introduction to International Disaster Management*
10. Gupta, A. – *Disaster Management and Risk Reduction*

Internal Examination Pattern :

CAT – I : Assignments / Poster Presentation/ Model Making
CAT – II : Seminar / Group Discussion / Book Review
CAT – III :MCQ Type Exam

Mapping of POs, PSOs and COs:

COs/POs & PSOs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3	PSO4
CO1	3	2	1	1	3	1	1	1	3	2	1	2
CO2	3	3	2	2	3	2	2	1	3	3	2	2
CO3	3	3	3	3	3	2	3	2	3	3	3	3
CO4	3	3	3	3	3	3	3	3	3	3	3	3
CO5	3	3	3	3	3	3	3	3	3	3	3	3

Scale : 3 = High, 2 = Moderate, 1 = Low, 0 = No correlation.

Shiv Chhatrapati Shikshan Sanstha's

Rajarshi Shahu Mahavidyalaya, Latur

Empowered Autonomous Institution

Faculty of Humanities and Social Science
Department of Geography
PG I Sem II

Course Type : FP
Course Title : Field Project
Course Code : 601GEO2101
Credits : 04 **Max.Marks: 100** **Hours: 60**

Learning Objectives :

After completion of the field project, students will be able to:

LO1 Understand techniques of field survey and data collection.

LO2 Apply geographical tools for primary and secondary data analysis.

LO3 Develop skills in mapping, observation and interpretation.

LO4 Prepare scientific field reports based on empirical data.

LO5 Enhance research orientation and analytical thinking.

Course Outcomes:

After completion of the course the student will be able to:

CO1 Plan and execute field-based geographical study.

CO2 Collect and analyze primary and secondary data.

CO3 Apply cartographic and statistical tools in fieldwork.

CO4 Interpret spatial patterns from field observations.

CO5 Prepare structured field project report.

Unit No.	Title of Unit & Contents	Hrs.
I	**Introduction to Field Work in Geography**	15
	i) Meaning and Importance of Field Work in Geography ii) Types of Field Surveys iii) Selection of Study Area and Research Design iv) Objectives and Scope of Field Project	
	Unit Outcome: UO 1. Students will understand basics of fieldwork and research design	
II	**Data Collection Techniques**	15
	i) Primary Data Collection (Questionnaire, Interview) ii) Secondary Data Sources (Census, Reports, Maps) iii) Sampling Techniques iv) Tools and Instruments Used in Field Survey	
	Unit Outcome: UO 1. Students will learn systematic data collection methods.	
III	**Data Analysis and Mapping Techniques**	15

Unit No.	Title of Unit & Contents	Hrs.
	i) Tabulation and Classification of Data ii) Statistical Techniques (Mean, Percentage, Graphs) iii)Thematic Mapping Techniques iv) Interpretation of Spatial Data	
	Unit Outcome: UO 1. Students will analyze and represent geographical data effectively.	
IV	**Report Writing and Presentation**	15
	i) Structure of Field Report ii) Methodology and Data Presentation iii) Map, Diagram and Graph Integration iv) Viva-Voce and Project Presentatio	
	Unit Outcome: UO 1. Students will prepare a complete scientific field report.	

Learning Resources / Reference Books

1. Singh, R.L. – *Elements of Practical Geography*
2. Mishra, R.P. – *Fundamentals of Cartography*
3. Monkhouse & Wilkinson – *Maps and Diagrams*
4. Robinson, A.H. – *Elements of Cartography*
5. Yeates, Maurice – *Statistical Analysis in Geography*
6. Kothari, C.R. – *Research Methodology*
7. Creswell, J.W. – *Research Design*
8. Carter, Harold – *Urban Geography*
9. Singh, Savindra – *Environmental Geography*
10. Hussain, Majid – *Human Geography*

Internal Examination Pattern :

CAT – I : Attandance
CAT – II : Field Report Writing
CAT – III : Performance

Mapping of POs, PSOs and COs:

COs/POs & PSOs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3	PSO4
CO1	3	3	3	2	2	2	2	1	3	3	2	2
CO2	3	3	3	3	2	2	2	1	3	3	3	2
CO3	3	3	3	3	2	2	3	2	3	3	3	3
CO4	3	3	2	3	3	2	3	2	3	3	3	3
CO5	3	3	3	3	3	3	3	3	3	3	3	3

Scale : 3 = High, 2 = Moderate, 1 = Low, 0 = No correlation.

Shiv Chhatrapati Shikshan Sanstha's

Rajarshi Shahu Mahavidyalaya, Latur

Empowered Autonomous Institution

PG First Year

Extra Credit Activities

Sr. No.	Course Title	Credits	Hours T/P
1	MOOCs	Min. of 02 credits	Min. of 30 Hrs.
2	Certificate Courses	Min. of 02 credits	Min. of 30 Hrs.
3	IIT Spoken Tutorial Courses	Min. of 02 credits	Min. of 30 Hrs.

Guidelines:

Extra -academic activities

1. All extra credits claimed under this heading will require sufficient academic input/ contribution from the students concerned.
2. Maximum 04 extra credits in each academic year will be allotted.
3. These extra academic activity credits will not be considered for calculation of SGPA/CGPA but will be indicated on the grade card.

Additional Credits for Online Courses:

1. Courses only from SWAYAM and NPTEL platform are eligible for claiming credits.
2. Students should get the consent from the concerned subject Teacher/Mentor/Vice Principal and Principal prior to starting of the course.
3. Students who complete such online courses for additional credits will be examined/verified by the concerned mentor/internal faculty member before awarding credits.
4. Credit allotted to the course by SWAYAM and NPTEL platform will be considered as it is.

Additional Credits for Other Academic Activities:

1. One credit for presentation and publication of paper in International/National/State level seminars/workshops.
2. One credit for measurable research work undertaken and field trips amounting to 30 hours of recorded work.
3. One credit for creating models in sponsored exhibitions/other exhibits, which are approved by the concerned department.
4. One credit for any voluntary social service/Nation building exercise which is in collaboration with the outreach center, equivalent to 30 hours
5. All these credits must be approved by the College Committee.

Additional Credits for Certificate Courses:

1. Students can get additional credits (number of credits will depend on the course duration) from certificate courses offered by the college.
2. The student must successfully complete the course. These credits must be approved by the Course Coordinators.
3. Students who undertake summer projects/ internships/ training in institutions of repute through a national selection process, will get 2 credits for each such activity. This must be done under the supervision of the concerned faculty/mentor.

Note:

1. The respective documents should be submitted within 10 days after completion of Semester End Examination.
2. No credits can be granted for organizing or for serving as office bearers/ volunteers for Inter-Class / Associations / Sports / Social Service activities.
3. The office bearers and volunteers may be given a letter of appreciation by the respective staff coordinators. Besides, no credits can be claimed for any services/activities conducted or attended within the college.
4. All claims for the credits by the students should be made and approved by the mentor in the same academic year of completing the activity.
5. Any grievances of denial/rejection of credits should be addressed to Additional Credits Coordinator in the same academic year.
6. Students having a shortage of additional credits at the end of the third year can meet the Additional Credits Coordinator, who will provide the right advice on the activities that can help them earn credits required for graduation.

Shiv Chhatrapati Shikshan Sanstha's

Rajarshi Shahu Mahavidyalaya, Latur

Empowered Autonomous Institution

Examination Framework

Theory:

40% Continuous Assessment Tests (CATs) and 60% Semester End Examination (SEE)

Practical:

50% Continuous Assessment Tests (CATs) and 50% Semester End Examination (SEE)

Course	Marks	CAT & Mid Term Theory				CAT Practical		Best Scored CAT & Mid Term	SEE	Total
1	2	3				4		5	6	5+6
		Att.	CAT I	Mid Term	CAT II	Att.	CAT			
Research Methodology	100	10	10	20	10	-	-	40	60	100
DSC/DSE	75	05	10	15	10	-	-	30	45	75
Lab Course	50	-	-	-	-	05	20	-	25	50
Field Project	100	10	10	20	10	-	-	40	60	100

Note:

1. All Internal Exams are compulsory
2. Out of 02 CATs best score will be considered
3. Mid Term Exam will be conducted by the Exam Section
4. Mid Term Exam is of Objective nature (MCQ)
5. Semester End Exam is of descriptive in nature (Long & Short Answer)
6. CAT Practical (20 Marks): Lab Journal (Record Book) 10 Marks, Overall Performance 10 Marks.

Shiv Chhatrapati Shikshan Sanstha's

Rajarshi Shahu Mahavidyalaya, Latur

Empowered Autonomous Institution

Semester End Examination Paper Pattern

Pattern - I

Course : Theory **Max. Marks : 45** **Time: 2 Hrs**

Q.1	**Answer the following questions (3 Marks each)**	**12 Marks**
a)	Based on Unit - I	
b)	Based on Unit - II	
c)	Based on Unit - III	
d)	Based on Unit - IV	
Q.2	**Answer any THREE of the following (5 Marks each)**	**15 Marks**
a)	Based on Unit - I	
b)	Based on Unit - II	
c)	Based on Unit - III	
d)	Based on Unit - IV	
Q.3	**Answer any ONE of the following**	**08 Marks**
a)	Based on Unit – I	
b)	Based on Unit – II	
Q.4	**Answer any ONE of the following**	**10 Marks**
a)	Based on Unit - III	
b)	Based on Unit – IV	

Shiv Chhatrapati Shikshan Sanstha's

Rajarshi Shahu Mahavidyalaya, Latur

Empowered Autonomous Institution

Semester End Examination Paper Pattern

Pattern - I

Course : Theory **Max. Marks : 60** **Time: 2.30 Hrs**

Q.1 **Answer the following questions (4 Marks each)** **16 Marks**

a) Based on Unit - I

b) Based on Unit - II

c) Based on Unit - III

d) Based on Unit - IV

Q.2 **Answer any THREE of the following (6 Marks each)** **18 Marks**

a) Based on Unit - I

b) Based on Unit - II

c) Based on Unit - III

d) Based on Unit - IV

Q.3 **Answer any TWO of the following (8 Marks each)** **16 Marks**

(Based on any two Units)

a)

b)

c)

Q.4 **Answer any ONE of the following** **10 Marks**

(Based on remaining two Units)

a)

b)

Shiv Chhatrapati Shikshan Sanstha's

Rajarshi Shahu Mahavidyalaya, Latur

Empowered Autonomous Institution

Semester End Examination Paper Pattern

Pattern - I

Course : Numerical **Max. Marks : 60** **Time: 2.30 Hrs**

Q.1 Answer the following questions (4 Marks each) **16 Marks**

a) Based on Unit - I

b) Based on Unit - II

c) Based on Unit - III

d) Based on Unit - IV

Q.2 Answer any TWO of the following (9 Marks each) **18 Marks**

(Based on any two units)

a)

b)

c)

Q.3 Answer any ONE of the following **16 Marks**

(Based on remaining two units)

a)

b)

c)

Q.4 Answer any ONE of the following **10 Marks**

(On any Unit)

a)

b)