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॥ अंतरी पेटवू ज्ञानज्योत ॥

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**NORTH MAHARASHTRA UNIVERSITY,  
JALGAON.**

**Syllabus for S.Y.B.Sc.**

**GEOGRAPHY.**

**( W.E.From June, 2003)**

॥ अंतरी मेरू ज्ञानज्योत ॥  
NORTH MAHARASHTRA UNIVERSITY, JALGAON.

**CORRECTIONS.**

**S.Y.B.Sc. Geography.**

**Paper-I Population Geography.**

<b>Unit No.</b>	1	2	3	4	5	6	7	8	<b>Total</b>
<b>Periods</b>	10	10	16	16	12	12	14	14	<b>104</b>

**Paper-II Environmental Science.**

<b>Unit No.</b>	1	2	3	4	5	6	7	8	<b>Total</b>
<b>Periods</b>	8	20	12	12	16	14	10	12	<b>104</b>

**Paper-III Practical Geography.**

<b>Unit No.</b>	I	II	<b>Total</b>
<b>Periods</b>	50	54	<b>104</b>

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NORTH MAHARASHTRA UNIVERSITY,  
JALGAON.

Syllabus for S.Y.B.Sc.

GEOGRAPHY

( W.E.From June, 2003)

Paper – I	Population Geography
Paper – II	Environmental Science
Paper – III	Practical Geography

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# NORTH MAHARASHTRA UNIVERSITY, JALGAON.

## Syllabus for S.Y.III.Sc. Geography

### Paper – I Population Geography

( W.E.From June, 2003 )

#### Objectives :-

The course is meant to provide an understanding of Spatial and structural dimensions of population and the emerging issues. This course is further aimed at familiarizing the students with global and regional level problems and also equip them for comprehending the Indian situation.

Unit No.	Topic	Sub -Topics	Periods
I	Introduction of population Geography	i) Definition ii) Nature and scope of population geography iii) Relationship of population geography with other subjects . iv) Approaches to the study of population geography .	10
II	Population Data	i) Methods of population data collection Primary and Secondary ii) Sources of population data. The Census, Sample Surveys, Vital data Registration, Miscellaneous iii) Problems of population data.	10
III	Growth of population	i) Components of population Growth Fertility , Mortality and mobility ii) Fertility – Definition, Measures of Fertility – Crude Birth Rate, Age Specific Birth Rate and Total Birth Rate, Factors Affecting Fertility iii) Mortality – Definition, Measures of Mortality – Crude Death Rate, Age Specific Mortality and Infant Mortality Rate.	12
IV	Distribution of Population	i) General distribution of world population ( Dense, Medium and Sparse ) ii) Density of population – Meaning and types of density Arithmetic, Agricultural, Economic, Critical and Nutritional density. iii) Factors influencing distribution of population- a) Physical factors, b) Cultural factors	16
V	Composition of Population Meaning and Types	a) Biological Composition i) Racial and Ethnic Composition ii) Age – Composition – Importance, Determinants, Age Pyramids, Age Groups, Age Indices, Dependency Ratio . iii) Sex Composition - Meaning and importance of Sex ratio, Determinants of Sex Composition. b) Cultural Composition :- Religious Composition, Marital Status, Educational Composition.	12
VI	Migration	i) Definition ii) Types of Migration, Internal and International iii) Laws of Migration Formulated by Ravenstein	12

		iv) Factors affecting Migration - Pull Factors and Push Factors v) Consequences of Migration vi) Brain Migration – Brain drain, Brain Overflow, Brain Exchange, Brain Export. vii) Internal Migration in India	
VII	Major Characteristics of Indian Population	i) History of Population growth in India ii) Causes of declining death rate in India. iii) Causes of High Birth rate in India iv) Problems of Over Population in India and its Remedies.	12
VIII	Population and Resources	i) Theories regarding population and Resources a) Malthus      b) Karl – Marx ii) Demographic Transition Mode iii) Concept of Optimum, Over and Under Population.	12

### Reference Books

- 1) A Geography of Population - R.C. Chandana Kalyani, Publishers Ludhiana
- 2) Principles of Population Studies - Asha A. Bhede & Tara Kanitkar  
Himalaya Publishers House, Mumbai - 4
- 3) Fundamentals of Population Geography - B.N. Ghosh  
Sterling Publishers Pvt. Ltd. New Delhi – 16
- 4) Geography of Population - Beaujeu - Garnier J.  
(Translated by Beaver, S.H.)
- 5) Population Geography - Clark J.L.  
Oxford University Press, 1965
- 6) Population Geography - Sundaram K.V. & Nangia Sudash  
(Editors) Heritage Publishers, Delhi, 1986
- 7) A Geography of Population : World Patterns - Terwartha, G.T. John  
Wiley & Sons, New York, 1969
- 8) A Prologue to Population Geography - Zelinsky W,  
Prentice - Hall, Englewood Cliffs.
- 9) Demography - Peter R. Cox  
Universal Book Stall, New Delhi- 2
- 10) Population Geography - Dr. Sawant & Athavale .  
Mehta Publishing House, Pune - 3
- 11) Loksankhya Shastra - Ahirrao, Alizad and Others.

### Weightages

<u>Unit No</u>	<u>Marks</u>
I & II	16
III	16
IV	16
V & VI	20
VII	16
VIII	16
	100

**NORTH MARASHTRA UNIVERSITY, JALGAON.**

**Syllabus For S. Y. B.Sc. Geography**

**Paper – II Environmental Science.**

**(With Effect From June, 2003 )**

<b>Units No.</b>	<b>Topics</b>	<b>Sub Topics</b>	<b>Periods</b>
I	Environmental Science Nature and Scope	i) Meaning, ii) Concept iii) Definitions ii) Nature – Dynamic- interdisciplinary iii) Scope	3
II	Ecosystem	Meaning , Concept, Definitions, Components - Abiotic , Biotic Structure - i) Producers ii) Consumers iii) Decomposers Function - Energy flow in ecosystem i) Food Chain ii) Food Web Nutrient Cycles in ecosystem - i) Carbon Cycle ii) Nitrogen Cyle Ecological Succession - i) Primary, ii) Secondary Ecological pyramid i) Number pyramid ii) Biomass pyramid iii) Energy pyramid	20
III	Biodiverrisity	Meaning , Concept Definitions, Importance , Types – Genetics, Species Ecosystem – their Types –Forest, Hot and cold ecosystem	10
IV	Energy resources	Concept, Definitions, Types – A) Conventional –coal B) Non Conventional- solar, wind and hydel power	10
V	Environmental Pollution	Meaning, Concept, Definitions Type - i) Air pollution –Causes, effects, Remedies. ii) Water pollution - causes, effects, Remedies. iii) Noise pollution - Causes, effects, Remedies. iv) Solid waste pollution- Causes, effects, Remedies.	16

VI	Environmental disasters	Meaning, Concept, Definitions Types - i) Atmospheric ELNino, LA - Nino ii) Hydrological Drought, flood ii) Terrestrial – Earthquakes iii) Biological – weeds and pests.	14
VII	Environmental issues	i) Global warming. ii) Energy crisis iii) Depletion of ozone iv) Acid rain v) Desertification	08
VIII	Environmental Impact Assessment and Education	Meaning, concept, Definitions, Approches, Methods – Steps Education - Concept, objectives Conservation of i) Soil ii) Water iii) Forest Laws - i) Air ii) Water	10

**References :-**

- 1) Environmental Science - Ahirrao and Alizad ,  
Nirali Publishing House, Pune
- 2) Environmental Issues and themes - Agarwal S.K.,  
APH, Publishing corporation, New Delhi.
- 3) Environmental studies - Chaudhari S.R.,  
Himalaya Publishing House, Mumbai.
- 4) Regions of Risk, A geographical - Introduction of disasters - Kenneth, Hewitt  
Addison wesly longman ltd., New York.
- 5) Geography and Mans environment - Strahler A.N. and A.H.  
John wiley, New York.
- 6) Envirnonmental geography - Singh savinder.  
Prayag Pustak Bhavan, Alahabad.

**Weightage :-**

Unit	Marks
I	8
II	16
III	10
IV	10
V	16
VI	16
VII	12
VIII	12
<b>Total</b>	<b>100</b>

**NORTH MARASHTRA UNIVERSITY, JALGAON.**  
**Syllabus For S. Y. B.Sc.**  
**Practical Geography Paper – III**  
**Map Projections, Surveying and field Excursion**  
**WORK LOAD - 12 Students per batch and 4 period per week**  
**(With Effect From June, 2003 )**

No.	Unit	Sub-Unit	Perods
1	Map Projections	(A)1.1 Introduction a) Definition of Map & Globe. b) Parallels of Latitudes c) Meridians of Longitudes d) Great Circles. 1.2 a) Definiation of Map Projections b) Necessity of Map Projection c) Developable and Undevelopable Surfaces.	04
		(B) Classification of Map Projectons 1) According to Qualitative Approach. a) Equidistant Projection b) Hemolographic Projection c) Orthomorphic Projection d) Azimuthal Projection 2) According to Contructional Approach a) Perspective Projections b) Non-Perspective Projections 3) According to the developable surface. a) Zenithal Projections. b) Conical Projections. c) Cylindrical Projections. d) Conventional Projections.	04
		(C) Construction (By Graphical Methods Only) and Study Of uses and Properties of Following Projections 1) Zenithal Projections a) Zenithal Polar Central (Gnomonic) Projections b) Zenithal Polar Stereographic Projections c) Zenithal Polar Orthographic Pojections. 2) Conical Projection. a) Conical Projection with Two Standard Parallels. b) Bonnes Projection. 3) Cylindrical Projection a) Cylindrical Equal Area Projection. b) Mercators Projection 4) Conventional Projections a) Globular Projection b) Sinusoidal Projection c) Mollweide Projection	35
		(D) Choice of Map Projections.	05



2	Surveying	<p>(A) Introduction</p> <p>a) Definition Of Surveying</p> <p>b) Types of Survey</p> <p>i) Geodetic Survey.</p> <p>ii) Plane Survey.</p> <p>c) Methods of Surveying.</p> <p>i) Triangulation</p> <p>ii) Traverse.</p> <p>(B) Plane Table Survey Methods of Plane Table Survey</p> <p>a) Radiation Method</p> <p>b) Intersection Method (Open Traverse)</p> <p>(C) Prismatic Compass Survey</p> <p>i) Bearing : types and Systems of expressing Of bearings. Conversion of beavings</p> <p>ii) Magnetic Declination</p> <p>iii) Procedure of Prismatic Compass Survey</p> <p>i) Open Traverse</p> <p>ii) Closed Traverse (Only for Field Work)</p> <p>iv) Closing errors corrections by Bowditch Method.</p> <p>(D) Dumpy Level</p> <p>i) Collimaion Method</p> <p>ii) Rise and fall Method [ Minimum two examples of each Method ]</p> <p>(E) Indian Clinometer (Minimum Five Examples for Calculating height of Objects.)</p>	<p>03</p> <p>12</p> <p>04</p> <p>12</p> <p>08</p> <p>05</p> <p>04</p>
3	Excursion	Visit to a place of geographical interest and Submission of its Report.	

Unit	Periods	Marks
1	48	40
2	48	40
3	Tour / Excursion Report	10
<b>Total</b>	<b>96</b>	<b>90</b>
Journal :- (5) + Oral (5)		10
<b>Total :-</b>		<b>100</b>

### Reference Books

Sr.No.	Name of Book's	Author's Name
1	Map Work and Practical Geography	Gopal Sing
2	Elements of Practical Geography	R.L. Singh., P.K.Dutta.
3	Fundamentals of Cartography	R.L. Misra and A. Ramesh
4	Map Work and Practical Geography	R. Sing, L.R. Singh / Kanujia
5	A Text book of Practical Geography	M. Ishtiaq.
6	Map Projection	George Kellaway
7	An introduction to the Study of Map Projections	J.A. Steers.
8	Surveying and levelling	T.P. Kanetkar and Kulkarni
9	Surveying and levelling	V.S. Gajare

Unit	Type of Question	Marks
1. Projection	a) Theory	05
	b) Construction of any two Projection 15 marks each	30
	c) Choice of Map Projection	05
2. Surveying	a) Theory / Conversion of bearing	05
	b) Preparation of plan with the help of plane table / Prismatic compass survey.	15
	c) Correction of bearing and closing error by Bowditch method.	10
	d) Example of Dumpy level Rise and Fall method / Collimation method.	06
	e) Calculating Height by Clinometer	04
3. Tour / Excursion Report	a) Report	10
	b) Oral (5) + Journal (5)	10
Total :-		100

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