

**NORTH MAHARASHTRA UNIVERSITY,  
JALGAON**

**Syllabus For T.Y.B.Sc.  
GEOGRAPHY**

**(With effect from June, 2004)**

**NORTH MAHARASHTRA UNIVERSITY,  
JALGAON**

**REVISED SYLLABUS FOR  
T.Y.B.Sc. - GEOGRAPHY  
(With effect from June, 2004)**

**STRUCTURE**

- Paper - I      Geomorphology and Oceanography  
Paper - II     Climatology and Meteorology  
Paper - III    Soil Geography  
Paper - IV    Remote Sensing  
Paper - V     Computer application in Geography & G.I.S.  
Paper - VI    Geography of Maharashtra

- Practical - I    Practical in Geomorphology & Soil analysis  
Practical - II   Remote Sensing, Interpretation of Land - Sat  
                         Imageries and Arial Photography  
Practical - III   Quantitative Techniques and Computer application in  
                         Geography

(Note - For each course two tutorials and one seminar is essential)

**Instruction**

Two tutorials and two seminars  
shall be conducted per paper,  
including the regular teaching schedule.

# NORTH MAHARASHTRA UNIVERSITY, JALGAON

## Syllabus For T.Y.B.Sc. Geography

### Paper - I Geomorphology and Oceanography

(With effect from June, 2004)

Unit No	Topic	Sub-Topics	Periods
1.	Introduction	i) Definition Nature and Scope ii) Development of Geomorphic thoughts a) Ancient b) Medieval c) Recent	14
2.	Origin of primary relief of the Earth	i) Sea floor spreading theory ii) Plate tectonic theory	12
3.	Geomorphic processes	i) Weathering a) Factors of weathering b) Types of weathering c) Effects of weathering ii) Mass movements a) Factors conditioning mass movement b) Types of mass movement c) Effects of mass movement	14
	Scopes	Development of slope profile a) Slope elements b) Wood's and Penck's concept of slope profile development	12
	Work of River & cycle of Erosion	i) Fluvial erosion and deposition a) Process of erosion b) Process of deposition c) Features of river erosion d) Features of river deposition ii) Davisian concept of cycle of erosion iii) Criticisms iii) Interruption of cycle of erosion	14

Unit No	Topic	Sub-Topics	Periods
6.	Marine relief and characteristics of ocean water	i) Hypsographic curve and marine topography a) Hypsographic curve b) Sub marine and marine relief ii) Characteristics of ocean water a) Salinity b) Density	14
7.	Waves	i) Wave generation factors ii) Wave refraction iii) Wave types	10
8.	Coral reef and ocean deposits	i) Coral formation - Favourable geographical conditions and types of coral formation ii) Theories of coral formation a) Darwin's theory b) Dolly's theory iii) Ocean deposits a) Terrigenous b) Pelagic c) Volcanic ash or red clay d) Extra terrestrial meteoric fall (Foreign material)	14

### Reference Books

1.	Morphology and Landscape	Hary Robinson University Tutorial Press (1977)
2.	Principals of Physical Geography	Monkhouse F. J. Hodder & Stoughton. London (1960)
3.	Physical Geography	Tikka Kedamath Ramnath & Co. (1995)
4.	A Text Book of Geomorphology	Dayal P. Shukala Book Depot, Patana (1996)
5.	Geomorphology	Sparks B. W. Longmans, London (1960)
6.	Principles of Geomorphology	Thornburry W. D. Wiley Eastern (1969)
7.	Oceanography for Geographers	King C.A.M. Arnold, London (1975)
8.	Principles of Oceanography	Sharma, Vatel M. Chemya Pub. House, Allahabad (1970)

### Weightage of Marks

Unit I <sup>st</sup> and II <sup>nd</sup>	25 Marks
III <sup>rd</sup> and IV <sup>th</sup>	25 Marks
V <sup>th</sup> and VI <sup>th</sup>	25 Marks
VII <sup>th</sup> and VIII <sup>th</sup>	25 Marks
Total Marks	100 Marks

# NORTH MAHARASHTRA UNIVERSITY, JALGAON

## Syllabus For T.Y.B.Sc. Geography

### Paper - II Climatology and Meteorology

(With effect from June, 2004)

Unit No	Topic	Sub-Topics	Periods
1	Introduction	i) Definition of Climatology & Meteorology ii) Nature and scope of Climatology iii) Relationship with Meteorology iv) Structure and Composition of Atmosphere v) Recent trends in Meteorology	14
2	Temperature	i) Concept of Solar radiation & Insulation ii) Heat budget iii) Green-house effect iv) Controlling factors of temperature v) Inversion of temperature	12
3	Atmospheric pressure & winds	i) Global arrangement of pressure belts & their migration ii) Winds associated with pressure belts iii) Local winds Monsoon - their origin, causes and effects iv) Jet stream	12
4.	Atmospheric moisture	i) Definition and types of humidity ii) Evaporation and condensation iii) Forms of Precipitation iv) Types of rainfall and distribution	14
5.	Airmasses and fronts	i) Definition and source regions of airmasses ii) Classification of airmasses iii) Modification of airmasses a) Thermodynamic modification b) Mechanical modification iv) Airmasses of Asia v) Concept and classification of fronts vi) Frontogenesis and frontolysis	12

Unit No	Topic	Sub-Topics	Periods
6.	Atmospheric disturbances	i) Cyclones and their types ii) Polar front theory iii) Anti-cyclone - Nature, causes & effects iv) Thunderstorms - causes and classification	14
7.	Classification of climate	i) Bases of classification ii) Koppen's classification of climate iii) Thornthwaite's classification of climate	12
8.	Applied Climatology	i) Climatic changes through geological time ii) Theories involving a change in the composition of atmosphere a) Carbon dioxide theory b) Volcanic dust theory iii) Theories involving a change in solar radiation iv) Weather forecasting role of satellite in weather forecasting v) Application of meteorology in various fields	14

### Reference Books

1	Introduction to Weather and Climate	Trewartha (1980)
2	General Climatology	Critchfield J. H. Prentice Hall, India, New Delhi (1993)
3	Monsoons	Das P. K. National Book Trust New Delhi, (1987)
4	Climatology	Lal D. S. Chaitanya Publications Allahabad (1986)
5	Introduction to Meteorology	Peterssen Mc-Graw Hill Book, London (1969)
6	Physical Geography (Atmosphere & Hydrosphere)	Prof. Bharambe, Dhake, Patil Prashant Publication, Jalgaon

### Weightage of Marks

Unit I <sup>st</sup> to I <sup>st</sup>	20 Marks
II <sup>nd</sup> to IV <sup>th</sup>	20 Marks
V <sup>th</sup> to VI <sup>th</sup>	20 Marks
VII <sup>th</sup>	20 Marks
VIII <sup>th</sup>	20 Marks
Total Marks	100 Marks



Unit No	Topic	Sub-Topic	Periods
7.	Soil degradation	i) Causes of degradation a) Soil erosion b) Soil pollution ii) Universal soil loss equation	14
8.	Soil Conservation	i) Meaning and needs ii) measures of soil conservation iii) Sustainable development of soil resource with special reference to India	12

### Reference Books

1.	A Text Book of Soil Science	J. A. Daji
2.	A Geography of Soils	Bunting D. T. Hutchinson, London (1973)
3.	Soil Science	Rode A. A.
4.	Soil Geography	Sarkar
5.	Fundamentals of Soil Science	Foth H.D. and Turk L. M John Wiley, New-York (1972)

### Weightage of Marks

Unit I <sup>st</sup> and II <sup>nd</sup>	20 Marks
III <sup>rd</sup> and IV <sup>th</sup>	20 Marks
V <sup>th</sup>	20 Marks
VI <sup>th</sup>	20 Marks
VII <sup>th</sup> and VIII <sup>th</sup>	20 Marks
Total Marks	100 Marks

**NORTH MAHARASHTRA UNIVERSITY, JALGAON**

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

**Paper - IV Remote Sensing**

**(With effect from June, 2004)**

Unit No	Topic	Sub-Topics	Periods
1.	Introduction	i) Definition of remote sensing ii) Types of remote sensing iii) History of remote sensing iv) Remote sensing activities in India	12
2.	Source & types of electromagnetic energy used in remote sensing	i) Sources of Energy ii) Types of energy iii) Electromagnetic spectrum iv) Division of electromagnetic spectrum v) Nature of EMR a) Interaction of EMR and atmosphere b) Interaction of EMR with matter on the surface of the earth	14
3	Aerial photography	i) Definition of Aerial Photography ii) Photogrammetry a) Types of Aerial Photographs b) Scale of Aerial Photography c) Size of Aerial Photography iii) Cameras and its types iv) Scanner and their types v) Filter and its types	14
4	Senser systems in Remote Sensing Technique	i) Photography ii) Multispectral scanning iii) Thermal scanning iv) Passive Microwave Radiometry v) Sidelooking Airborne Radar	17
5	Platforms for remote sensing	i) Airborn platforms ii) Aircraft platforms iii) Speceborne platforms	10

Unit No	Topic	Sub-Topics	Periods
6.	Remote sensing data product	i) Camera data product ii) Scanners and their data product iii) Satellite types and their data product	10
7.	Satellite remote sensing programmes	i) Advantages & limitations of satellite remote sensing ii) The use of satellite remote sensing iii) Indian satellite remote sensing Programmes, a) IRS-1A b) IRS - 1B c) IRS - 1C d) IRS - 1D	12
8.	Application of remote sensing in Geography	i) Landuse and human settlement ii) Agriculture iii) Environmental management iv) Forestry and wildlife management	20

### Reference Books

1.	Remote Sensing & Photogrammetry (Principles & Applications) Volume I & II	M.L. Jhanwar, T.S. Chouhan Vigyan Prakashan, Jodhpur
2.	Applied Remote Sensing & Photo-Interpretation	T.S. Chouhan, K.N. Joshi Vigyan Prakashan, Jodhpur
3.	Space Today	Mohan Sundara Rajan National Book Trust, India

### Weightage of Marks

Unit I <sup>st</sup> to II <sup>nd</sup>	20 Marks
III <sup>rd</sup>	20 Marks
IV <sup>th</sup> and V <sup>th</sup>	20 Marks
VI <sup>th</sup> and VII <sup>th</sup>	20 Marks
VIII <sup>th</sup>	20 Marks
<b>Total Marks</b>	<b>100 Marks</b>

**NORTH MAHARASHTRA UNIVERSITY, JALGAON**  
**Syllabus For T.Y.B.Sc. Geography**  
**Paper - V Computer Application In Geography And**  
**Geographic Information System (GIS)**  
**(With effect from June, 2004)**

Unit No	Topic	Sub-Topics	Periods
1.	Section - A - Introduction	<b>Computer application in Geography</b> i) Introduction to computer a) Information systems b) System software c) Application software d) Hardware:- Name of hardware & types of computer e) Data :- Types of files ii) Introduction a) The quantitative and computer revolution b) Developing computer: Application in Geography	24
2.	Statistical Analysis & Processing	i) Spread sheet a) Creating a Spread Sheet to analyse Geographical Data b) Specific Purpose Statistical Analysis Packages (SNAP) c) General Purpose Statistical Analysis Packages The analysis of Geographical data using Minitab ii) World Processing a) World Processing Hardware b) World Processing Software c) Printers	13
3	Computer Cartography	i) The Principles of Computer Cartography a) Vector and Raster graphics b) Resolution ii) Computer Cartography Hardware a) Digitizer, b) Joystick, c) Light Pen d) Plotter, e) Camera	

Unit No	Topic	Sub-Topics	Periods
		iii) Computer Cartography Software a) SYMAP, b) GINOSURF, c) TELL-A-GRAF d) GIS and recent development in cartographic Soft ware	15
	<b>SECTION - B</b>	<b>GEOGRAPHICAL INFORMATION SYSTEM (GIS)</b>	
	Geographical Information System (GIS)	i) Introduction Meaning of GIS, Benefits of GIS ii) Components of GIS a) Hardware, b) Software, c) Data, d) People, e) Methods iii) Functions of GIS Geographic references : Vector and Raster models iv) Task of GIS a) Input, b) Manipulation, c) Management d) Query and Analysis, e) Visualisation	18
5.	GIS	i) Application of GIS a) Master planning, b) Proposed Dam Site c) Waste wite selection d) Irrigation and Water resource potential	12
6.	Remote Sensing & Image Analysis	i) Basic principles of remote sensing a) Data collection b) Aerial photographs & Satellite Images c) Image analysis Hardware & Software d) image Analysis Operations : Pre Procussing, Enhancement e) Image Classification & Interpretation	16
7.	Further Trend	i) Looking towards future Recent development & Future trend of GIS	06

**Reference Books**

1.	Geographic Information Systems	Jeffrey Star & John Ester (Prince Hall, Englewood Cliffs, New Jersey) (1994)
2.	Computers in Geography	David J. Maquire Longman Scientific & Technical Printed in Hong Kong
3.	Micro Soft Office 2000	Gini Couter & Annette Marquis (BPB Publications, New Delhi)

**Weightage of Marks**

Unit I <sup>st</sup>	20 Marks
II <sup>nd</sup>	10 Marks
III <sup>rd</sup>	20 Marks
IV <sup>th</sup>	10 Marks
V <sup>th</sup>	10 Marks
VI <sup>th</sup>	20 Marks
VII <sup>th</sup>	10 Marks

**NORTH MAHARASHTRA UNIVERSITY, JALGAON**  
**Syllabus For T.Y.B.Sc. Geography**  
**Paper - VI Geography of Maharashtra**  
**(With effect from June, 2004)**

Unit No	Topic	Sub-Topics	Periods
	<b>SECTION A</b>	<b>COMPUTER APPLICATION IN GEOGRAPHY</b>	
1.	Introduction	i) Formation and History of Maharashtra ii) Location, Size, Shape and Area iii) Administrative divisions	12
2.	Physiography	i) a) General Relief b) Physical divisions of Maharashtra 1) Konkan region 2) Sahyadri mountain 3) Maharashtra plateau. ii) Drainage a) Salient Features of Konkan rivers (Brief) b) Rivers in plateau region 1) Godavari basin 2) Krishna basin 3) Tapi-Purna basin 4) Wardha-Pranhita basin	14
3.	Climate	i) Characteristic of Climate (Season wise ) Summer, Rany and Winter ii) Drought prone area iii) Climatic divisions of Maharashtra	12
	Soil and Natural Vegetation	i) Soil a) Soil types, Characteristics & distribution b) Soil erosion & conservation ii) Vegetation a) Types, distribution & importance of vegetation b) Remedies of forest conservation c) National Parks & Sanctuaries	14

Unit No	Topic	Sub-Topics	Periods
5.	Minerals & Power Resources	i) Study of following resources Bauxite, Manganese, Coal, Petroleum, Natural Gas, Hydel & Thermal power	12
6.	Agriculture	i) Major Crops (Rice, Jawar, Cotton, Sugar Cane) ii) Horticulture in Maharashtra iii) Major irrigation projects iv) Agricultural problems and prospects	14
7.	Population	i) Decennial growth of population ii) Rural & Urban population iii) Study of Urban centers and their common problems a) Mumbai, b) Pune, c) Nagpur, d) Aurangabad	13
8.	Transportation And Industries	i) Types of transportation a) Roads b) Railways c) Coastal shipping d) Airways ii) Industries a) Cotton textiles b) Sugar industries c) Engineering industries	13



Reference Books

1.	Geography of Maharashtra	C. D. Deshpande
2.	Maharashtra	Prof. Sawadi & Keche
3.	Fundamentals of Geography	B. Arunachalam
4.	Maharashtra 2004	Santosh Dastane
5.	State Forest Report 1991	Govt. of Maharashtra
6.	Economy of Maharashtra	Deshpande S. H.
7.	Census Atlas	Govt of Maharashtra
8.	The Economy of Maharashtra	Sahastrabudhe U. G.
9.	Maharashtra in Maps	K. R. Dixit
	भारताचा भूगोल	डॉ. पंडुरंग केचे
	महाराष्ट्राचा भूगोल	डॉ. पंडुरंग केचे
12.	महाराष्ट्राचा भूगोल	प्रा. टी. पी. पाटील
13.	महाराष्ट्राचा भूगोल	डॉ. प्रकाश सावंत
14.	महाराष्ट्राचा भूगोल	डॉ. सुभाषचंद्र सारंग
15.	महाराष्ट्र	प्रा. ए. पी. सपटी
16.	महाराष्ट्राचा भूगोल	डॉ. जयकुमार मगर
17.	महाराष्ट्राचा भूगोल	चं. घु. देशपांडे

Weightage of Marks

Unit I <sup>st</sup> and III <sup>rd</sup>	20 Marks
II <sup>nd</sup>	20 Marks
V <sup>th</sup> and V <sup>th</sup>	20 Marks
VI <sup>th</sup>	20 Marks
VII <sup>th</sup> and VIII <sup>th</sup>	20 Marks
Total Marks	100 Marks

**NORTH MAHARASHTRA UNIVERSITY, JALGAON**  
**Syllabus For T.Y.B.Sc. Geography**  
**Practical - I Practical in Geomorphology and Soil Analysis**  
**(4 Periods per Batch of 12 Students)**  
**(With effect from June, 2004)**

Unit No	Topic	Sub-Topics	Periods
1	Relief Analysis	i) Profile drawing a) Longitudinal profile b) Cross profile Superimposed profile Projected profile Composite profile ii) Relief map Smith's method iii) Slope map Went Worth's method	24
2	Drainage basin morphology	i) Stream Ordering Horton's & Strahler's methods ii) Linear properties of drainage basin a) Order Number & Bifurcation ratio b) Order number & length relationship c) Order length and length ratio iii) Areal properties of drainage basin a) Delineation & estimation of catchment area b) Drainage frequency c) Drainage density d) Constant of channel maintenance iv) Relief properties a) Basin total relief b) Dissection index	24
3	Soil Analysis	i) Concept of soil sampling a) Soil sampling techniques b) Collection of soil samples in the field c) Study of at least 2 samples	16

Unit No	Topic	Sub-Topics	Periods
4.	Physical properties of soil	i) Physical properties of soil a) Bulk density and specific gravity b) pH & Soluble salts /electric conduction c) Soil texture - Decantation beaker Method for determination of coarse sand, Silt and clay	16
5.	Chemical properties of soil	i) Estimation of $\text{CaCO}_3$ content of soil ii) Estimation of Organic Carbon iii) Estimation of NKP status of the soil/ determination of $\text{Fe}_2\text{O}_3$	24

#### Reference Books

1.	Soil Science	Dajji
2.	Soil Chemical Analysis	M. L. Jackson
3.	Practicals in Physical Geography	Singh & Datt
4.	Maps and Diagrams	Monkhouse
5.	Skin of the Earth	Austin Miller
6.	Soil and Sediment Analysis	Trivedi
7.	Physical Properties of Soil	Narayanan
8.	Soil and Plant Analysis	Piper

#### Weightage of Marks

Unit I <sup>st</sup>	25 Marks
II <sup>nd</sup>	25 Marks
III <sup>rd</sup> and IV <sup>th</sup>	25 Marks
V <sup>th</sup>	25 Marks
<b>Total Marks</b>	<b>100 Marks</b>

**NORTH MAHARASHTRA UNIVERSITY, JALGAON**  
**Syllabus For T.Y.B.Sc. Geography**  
**Practical Paper - II Remote Sensing, Interpretation of Land-Sat Imageries and Aerial Photographs**  
**(With effect from June, 2004)**

Unit No	Topic	Sub-Topics	Periods
1.	Introduction	<ul style="list-style-type: none"> <li>i) Definition and Meaning of remote sensing</li> <li>ii) Types of remote sensing</li> <li>iii) Remote sensing systems</li> <li>iv) Drawing of electromagnetic spectrum - spectral regions</li> </ul>	16
2.	Photogrammetry & Aerial Photograph	<ul style="list-style-type: none"> <li>i) Definition</li> <li>ii) Branches of photogrammetry</li> <li>iii) Aerial photograph - Definition</li> <li>iv) Types of Aerial photographs</li> <li>v) Stereoscopic vision</li> <li>vi) Types of Stereoscope</li> <li>vii) Structure, Use and functions of Stereoscope and Paraller bar</li> </ul>	16
3.	Geometry	<ul style="list-style-type: none"> <li>i) Fiducial marks and principal point</li> <li>ii) Transfer of points</li> <li>iii) Methods of scaling of the photographs               <ul style="list-style-type: none"> <li>a) Distance ratio method</li> <li>b) Scale from Toposheet</li> <li>c) Formula method</li> </ul> </li> <li>iv) Calculation of weight with Paraller bar</li> <li>v) Calculation of overlapped area in aerial photograph</li> </ul>	24
4.	Interpretation of Aerial Photographs	<ul style="list-style-type: none"> <li>i) Terminology of Aerial photographs</li> <li>ii) Elements of Photo-interpretation</li> <li>iii) Interpretation of Aerial photographs (At least 2 Aerial Photographs)</li> <li>iv) Comparison between Topo maps and Aerial photographs</li> </ul>	24

Unit No	Topic	Sub-Topics	Periods
5.	Land-Sat Imageries	i) Annotations ii) Calculation of scale iii) Calculation of area iv) Interpretation of Land Sat Imageries (At least 2 Imageries) v) Comparison between Topn maps & Imageries	24

#### Reference Books

1.	Remote Sensing & Photogrammetry (Principles & Applications) Volume I	M.L. Jhanwar, T.S. Chouhan Vigyan Prakashan, Jodhpur
2.	Hand book of Aerial Photography & Interpretation	K. K. Rampal Concept Publishing Company New Delhi
3.	Remote Sensing in Geography	S. M. Rashid Manak Publications Pvt. Ltd New Delhi.
4.	Maps & Air Photography	G. C. Dickenson Arnold Heinemann.
5.	Remote Sensing & Image Interpretation	Thomas M. Lillesand & Ralph W. Kiefer John Wiley Sons, Inc. New York (1994)

#### Weightage of Marks

Unit I <sup>st</sup>	10 Marks
II <sup>nd</sup>	10 Marks
III <sup>rd</sup>	20 Marks
IV <sup>th</sup>	20 Marks
V <sup>th</sup>	20 Marks
Oral and Journal (10+10)	20 Marks
<b>Total Marks</b>	<b>100 Marks</b>

**NORTH MAHARASHTRA UNIVERSITY, JALGAON**  
**Syllabus For T.Y.B.Sc. Geography**  
**Practical Paper - III Quantitative Techniques and Computer**  
**Application in Geography**  
**(With effect from June, 2004)**

Unit No	Topic	Sub-Topics	Periods
1.	SECTION - A : Introduction of Computers	<b>INTRODUCTION TO COMPUTER</b> i) Desktop Task Bar, My Computer, Recyclebin ii) Windows Types of Windows: Document, Folder Application iii) Excel Title Bar, Standard Tool Bar, Menu Bar, Formatting Tool Bar, Formula Tool Bar, Work Sheet Tab, Column Name, Row Number, Active Cell, Data Entry Cell, Calculation with the help of Functions	05
2.	Excel Worksheets	i) Entering Data in Excel a) Entering Data & Editing Cell entries b) Excel application Window, workbook & worksheets, Moving Cell pointer c) Working with Numbers: creating formulas Using Formula palette, Complex Formulas Moving & Coping Cell Contents using drag & drop d) Other Formatting options:- Number Alignment Fonts & Borders, Wrap text Merge Cell Supper-script, Sub Script ii) Analysis Technique a) Using Function & References b) Using Custom & Special Formulas c) Using Auto Format d) Using Conditional Formatting e) Using Statistical Functions f) Using Data menu - Sorting, Auto Filter Advanced Filter	10
			10

Unit No	Topic	Sub-Topics	Periods
3.	Power Point Presentation	iii) Presentation of Analysed Data a) Creating Charts :- Types of Charts, Moving size b) Formatting Chart area c) Charts Options i) Creating basic Presentation Power Point Slides :- General, Design Template & Presentations ii) Building Presentation a) View :- Slide Sorter, Header & Footer b) Insert :- New Slide, Movies, and Sounds Chart c) Slide Show - View Show, Custom Animation	15
<b>SECTION : B</b>		<b>COMPUTER APPLICATION IN THE PRACTICAL OF GEOGRAPHY</b>	12
1.	Quantitative Techniques	i) Statistical Techniques From the Function Categories a) Average, Mean, Median, Mode b) Correlation of Coefficient	05
2.	Quantitative Techniques	i) Calculation of Indices with the help of equations a) Index Number, laspireas method, b) Simple Average of price Relative Method	06
3.	Analysis Techniques	i) IF condition for gradation a) Simple IF Function b) Nested IF Function	06
4.	Analysis of Population Data	i) Population Data a) Age Specific Index b) Fertility Rate c) Sex Ratio	10

Unit No	Topic	Sub-Topics	Periods
5.	Analysis of Population Data	i) Population Data a) Actual Growth Rate b) Dependency Ratio c) Density of Population	10
6.	Analysis of Economic Data	i) Corp Concentration by Bhatias & Rafullahs ii) Corp Diversification by Bhatias	08
<b>(Note - Use separate Work Sheets &amp; Chart Sheets of excel for Individual Exercise)</b>			
<b>SECTION : C</b>		<b>Field project</b>	
7		i) Source of Data collection Census Hand Book, Statistical Abstract, Municipality, Panchayat office, Tahasil office ii) Analysis of Data Apply at least five Indices form Unit No IV, V, IV iii) Analysis Tools Apply IF Condition, Auto Filter, Advanced Filter, Conditional Formatting iv) Prepare Charts Prepare Columns, Lines & Pie Charts for the analysed data v) Presentation of Field Report Prepare the Slides of Charts, Diagrams and analysed data tables with the help Microsoft Power Point. Save the Presentation in the floppy. At the time of Examination submit the floppy & present the work with the help of Micro Soft Power Point	05
<b>SECTION : D</b>		<b>EXCURSION REPORT</b>	
8		Prepare a Report of excursion, If Possible Present it with the help of Power Point	07



**PREPARATION OF THE FIELD PROJECT**

1. Data collected from various sources should be analysed by applying the Indices shown in Section B.
2. Apply Advanced Filter, Auto Filter, IF Condition, Conditional Formatting tools in Data Menu for the groups or Classes
3. Prepare Charts and Insert all charts in the slides of Power Point. Apply Custom Animation, order & Time, effect, Chart effects etc.
4. Save all animated charts, and analysed data in the floppy and submit it before the examination.

**PREPARATION OF EXCURSION REPORT**

1. Scan the Location map, few selected Photographs & Save the files & import in the Power Point
2. Present the Slides of Fields Project & Excursion Report at the time of examination

**EXAMINATION SYSTEM OF PRACTICAL PAPER III**

Students should solve the question paper with the help of computer, Examiners will assess the answer sheets on the monitor and enter the marks at the end of answer sheets. If possible print the answer sheets, Students should save the answers in the floppy in which, slides of field project is loaded. Every Student should create his/her file with his/her examination number and date of Examination. Either print of answer sheets or floppy should be submitted to the university

**Reference Books**

1.	Micro Soft Office 2000	Gini Courter & Annette Marquis (BPB Publications, New Delhi)
2.	Computing Essentials	Timothy J. Leary & Linda I. Leary (Tata Mc Graw-hill Publishing Co., New Delhi)

**Weightage of Marks**

Unit	Units for Understanding Section A. I, II, III	00 Marks
	Units for Practical Work Section B. I, II, III, IV, V, VI	80 Marks
	Unit for Field Work Section C. VII	10 Marks
	Unit for Excursion Section D. VIII	10 Marks
Total Marks		100 Marks

