# Geography

# **Board of Studies**

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# PROGRAMME PROJECT REPORT (PPR)

# **BACHELOR OF SCIENCE IN GEOGRAPHY**

**Distance Mode: Semester Pattern** 



Department of Geography School of Sciences TAMIL NADU OPEN UNIVERSITY

577, Anna Salai, Saidapet, Chennai – 600 015

# PROGRAMME PROJECT REPORT (PPR)

(From Academic Year 2021-22 onwards)

# 1. Programme's Mission & Objectives:

Three year degree in B.Sc Geography Program has been intended to fulfill requirements of students for capability in information on fundamental and essential standards of Physical and Human Geography. As a point that is extraordinary in spanning the social and physical parts of the World, Geography might be a field of science devoted to the investigation of the grounds, the highlights, the occupants, and subsequently, the marvels of Earth. Understudies can build up their systematic abilities through a decent scope of involvement with taking care of uses of Geography by their preparation obtained through the handy lab. The fundamental way of thinking of our point is to "Arrive at the Unreached". Thinking about this, the University dispatched its Geography Program at the Under-graduate level from the meeting AY 2021-22. The primary goals of the task are:

- The educational program is focused on comprehension and tackling natural and feasible advancement issues. This is regularly an essential connection between nature and sociologies.
- By making a psychological guide of network, area or domain, nation and world, students can comprehend the "where" of spots and occasions and relate them to the significant world.
- This course will be wont to comprehend the reliance of the planet and to turn into a much better worldwide resident.
- Empowering people with the logical abilities expected to search out work and improve their lives.
- Providing open doors for intrigued understudies to enter Universities and study past the age, work and seat limits.

### 2. Relevance of the Programme with HEI's Mission and Goals:

The direction is expected to associate with understudies in learning experiences that enable them to learn content just as to make more noticeable energy for learning – engaging them to 'make sense of how to learn' and to be profound established understudies. In the understudy centered perspective of guidance, understudies are stimulated to accept more noticeable risk for their learning results. We are furthermore propelling the usage of Indian language, Tamil for our B.ScGeography program. Thus, students completing this program are going to be able to:

- Recognize Earth as the nation of humankind and offer information to shrewd the heads decisions about how the planet's benefits should be used.
- Grasp geography's viewpoint on world through the central purposes of spot, space, and scale. A central statute of geography is that "zone matters" for understanding a wide grouping of cycles and wonders. Definitely, geography's accentuation on the spot gives a crosscutting point of view on and wonders that various requests will by and large treat in separation. Geographers base on "certified

world" associations and conditions among the miracles and cycles will offer character to any region or spot.

- Research normal social components relating human action to the state of being, biological components associating physical structures, and human-social components interfacing economic, social, and political systems; and
- Direct spatial depiction using visual, verbal, mathematical, progressed, and scholarly approaches. Spots are trademark research habitats for the examination of complex associations among cycles and ponders.

# 3. Nature of Prospective Target Group of Learners:

Bachelor of Science (Geography) Programme is supposed for college kids who have completed 10 +2 patterns from the Board of the upper lyceum, Tamilnadu Government, or equivalent level from the other boards like Central Board of education (CBSC) and Indian School Certificate (ISC) recognized by the Indian Government, etc. It also targets the agricultural population to succeed in their dream of obtaining education for whom the chance was denied thanks to lack of the limited number of seats available within the conventional University system.

The target group may be following:

- Passed out 10+2 fresher students intending education
- Remote/ village intending Learners
- Those who cannot attend a full-time program thanks to constraints.
- Working Professionals and official
- Home Makers and a category having of low level of income, minorities, etc.

# 4. Appropriateness of Programme to be conducted in Open and Distance Learning mode to acquire specific Skills and Competence:

B.ScGeography Program has a great deal of extension inside the Teaching, Research field, Planning likewise inside the application field of Geographical Information System, Remote Sensing and Global Navigation Satellite System. There are three significant segments of this program is Theory, Practical and the hands-on work. The information is granted through SLM and enhanced by addresses, handy, contact classes and advising meetings through on-line and disconnected. The program includes a very much organized arrangement of self-learning material redid to student's ability and inclination. Programme is balanced to evaluate the student's advancement through checks including tasks and tests.

# 5. Instructional Design:

The Department of Geography has planned its educational program and Self Learning materials, different assets and criticism framework which are appropriately examined and endorsed by the Board of Studies and Academic Council of TNOU. The most Objective of B.Sc Geography Program will empower the students to know the basic information

on Geography and have them comprehend the effect of human with the incorporating local environmental condition.

The three-year education in science certificate in Geography comprises of six Semesters. It's educated in Tamil and

English medium. The Faculty Members accessible at the Department of Geography and the resources affirmed as

Academic Counselors of TNOU at Learner Support Centers are conveying the B.Sc Program in Geography.

The credits frameworks recommended according to UGC-ODL Regulations-2020 are relegated to the B.Sc

Geography Program. The whole number of credits doled out for the Program is 102. Learning Material through print-

media named Self-Learning Material (SLM) is created with the methodology of plain as day, independent, self-

rousing, and self-assessing clinging to UGC rule. The Self Learning Materials available in the form of such a print, e-

substance and sound/video materials has additionally been created for the Program.

Practical Counselling classes are taken care of by in-house workforce of TNOU in the primary Campus and at chose

LSCs from wherever Tamilnadu. Viable directing classes are mandatory to complete the course. Manual additionally

as datasheets for the reasonable activities will be given as and when required and, half of viable guiding classes are

led through virtual lab.

6. Procedure for Admissions, Curriculum Transaction and Evaluation:

Admission confirmation measure is led through an online mode. Admissionfee likewise gathered through online

passage administration anddevoted bank challan to guarantee better straightforwardness in monitory exchange. The

confirmation is directed by Tamil Nadu Open University and through its Regional Centres situated within the State

of Tamil Nadu.

**Eligibility** 

: 10+2 Pass

**6.2** Fee

6.1

: Rs. 6000/Year & Registration Processing fee.

**6.3** Financial Assistance

SC/ST Scholarship available as per the norms of the State Government of Tamil Nadu. Complete fee

waiver for the Physically challenged/ differently abled persons.

**6.4 Policy of Programme delivery:** The Academic Calendar for the Program will be accessible for the

students to follow down the ordered occasions/happenings. The Counseling plan for both theory and

Practical will be transferred inside the TNOU site and the equivalent is hinted to the understudies through

SMS.

**6.5 Evaluation System:** Assessment to Bachelor Degree Program in Geography is intended to deal with

the nature of standard. Theory exam and Practical counselling classes are directed by the University in the

distinguished Examination Centers and half of Practical classes will be led on the web. As to Assignments,

understudies could likewise be allowed to compose with the help of books/materials for each Course,

which can be assessed by the Evaluators drew in by the University.

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**6.6 Assignment:** 1 assignment for 2 credits is to be set up by the students. For examplein the event that a Course is of Credit 3, at that point 2 Assignments are to be composed by the student to satisfy the persistent appraisal measures. Task conveys 30% of weightage of imprints, comprises of Long Answer Questions (1000 words) for each Course.

### **6.7** Model Assignment Question Pattern

Assignment -1 Max: 15 marks

Answer any *one* of the questions not exceeding 1000 words

- 1. Question
- 2. Question
- 3. Question

Assignment - 2 Max: 15 marks

Answer any *one* of the questions not exceeding 1000 words

- 1. Question
- 2. Question
- 3. Question

### **6.8** Theory Examination:

Students are normally permitted to allow for theory examination by finishing Practical and Assignments. The Term - End Examination will Carry 70 marks and has Section: A, B and C will be of span 3 hours.

### TERM END QUESTION PAPER PATTERN

Time: 3 Hours Maximum Marks: 70

PART - A (3x3=9 Marks)

Answer any three questions out of five questions in 100 words

All questions carry equal marks

Question Distribution Method:

- 1. From Unit: I
- 2. From Unit: II
- 3. From Unit: III
- 4. From Unit: IV
- 5. From Unit: V

### **PART – B (3X7=21 Marks)**

Answer any three questions out of five questions in 200 words

All questions carry equal marks

- 6. From unit: I
- 7. From unit: II
- 8. From unit: III
- 9. From unit: IV
- 10. From unit: V

### **PART - C (4X10=40 Marks)**

Answer any four questions out of seven questions in 500 words

All questions carry equal marks

- 11. From unit: I
- 12. From unit: II
- 13. From unit: III
- 14. From unit: IV
- 15. From unit: V
- 16. From any Unit.
- 17. From any Unit.
- **6.9. Passing Minimum:** The Passing minimum is 40 percent in the External Theory, Practical as well as Continuous Internal Assessment (CIA) for successful completion of each Course.

| Continuou<br>Assess<br>(CI | sment           | Term End E<br>(TE    |                 | Overall<br>Aggregated<br>Marks | Maximum<br>Marks |
|----------------------------|-----------------|----------------------|-----------------|--------------------------------|------------------|
| Minimum<br>Pass Mark       | Maximum<br>Mark | Minimum<br>Pass Mark | Maximum<br>Mark | CIA + TEE                      |                  |
| 13                         | 30              | 25                   | 70              | 40                             | 100              |

Classification of Successful Candidate: Competitors who pass all the Courses and who secure 60% or more in the total of imprints will be set in the First Class. Those making sure about 50% or more yet fewer than 60% in the total will be put in the Second Class.

### **8** Requirement of the Laboratory Support and Library Resources:

The Program will be offered through the Learner Support Center (LSC) kept up by Tamil Nadu Open University. The LSC has the predefined infrastructural centres to direct the Counseling classes for the students who wish to clear their questions. Three Practical counseling classes (every one every year) in Bachelor Degree Program in Geography and half of Practical classes are directed on the web. The Page | 8

remaining will be led through chosen LSC and upheld the number of students conceded for the genuine Practical Course.

A well-prepared Library is out there inside the University Headquarters with around 24,000 books and a great deal of examination diaries. The Learners Support Centre through which the Degree Programme is to be offered is additionally equipped and a full-fledged library having books and journals related to Geography.

### 9 Cost Estimate of the Programme and the Provisions:

| S.No. | Details  | Amount in Rs. |
|-------|--|---------------|
| 1     | Programme development and launching cost (Expenditure)                 | - 7,32,2888   |
| 2     | Programme Fee charged for 3 years per student (Income)                 | 18,000        |
| 3     | Examination Fee charged for 3 years (Income) per student               | 9,000         |
| 4     | Examination expenses per student for 3 years per student (Expenditure) | - 6,000       |

# 10 Quality Assurance Mechanism and Expected Programme Outcomes:

The norm of the Bachelor Degree Program in Geography is kept up by embracing the educational plan recommended by the UGC and TANSCHE. According to UGC DEB rules the 12 Core courses, four Generic elective courses, Four Discipline Specific Courses, 2 Skill Enhancement Courses and a few Ability Enhancement Courses are incorporated inside the Program. The Curriculum of Bachelor Degree Program in Geography was affirmed by the Board of Studies continued nineteenth, June 2020. It'll be put for endorsement imminent Academic Council and Syndicate of Tamil Nadu Open University of the Quality confirmation. The educational plan for the Program will be refreshed once in three years. Vital advances will be taken to get input from the students and in this manner, the Academic Counselors who are an aspect of the Program for compelling conveyance of the Program.

### 11. PROGRAMME OBJECTIVES

- PO1. Shows basic ideas of geography.
- PO2. Coherent and efficient information in the field of geography that influences current problems and their answers.
- PO3. We develop the ability to fundamentally evaluate vast chains of spatial highlights on various timescales from the global level to the neighborhood level.
- PO4. Ability to read maps and topographic maps and identify different aspects of a place.
- PO5. Recognition of aptitude advancement within geography as part of professional opening in various fields such as teaching, research and organization.
- PO6. Demonstrate competence in using geographic survey tools such as spatial statistics, mapping, remote sensing, GIS, and IRNS

- PSO1. Relevance of geographical knowledge to everyday life.
- PSO2. To communicate geographic information utilizing both lecture and practical exercises.
- PSO3. Inculcate the ability to evaluate geographical problems effectively.
- PSO4. Reveal the skill in using geospatial research tools including spatial statistics, cartography, remote sensing, GIS, IRNSS.

#### PROGRAMME OUTCOMES

- POC1. Demonstrate of fundamental ideas in Geography.
- POC2. Coherent and efficient information inside the field of Geography to influence current issues and their answers.
- POC3. Develop the ability to fundamentally assess the immense chain of spatial highlights at the distinctive time scales from worldwide to neighborhood level.
- POC4. Ability to peruse and maps and topographic sheets to ascertain different aspects of the place.
- POC5. Recognition of aptitude advancement within the geographical studies as a piece of professional openings in different fields like educating, exploration and organizations.
- POC6. Demonstrate proficiency within the use of geographic research tools, including spatial statistics, mapping, remote sensing, GIS and IRNS

It is also suggested that after the completion of B.Sc. Programme, students should be able to demonstrate the knowledge obtained in such way so that they can explore the employability options and service to the society.

## PROGRAMME SPECIFIC OUTCOMES

Three distinct and new learning outcomes have been incorporated from each course such as to:

- PSO1. Understand the relevance of geographical knowledge to everyday life.
- PSO2. Getting the ability to communicate geographic information utilizing both lecture and practical exercises.
- PSO3. Inculcate the ability to evaluate geographical problems effectively.
- PSO4. Exhibit the skill in using geographical research tools including spatial statistics, cartography, remote sensing, GIS, IRNSS and GIScience.

### **COURSE LEVEL LEARNING OUTCOMES**

The course level learning outcomes includes:

- 1. **Basic Concept:** The fundamental concepts and philosophical foundation of each course need to be discussed.
- 2. **Understanding Landscape:** An understanding of landscape at different levels needs to be discussed and understood for a thorough knowledge of spatial dimensions.

- 3. **Understanding Ecosystem Structure and Potential:** To comprehend the dynamic dimensions of human and ecosystem relationships.
- 4. **Human Perception and Behaviour:** Learning human perception and behaviour to acquire the geographical knowledge evolved over time, is essential to improve decision making process.
- 5. **Identification of Critical Problems and Issues:** Detection and identification of the critical problems and spatial issues are essential for sustainable development.
- 6. **Field Based Knowledge:** Field based knowledge is essential to understand the ground reality, spatial patterns and processes.
- 7. **Spatial Tools and Techniques:** The basics and applications of spatial tools and techniques are essential to make the studies more scientific and applicable.
- 8. **Statistical Techniques:** Use of statistical tools and techniques is essential for precise and objective geographic analysis and interpretation of complex phenomena.
- 9. Applied Dimensions: Identification of the critical problems and spatial issues form the core of the modern geography for various applications and decision making, including Resources, Environment & Disaster Management, Land Use Planning, and Urban and Regional Development together with Climate Change Mitigation and Adaptation, etc.
- 10. **Case Study based Analysis:** There is a need to understand the specificities of the problems in specific areas for their in-depth comprehension and solution. The case studies are essential, especially to find out the solutions to the lagging regions for their solutions based on firsthand information.
- 11. **Public Policy and Management:** Spatial aspects and dimensions are the integral parts in the policy making for sustainable regional development. Geographical knowledge needs to be inculcated for application and solutions of the various local, regional and national problems.
- 12. **Communication Skills:** Communication through models, maps, images and other geographical tools form the sound base for the dissemination of geographical information.

# **B. Sc Geography Programme Mapping**

### **Core Courses**

### Semester I

- 1. BGEOS 11: Geomorphology
- 2. BGEOS 12: General Cartography

### Semester II

3. BGEOS 21: Climatology and Oceanography

### **Semester III**

- 4. BGEOS 31: Human Geography
- 5. BGEOS 32: Geography of Health and Well-being

### **Semester IV**

6. BGEOS 41: World Regional Geography

### Semester V

- 7. BGEOS 51: Geography of Tamilnadu
- 8. BGEOS 52: Fundamentals of Remote Sensing
- 9. BGEOS 53: Geography of Settlement

### Semester VI

- 10. BGEOS 61: Geography of India
- 11. BGEOS 62: Fundamentals of GIS and GNSS
- 12. BGEOS 63: Practical: Mapping Techniques III

# **Generic Elective Papers**

### Semester I

1. BGEOSA 11: General Geology

### Semester II

2. BGEOSA 21: Statistics

### **Semester III**

3. BGEOSA 31: Geography of Tourism

### **Semester IV**

4. BGEOSA 41: Information Technology

# **Discipline Specific Elective**

### Semester V

- 1. BGEOS 54: Disaster Studies
- 2. BGEOS 55: Bio Geography

### Semester VI

- 3. BGEOS 63: Economic Geography
- 4. BGEOS 64: Population Geography

# **Skill Enhancement Course**

# **Semester II**

1. BGEOS P1: Practical: Mapping Techniques – I

# **Semester IV**

2. BGEOS P2: Practical: Mapping Techniques – II

# **AEC - Ability Enhancement Courses**

# **Semester IV**

1. BFEF 41: English

2. CCC: Environmental studies

# 6. COURSE-LEVEL LEARNING OUTCOMES MATRIX

|   | Core S        | Subj    | ect | s                               |                 |              |                  |   |                |           |              |           |                 |                |                            |   |                    |                 |           |   |
|---|---------------|---------|-----|---------------------------------|-----------------|--------------|------------------|---|----------------|-----------|--------------|-----------|-----------------|----------------|----------------------------|---|--------------------|-----------------|-----------|---|
| Outcomes  | Geomorphology | General | S   | Climatology and<br>Oceanography | Human Geography | Geography of | Health and Well- |   | World Regional | Geography | Geography of | Tamilnadu | Fundamentals of | Remote Sensing | Geography of<br>Settlement |   | Geography of India | Fundamentals of | S<br>indc |   |
| Basic Concept                                   | X             | X       | Σ   | ζ                               | X               | X            |                  | - | X              |           | X            |           | X               |                | X                          | X |                    | X               |           |   |
| Understanding<br>Landscape                      | X             | X       |     |                                 |                 |              |                  |   | X              |           | X            |           | X               |                |                            | X |                    |                 |           | X |
| Understanding Ecosystem structure and Potential | X             |         | y   | ζ                               | X               | X            |                  |   | X              |           | X            |           |                 |                | X                          | X |                    | X               |           |   |
| Human Perception and Behaviour                  |               |         | Σ   | ζ                               | X               | X            |                  |   | X              |           | X            |           |                 |                | X                          | X |                    |                 |           | X |
| Identification of Critical Problems and Issues  |               | X       | 3   | ζ                               | X               |              |                  |   |                |           |              |           | X               |                | X                          |   |                    | X               |           | X |
| Field Based<br>Knowledge                        | X             | X       | 3   | ζ                               |                 | X            |                  |   |                |           | X            |           | X               |                | X                          | X |                    | X               |           | X |
| Spatial Tools and Techniques                    |               | X       |     |                                 |                 |              |                  |   |                |           |              |           | X               |                |                            |   |                    | X               |           | X |
| Statistical<br>Techniques                       |               | X       |     |                                 |                 | X            |                  |   |                |           |              |           | X               |                |                            |   |                    | X               |           | X |
| Dimensions                                      | X             | X       | Σ   | ζ                               | X               | X            |                  | - | X              |           |              |           | X               |                | X                          |   |                    | X               |           | X |
| Analysis  | X             | X       | Σ   | ζ                               | X               | X            |                  | - | X              |           |              |           | X               |                | X                          |   |                    | X               |           |   |
| Management                                      | X             | X       | 3   | ζ                               |                 | X            |                  |   |                |           | X            |           | X               |                | X                          | X |                    | X               |           |   |
| Communication<br>Skills                         |               | X       |     |                                 |                 |              |                  |   |                |           |              |           | X               |                |                            |   |                    | X               |           | X |

|   | Gener                        | ric Elec                             | ctive   |                       | Discip | oline Sp | ecific |   | Skill<br>Enhan<br>Cours | e | Ability<br>Enhancement<br>Courses |   |
|---|------------------------------|--------------------------------------|---------|-----------------------|--------|----------|--------|---|-------------------------|---|-----------------------------------|---|
| Outcomes  | Gen Gen Gen Dis Bic Ec Ge Ge | Practical: Mapping<br>Techniques – I | English | Environmental studies |        |          |        |   |                         |   |                                   |   |
| Basic Concept                                   | X                            | X                                    | X       | X                     | X      | X        | X      | X |                         |   |                                   | X |
| Understanding<br>Landscape                      | X                            |                                      | X       |                       | X      |          |        |   | X                       | X |                                   | X |
| Understanding Ecosystem structure and Potential | X                            |                                      | X       |                       | X      | X        |        | X |                         |   |                                   | X |
| Human Perception and Behaviour                  |                              | X                                    |         |                       | X      | X        | X      | X |                         |   | X                                 | X |
| Identification of Critical Problems and Issues  |                              | X                                    |         | X                     | X      |          |        | X | X                       | X |                                   | X |
| Field Based<br>Knowledge                        | X                            |                                      |         |                       | X      |          |        |   | X                       | X |                                   |   |
| Spatial Tools and Techniques                    |                              |                                      |         | X                     |        |          |        |   | X                       | X |                                   |   |
| Statistical Techniques                          |                              | X                                    |         | X                     |        |          |        |   | X                       | X |                                   |   |
| Applied Dimensions                              | X                            | X                                    |         | X                     | X      | X        | X      |   |                         |   |                                   | X |
| Case Study based<br>Analysis                    | X                            | X                                    |         |                       | X      |          |        | X |                         |   |                                   |   |
| Public Policy and<br>Management                 | X                            | X                                    | X       |                       | X      |          | X      | X |                         |   |                                   | X |
| Communication<br>Skills                         |                              | X                                    |         | X                     |        |          |        |   |                         |   | X                                 |   |

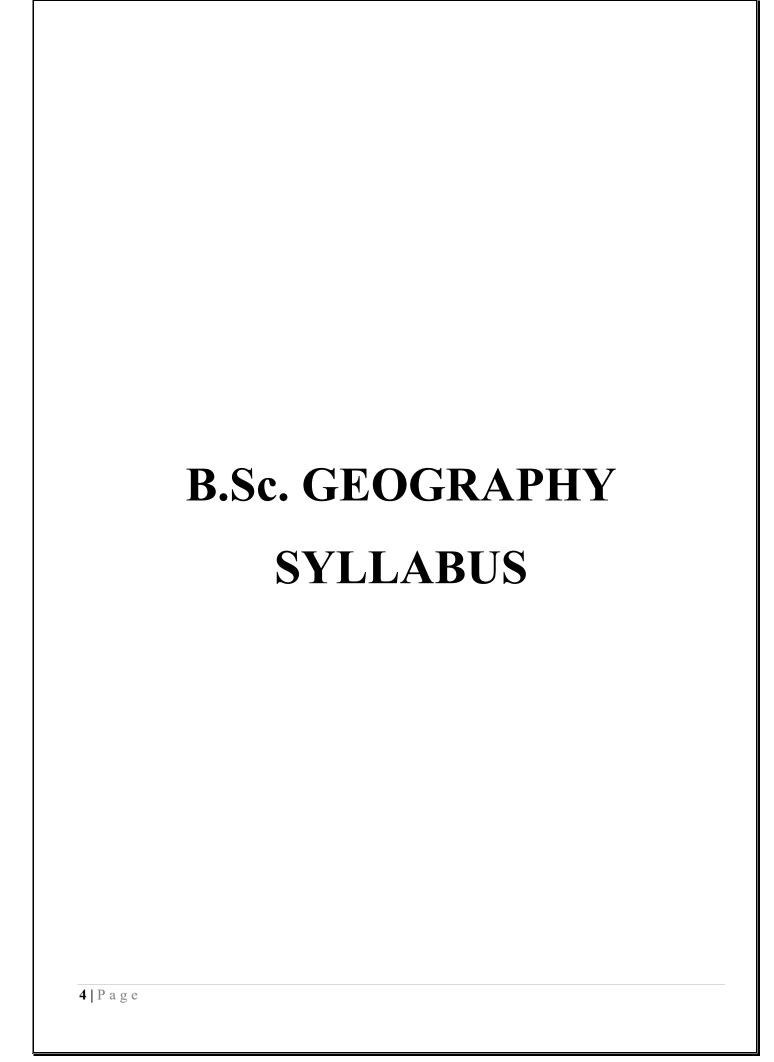
# **B.Sc Geography - Semester Pattern**

# **Allocation of Courses and Credits**

| Course  | Code      | Semester 1                        | Credits | CIA | TEE | Total |
|---------|-----------|-----------------------------------|---------|-----|-----|-------|
| FL1     | BFTMS_11  | Tamil                             | 3       | 30  | 70  | 100   |
| SL1     | BFEGS_11  | English                           | 3       | 30  | 70  | 100   |
| Core 01 | BGEOS_11  | Geomorphology                     | 4       | 30  | 70  | 100   |
| Core 02 | BGEOS_12  | General Cartography               | 4       | 30  | 70  | 100   |
| GEC 01  | BGEOSA_11 | General Geology                   | 3       | 30  | 70  | 100   |
|         | Total     |                                   | 17      |     | 500 |       |
|         |           | Semester 2                        |         |     |     |       |
| FL2     | BFTMS _21 | Tamil                             | 3       | 30  | 70  | 100   |
| SL2     | BFEGS_21  | English                           | 3       | 30  | 70  | 100   |
| Core 03 | BGEOS_21  | Climatology and Oceanography      | 4       | 30  | 70  | 100   |
| SEC 01  | BGEOS_P1  | Practical: Mapping Techniques – I | 2       | 30  | 70  | 100   |
| GEC 02  | BGEOSA_21 | Statistics                        | 3       | 30  | 70  | 100   |
|         | Total     |                                   | 15      |     |     | 500   |

|         |             | Semester 3                          |     |    |    |      |
|---------|-------------|-------------------------------------|-----|----|----|------|
| FL3     | BFTMS_31    | Tamil                               | 3   | 30 | 70 | 100  |
| SL3     | BFEGS_31    | English                             | 3   | 30 | 70 | 100  |
| Core 04 | BGEOS_31    | Human Geography                     | 4   | 30 | 70 | 100  |
| Core 05 | BGEOS_32    | Geography of Health and Well-being  | 4   | 30 | 70 | 100  |
| GEC 03  | BGEOSA_31   | Geography of Tourism                | 3   | 30 | 70 | 100  |
|         | Total       |                                     | 17  |    |    | 500  |
|         |             | Semester 4                          |     | •  |    |      |
| FL4     | BFTMS_41    | Tamil                               | 3   | 30 | 70 | 100  |
| AEC 01  | BFEGS_42    | English                             | 3   | 30 | 70 | 100  |
| Core 06 | BGEOS_41    | World Regional Geography            | 4   | 30 | 70 | 100  |
| SEC 02  | BGEOS_P2    | Practical: Mapping Techniques – II  | 2   | 30 | 70 | 100  |
| GEC 04  | BGEOSA_41   | Information Technology              | 3   | 30 | 70 | 100  |
| AEC 02  | CCC         | Environmental studies               | 2   | 30 | 70 | 100  |
|         | Total       |                                     | 17  |    | •  | 600  |
|         |             | Semester 5                          |     | •  |    |      |
| Core 07 | BGEOS_51    | Geography of Tamilnadu              | 4   | 30 | 70 | 100  |
| Core 08 | BGEOS_52    | Fundamentals of Remote Sensing      | 4   | 30 | 70 | 100  |
| Core 09 | BGEOS_53    | Geography of Settlement             | 4   | 30 | 70 | 100  |
| DSE 01  | BGEOS_54    | Disaster Studies                    | 3   | 30 | 70 | 100  |
| DSE 02  | BGEOS_55    | Bio Geography                       | 3   | 30 | 70 | 100  |
|         | Total       |                                     | 18  |    | •  | 500  |
|         |             | Semester 6                          |     | •  |    |      |
| Core 10 | BGEOS_61    | Geography of India                  | 4   | 30 | 70 | 100  |
| Core 11 | BGEOS_62    | Fundamentals of GIS and GNSS        | 4   | 30 | 70 | 100  |
| Core 12 | BGEOS_P3    | Practical: Mapping Techniques – III | 4   | 30 | 70 | 100  |
| DSE 03  | BGEOS_63    | Economic Geography                  | 3   | 30 | 70 | 100  |
| DSE 04  | BGEOS_64    | Population Geography                | 3   | 30 | 70 | 100  |
|         | Total       | •                                   | 18  |    |    | 500  |
|         | Grant Total |                                     | 102 |    |    | 3100 |

**FL**- First Language, **SL** – Second Language, **GE**- Generic Elective, **DSE**-Discipline Specific Elective, SEC-Skill Enhancement Courses, AEC-Ability Enhancement Courses





### **B.Sc. GEOGRAPHY- FIRST YEAR: I SEMESTER (DISTANCE MODE)**

பாடப்பெயர்

(COURSE TITLE) : தமி

பாடக்குறியீடு(COURSE

CODE)

பாடகற்றல்அளவெண்

(COURSE CREDIT)

தமிழ் - I

BFTM-01

3 Credits

### பாடநோக்கங்கள் (COURSE OBJECTIVES)

• தமிழ்இலக்கியங்களைஅறிமுகநோக்கில்எடுத்துரைத்தல்

• மொழித்திறன், மொழியறிவு, இலக்கியப்பொதுஅறிவுபெறும்வகையில்விவரித்தல்.

# பாடத்தினைப்படிப்பதால்விளையும்பயன்கள் (COURSE OUTCOME

தமிழிலுள்ளசமயஇலக்கியங்கள், சிற்றிலக்கியங்கள், மரபுக்கவிதை, புதுக்கவிதை, உரைநடைஇலக்கியங்கள், மு.வ.வின்உரைநடைச்சிறப்புகள், பாரதிதாசனின்அமைதிநாடகச்சிறப்புகள்பற்றிமாணவர்கள்விரிவாகஎடுத்துரைப்பார்கள்.

### **Syllabus Details**

### பிரிவு – 1 பன்னிருதிருமுறைகள்

தமிழில்சமயஇலக்கியங்கள் சமயஇலக்கியத்தோற்றம், சமணமும்பௌத்தமும், சைவசமயவளர்ச்சி. பன்னிருதிருமுறைபட்டியல்- திருஞானசம்பந்தர்தேவாரம்பாடல்சிறப்புகள். - (திருநாவுக்கரசரின்மாசில்வீணையும், நம்கடம்பனைப்பெற்றவள், பொன்னார்மேனியனே, மாணிக்கவாசகர் சுந்தரர் - பித்தாபிறைசூடி, வானாகிமண்ணாகி, பால்நினைந்துஊட்டும், திருமூலரின்ஒன்றேகுலமும்ஒருவனேதேவனும், அன்பும்சிவமும்இரண்டென்பர், காரைக்காலம்மையார் இன்று நமக்கெளிதேமாலுக்கும், அறிவானும்தானேஅறிவிப்பான்.

### பிரிவு – 2 நாலாயிரத்திவ்யப்பிரபந்தம்

முதல்மூன்றுஆழ்வார்கள் – பொய்கையாழ்வார்பாடல் - வையம்தகளியாவார்கடலே, பூத்ததாழ்வார்பாடல் - அன்பேதகளியாஆர்வமே- பேயாழ்வார் – இருக்கண்டேன்பொன்மேனிகெண்டேன், இருமழிசைஆழ்வார்பாடல் – அன்பாய்ஆரமுதம்ஆவாய், நம்மாழ்வார் - இவையும்அவையும்உவையும், மதுரகவியாழ்வார் – நன்மையால்மிக்கநான்மறை, குலசேகராழ்வார் – செல்வத்துஅரம்பையர்கள், பெரியாழ்வார் – மாணிக்கம்கட்டிவயிரம்இடைகட்டி - ஆண்டாள் – மத்தளம்கொட்டவரிசங்கம், தொண்டரடிப்பொடியாழ்வார் – பச்சைமாமலைபோல்மேனி, இருப்பாணாழ்வார் – கொண்டல்வண்ணனைக்கோவலனாய், இருமங்கையாழ்வார் – குலம்தரும், செல்வம்தந்திடும், அடியார்.

### பிரிவு – 3 சீறாப்புராணம்( கதீசாகனவுகண்டபடலம்)

சீறாப்புராணம் – காப்பியஅமைப்பு, கதீசாகனவுகண்டபடலம், காப்பியமுன்கதைச்சுருக்கம், படலக்கதைச்சுருக்கம் – கதீசாகனவுகண்டுஎழுதல் – கதீசாகண்டகனவு, கதீசாவின்ஏமாற்றம் – கதீசாவின்இயல்புநிலையில்மாற்றம் – ஒப்பனைதுறந்தவிரக்தி, பஞ்சணைபொருந்தாநிலை – கதீசாவின்புலம்பல் – விதவசம்பொருந்துமோஎனல், மாதுலன்வசனம்சிதையுமோஎனல், கதீசாதேம்புதல். – மெசறாவின்மடல்வருதல் – மைசறாஎழுதியபத்திரம், சித்திரவரிதொறும்முத்தமிடுதல், கடலில்தவிப்பார்க்குக்கிடைத்தமரக்கலம்.

### பிரிவு – 4 தேம்பாவணி (காட்சிப்படலம்)

தேம்பாவணி – காப்பியஅமைப்பு, காட்சிபடலம், காப்பியமுன்கதைச்சுருக்கம், படலக்கதைச்சுருக்கம், - கோவர்கூட்டம்வந்துகாணுதல் – குழந்தைஇயேசுவைத்தொழுதல், முல்லையார்தந்தமுல்லைமாலை, பேரின்பத்தால்உயிர்ஊஞ்சலாடல்- கோவலர்போற்றிவாழ்த்துதல் – நீவிப்போனஆட்டைமீட்கவோஉதித்தனைஎனல், பிணிக்குலத்தக்கதுஉதித்தபெற்றிபோற்றல், அன்னையையும்ஆண்டவரையும்வாழ்த்துதல் – கோவலர்செலுத்தியகாணிக்கை – இடைச்சியர்மாலைசாத்தல், இடையர்தந்தபால்காணிக்கை, குழந்தைஇயேசுவின்அருள்நோக்கு – ஓகனோடுஓங்குதாயும்வாழ்த்தினாள் – அன்பால்பீறிட்டஆனந்தக்கண்ணீர்மழை, வேந்தரைநீக்கிஆயரைத்தெரிந்ததென்எனல்.

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### ஆய்மணிப்பைம்பூண்எனத்தொடங்கும்பாடல்கள்)

நந்திக்கலம்பகம் (ஊசல், மறம்உறுப்பில்அமைந்தபாடல்கள்)
தமிழில்சிற்றிலக்கியங்கள் – சிற்றிலக்கியத்தோற்றம், சிற்றிலக்கியவகைகள், கலம்பகம், பிள்ளைத்தமிழ் –
முத்தொள்ளாயிரம் - நூல்பெயர்விளக்கம், அமைப்பு, யானைமறம்விளக்கம், கைக்கிளைவிளக்கம், முத்தொள்ளாயிரம் – யானைமறம்பாடல்கள் – பாண்டியன்யானைமறம் – ஒருபாடல், சோழன்யானைமறம் –
ஒருபாடல், சேரன்யானைமறம் – ஒருபாடல் – முத்தொள்ளாயிரம் – கைக்கிளைப்பாடல்கள் –
பாண்டியன்கைக்கிளை – ஒருபாடல், சோழன்கைக்கிளைஒருபாடல், சேரன்கைக்கிளைஒருபாடல், - நந்திக்கலம்பகம்
– ஊசல், மறம் – கலம்பகஊறுப்புகள் 18 விளக்கம், ஊசல்உறுப்பில்அமைந்தபாடல், மறம்உறுப்பில்அமைந்தபாடல்
– நந்திக்கலம்பகம், தலைவன்தலைவிகூற்று – தலைவன்கூற்றுப்பாடல், தலைவிகூற்றப்பாடல்.

### பிரிவு – 6 மீனாட்சியம்மைபிள்ளைத்தமிழ் (அம்புலிபருவம்)

பிள்ளைத்தமிழ்விளக்கம் – பிள்ளைத்தமிழின்பத்துப்பருவங்கள், பிள்ளைத்தமிழுக்குஅம்புலி – விளக்கம், - சாமம்என்னும்வழிமுறை – சாமம்விளக்கம், சாமம்வழிமுறைப்பாடல் – தானம்என்னும்வழிமுறை – தோனம்விளக்கம், தானம்விறிமுறைப்பாடல் – பேதம்என்னும்வழிமுறை – பேதம்விளக்கம், பேதம்வழிமுறைப்பாடல் – தண்டம்என்னும்வழிமுறை – தண்டம்விறிமுறைப்பாடல்.

### பிரிவு – 7 இக்காலமரபுக்கவிதைகளும்பாட்டுஇலக்கியமும்

மரபுக்கவிதைகளும்பாட்டு இலக்கியமும் – மரபுக்கவிதைகள்விளக்கம், பாட்டுக்கள் – வள்ளலார், பாரதியார், பாரதிதாசன் – வள்ளலார்இராமலிங்கஅடிகள்பாடல் – ஒருமையுடன்நினது திருமலரடி... - பாரதியார் – யாமறிந்தமொழிகளிலே – பாரதிதாசன் – காலைஇளம்பரிதியிலே... நாமக்கல்கவிஞர், கவிமணி – நாமக்கல்கவிஞர்இராமலிங்கம்பிள்ளைபாடல் – தமிழனென்று சொல்லடா... - கவிமணிதேசிகவிநாயகம்பிள்ளைபுலர்ந்துவிடியும்பொழுதினிலே...சுரதா, முடியரசன் – சுரதா – சுவரின்மேல் ஒட்டிக்கொண்டிருக்கும் – முடியரசன் – சாதியைத்தான்முன்வைத்துச்சான்று கின்றார். கண்ணதாசன் – கேள்விபிறந்தது அன்று, மருதகாசி – சமரசம் உலாவும் இடமே, பட்டுக்கோட்டையார் – சின்னப்பயலே

### பிரிவு – 8 புதுக்கவிதைகளும்ஐக்கூக்கவிதைகளும்

புதுக்கவிதைகளும்ஐக்கூக்கவிதைகளும் – புதுக்கவிதைகள்விளக்கம், - நா. காமராசன் – பாற்கடல்அமுதத்தை..., அப்துல்ரகுமான்– நாற்காலியாய்இருந்தவன் ..., மீரா – மூட்டைமூட்டையாய்..., சிற்பி – அகன்றஉலகுநான்..., இன்குலாப் – பதவியூர்போகும்..., மு. மேத்தா – என்னுடையசம்பளநாளில்..., அபி – பகல்வெளியில்எங்கோ..., ஈரோடுதமிழன்பன் – நீலச்சேற்றில்..., சேசாலம் – மண்ணின்வெடிப்பை..., வைரமுத்து – அவிழ்ந்தகூந்தலைஅள்ளிமுடிக்க..., ஐக்கூக்கவிதைகள் – அப்துல்ரகுமான் – இரவெல்லாம் ..., அமுதபாரதி – எரியும்பிணங்கள், மித்ரா – பசித்தகுழந்தைகள், அறிவுமதி – மரம்வெட்டிய..., கழனியூரன் – அன்புடைமை...

### பிரிவு – 9 மு. வரதராசனாரின் "தமிழுக்குமுதல்இடம்"

தமிழில்உரைநடைவளர்ச்சி – உரைநடையின்தோற்றம், தமிழில்கட்டுரைகள், தமிழில்மணிப்பிரவாளநடை, தமிழில்தனித்தமிழ்நடை, - மு. வரதராசனார்உரைநடை,-மொழிப்பற்றுநூல்அறிமுகம், தமிழுக்குமுதல்இடம் – கட்டுரைஉட்பொருள் – தமிழுக்குமுதல்இடம் – தமிழ்நாட்டுக்கோயில்களில்வடமொழி, தமிழ்இசைகருநாடகஇசையாகமாறிப்போனது, தமிழ்இசைக்குமுதல்இடம், ஆட்சித்துறையில்தமிழுக்குமுதல்இடம், ஆங்கிலப்பத்திரிகைகளும்அமாவாசைச்சாமியார்களும்.

### பிரிவு – 10 பாரதிதாசனின் "அமைதி" நாடகம்

தமிழில்உரைநடைநாடகவளர்ச்சி, - தமிழில்நாடகங்களின்தோற்றம், 20 ஆம்நூற்றாண்டில்தமிழ்நாடகங்களின்நிலை, முத்தமிழில்நாடகத்தமிழ்விளக்கம், மௌனமொழிஉலகப்பொதுமொழி. – பாரதிதாசன்என்னும்நாடகஆசிரியர் – புரட்சிக்கவிஞரின்நாடகப்புரட்சி, பிரெஞ்சுநாடகத்தாக்கம், அமைதியின்சிறப்பு – அமைதிநாடகக்கதைச்சுருக்கம் – அமைதி – களம்ஒன்று, களம் – இரண்டு, களம்மூன்று, களம்நான்கு, களம்ஐந*்*து, களம்ஆறு, களம்ஏழு, அமைதிநாடகத்திறனாய்வு.

#### பார்வைநூல்கள்:

- 1. மு. வரதராசன், தமிழ்இலக்கியவரலாறு, சாகித்யஅக்காதெமி, புதுடெல்லி.
- 2. மது. ச. விமலானந்தன், தமிழ்இலக்கியவரலாறு, மீனாட்சிபுத்தகநிலையம், மதுரை.
- 3. தமிழண்ணல், புதியநோக்கில்தமிழ்இலக்கியவரலாறு, மீனாட்சிபுத்தகநிலையம், மதுரை.



**B.Sc. GEOGRAPHY- FIRST YEAR: I SEMESTER (DISTANCE MODE)** 

**COURSE TITLE** : Foundation in English-I (Literature and Grammar)

COURSE CODE : BFEG-1

COURSE CREDIT : 3 Credits

### **COURSE OBJECTIVES**

While studying the Foundation in English-I (Literature and Grammar), the student shall be able to:

- To make the learners aware of the history of England
- To cultivate the creativity among the learners
- To improve the reading skills of the learners
- To enhance the vocabulary of the learners
- To make the learners read and write in English

# **COURSE OUTCOMES**

On successful completion of the Course, the learners will be able to:

- describe the history of England
- critically analyse the literary texts
- use the words correctly
- write in flawless English

### **Syllabus Details**

# **Block1: Brief History of England**

Tudor England - Stuart England - Restoration England - Revolutions - Eighteenth Century-19th Century Education - 20th Century

### **Block 2: Literary Texts**

R.K. Narayan- An Astrologer's Day and Sarojini Naidu - Bangle Sellers

# **Block3: Reading Comprehension**

Definition of Comprehension- Types of Comprehension- Reading Materials-Vocabulary- Critical Reading- Effective Reading- Exercises

# **Block 4: Functional Grammars and Vocabulary**

Parts of Speech- Tenses-Articles -Prepositions and Linkers —Punctuation-Common Mistakes -Polite Expression-Affixes

# **Block5: Language Skills**

Reading Skills: SQ3R Technique -Writing Skills -Dictionary Use

# **References:**

- 1. Narayan R.K. Short Story Collections.
- 2. Sarojini Naidu. Bangle Sellers
- 3. Sinha C.A. Reading Comprehension. Prabhat Prakashan.
- 4. Xavier A.G. *An Introduction to the Social History of England*. Viswanathan S. Printers, Chennai. 2009.

# **Web Resources:**

- 1. https://www.digimat.in/nptel/courses/video/109106124/L01.html
- 2. https://www.digimat.in/nptel/courses/video/109106138/L46.html
- 3. <a href="https://www.coursera.org/lecture/multimodal-literacies/9-2-learning-to-read-reading-for-meaning-HdG3O">https://www.coursera.org/lecture/multimodal-literacies/9-2-learning-to-read-reading-for-meaning-HdG3O</a>
- 4. <a href="https://nptel.ac.in/courses/109/107/109107172/">https://nptel.ac.in/courses/109/107/109107172/</a>



**B.Sc. GEOGRAPHY- FIRST YEAR: I SEMESTER (DISTANCE MODE)** 

COURSE TITLE : Geomorphology

COURSE CODE : BGEOS 11

**COURSE CREDIT** : 4 Credits

### **COURSE OBJECTIVES**

While studying Geomorphology, the student shall be able to:

CO1 Realize the Geomorphological concepts.

CO2 Exploring the theories of Geomorphology

CO3 Associating the various Geomorphic processes.

CO4 Appreciating the Cycle of erosion.

CO5 Distinguish the Evolution of Landforms.

### **COURSE OUTCOMES**

After completion of the **Geomorphology**, the student will be able to:

- CLO1 The basic concepts, Earth's structure, types of rocks and types of folds and faults.
- CLO2 Theories such as Theory of isostasy, Continental drift theory, Seafloor spreading and Plate Tectonics Theory.
- CLO3 Evaluating the geomorphic processes due to Earthquakes and Volcanoes, Weathering, and Mass Wasting.
- CLO4 Knowledge about the Cycle of Erosion given by Davis and Penck
- CLO5 Studying the Evolution of Landforms associated with the action of river, underground water, Aeolian and Glacial, Coastal landforms and geomorphic applications.

### **Syllabus Details**

### **Block 1: Introduction to Geomorphology**

- 1. Nature, Scope, Key concepts, and Systems approach
- 2. Earth: Interior Structure
- 3. Rock Types: Igneous Sedimentary and Metamorphic
- 4. Types of Folds and Faults

### **Block 2: Theories of Geomorphology**

- 5. Theory of isostasy
- 6. Wegner's Continental drift theory

- 7. Seafloor spreading
- 8. Plate Tectonics Theory

# **Block 3: Geomorphic Processes**

- 9. Earthquakes and Volcanoes.
- 10. Weathering and Mass Wasting

### **Block 4: Cycle of Erosion**

- 11. Cycle of Erosion: Davis
- 12. Cycle of Erosion: Penck

### **Block 5: Evolution of Landforms**

- 13. Evolution of Landforms (Erosional and Depositional): Fluvial and Karst
- 14. Evolution of Landforms (Erosional and Depositional): Aeolian and Glacial
- 15. Evolution of Landforms (Erosional and Depositional): Coastal.
- 16. Application of Geomorphology in Mineral Exploration and Coastal Zone Management.

### References

- 1. Summerfield M. A. (2013): Global Geomorphology, Routledge, New York
- 2. Khullar, D.R., (2012) Physical Geography, Kalyani Publishers, New Delhi.
- 3. Christopherson, R. W. and Birkeland, G. H., (2012) Geosystems: An Introduction to Physical Geography (8th edition), Pearson Education, New Jersey.
- 4. Huggett, R.J. (2007) Fundamentals of Geomorphology, Routledge, New York.
- 5. Das Gupta, A., and Kapoor, A.N, Principles of Physical Geography, S.C. Chand & Company Ltd, 2001.
- 6. Lobeck. A.K. (1939) An Introduction to the study of Landscapes, McGraw -Hill Book company
- 7. Thorn Bury.D.(1984) Principles of Geomorphology, Wiley Eastern Ltd, New Delhi, 1984

### WebReferences

- https://sudartomas.files.wordpress.com/2012/11/fundamentalsofgeomorphology\_routledgefunda mentalsofphysicalgeography.pdf
- <a href="https://open.umn.edu/opentextbooks/textbooks/926">https://open.umn.edu/opentextbooks/textbooks/926</a>
- <a href="https://www.geographynotes.com/geomorphology/7-major-geomorphic-theories-of-landform-development/686">https://www.geographynotes.com/geomorphology/7-major-geomorphic-theories-of-landform-development/686</a>



**B.Sc. GEOGRAPHY- FIRST YEAR: I SEMESTER (DISTANCE MODE)** 

COURSE TITLE : General Cartography

COURSE CODE : BGEOS 12

**COURSE CREDIT** : 4 Credits

### **COURSE OBJECTIVES**

While studying the General Cartography, the student shall be able to:

- CO1 Enumerate the history and development of Cartography.
- CO2 Examining the Maps and their classifications.
- CO3 Evaluating the various types of Projections
- CO4 Representation of data for various aspects and purposes
- CO5 Proceeding various methods of Map Compiling, Design and Layout

### **COURSE OUTCOMES**

After completion of the **General Cartography**, the student will be able to:

- CLO1 Insight the basic concept, Development of Cartography and the Shape, Gravity, and Dimension of Earth.
- CLO2 Identifying the components of map and its classifications.
- CLO3 Analyzing various projections such as Zenithal, Cylindrical and Conical.
- CLO4 Representation of data for various aspects and purposes
- CLO5 Educating the various cartographical processes for Map making.

# **Syllabus Details**

# **Block 1: Understanding of Cartography**

- 1. Nature and Scope and Development of Cartography
- 2. Earth as a Cartographic Problem: Shape, Gravity, and Dimensions

# **Block 2: Maps and Classification**

- 3. Scale and Functions, Direction, and geographic coordinates
- 4. Classification of Maps

## **Block 3: Map Projections**

- 5. Criteria for Choice of Projections.
- 6. Attributes and Properties of Zenithal Gnomonic Polar Case,

- 7. Attributes and Properties of Cylindrical Equal Area,
- 8. Attributes and Properties of Conical Projection with Two Standard Parallel.

# **Block 4: Representation of Data**

- 9. Interpretation of Thematic Maps.
- 10. Symbolization: Point, Line and Area.
- 11. Lettering and toponomy
- 12. Choropleth, Isopleth and Flow Diagrams

# Block 5: Map Compiling, Design and Layout

- 13. Enlargement and reduction Methods
- 14. Compilation and generalization
- 15. Reproduction
- 16. Visual interpretation and Constraints in map design.

### References

- 1. Cartography: Visualization of Geo Spatial Data Menno Jan Kraak&FeijanOrmeing, Pearson Duration, New Delhi, 2003.
- 2. Fundamentals of Cartography Misra and Ramesh, Concept Publishing House, New Delhi, 1989.
- 3. Elements of Practical Geography Singh, PL., Kalyan Publishers, 1979
- 4. Elements of Cartography Robinson, John Wiley 4, 1978
- 5. Maps and Diagrams Monkhouse and Wilkinson, Methuen & Co. Ltd., London, 1973
- 6. Principles of Cartography Raisz, McGraw hill, 1962

### Web References

- 7. <a href="https://www.geolaunge.com/types-map-projections/">https://www.geolaunge.com/types-map-projections/</a>
- 8. http://www.remsenslab.geol.uoa.gr/digital.html
- 9. https://www.kullabs.com/classes/subjects/units/lessons/notes/note-detail/156

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# **B.Sc GEOGRAPHY- FIRST YEAR: I SEMESTER (DISTANCE MODE)**

COURSE TITLE : General Geology

COURSE CODE : BGEOSA 11

COURSE CREDIT : 3 Credits

### **COURSE OBJECTIVES**

While studying the General Geology, the student shall be able to:

**CO1** Grasp the solar system and the Earth.

**CO2** Knowledge about the important Indian geological formations

CO3 Deformation of Folds, Faults and Joints due to internal forces

**CO4** Basic characteristics of crystallography and minerology.

CO5 Types of rocks and its characteristics.

### **COURSE OUTCOMES**

After completion of the General Geology, the student will be able to:

- **CLO1** Insight the origin solar system age, compositions, structure, and drift of the earth.
- **CLO2** Evaluating the different types of folds, faults and joints occur in the earth.
- **CLO3** Knowledge the morphological characteristics, Laws of Stratigraphy, and geological formations in India
- **CLO4** Knowledge the morphological characters of crystals, Crystal symmetry and Descriptive Mineralogy
- **CLO5** Distinguishing the Rocks and their types.

# **Syllabus Details**

### Block 1: Study of the Solar system

- 1. An outline of Nebular and Planetesimal hypotheses of the origin of Solar system
- 2. An outline of the constitution and composition of the interior of the earth
- 3. Important methods of determining the age of the earth- Earthquakes and their effects, seismograph- Seismograms- Modern scale of intensity of earthquakes
- 4. Concepts of continental drift Wegner's hypothesis.

### **Block 2: Folds, Faults and Joints**

- 5. Folds: Symmetrical and Asymmetrical; Anticline and Syncline.
- 6. Faults: Normal fault, strike fault, dip fault, oblique fault, horst and graben
- 7. Types of Joints: Strike Joints, Dip Joints, Oblique Joints and Bedding joints and Definition of Unconformity and non- conformity.

# Block 3: Morphological characteristics of Stratigraphy

- 8. Definition, Modes of preservation and uses of fossils
- 9. Morphological characteristics of the following: Pelecypods, Gasteropods, Cephalopods, Brachiopods and Trilobites.
- 10. Laws of Stratigraphy Geological Time Scale
- 11. formations in India: Dharwar system of Karnataka, Cuddapah system, Vindhyan system, Triassic of Spiti, Jurassic of Kutch and Cretaceous of Trichinopoly.

# **Block 4: Crystallography and Minerology**

- 12. Crystallography: Definition of Crystal Morphological characters of crystals Faces Forms Edges Solid angles
- 13. Crystal symmetry: Axes of symmetry, plane of symmetry and Centre of symmetry Parameters and Miller's indices
- 14. Descriptive Mineralogy: Definition, Physical properties and Description of the following: Quartz and its varieties, Orthoclase, Albite, Anorthite, Hornblende, Hypersthene, Olivine, Muscovite, Chlorite, Garnet, Talc, Topaz and Calcite.

### **Block 5: Rocks**

- 15. Igneous rocks: Description of the following: Granite, Pegmatite, Syenite, Diorite, Dunite, Anorthosite, Dolerite and Basalt.
- 16. Sedimentary rocks: Description of the following: Conglomerate, Sandstone, Arkose, Grit, Shales and Limestone.
- 17. Metamorphic rocks: Description of the following: Slate, Phyllite, Schist, Gneiss, Quartzite, and Marble.

#### References:

- 1. Ravindrakumar (2018) Fundamentals of Historical Geology and Stratigraphy of India, Newage Publications.
- 2. Ram S. Sharma and Anurag Sharma (2013) Crystallography and Mineralogy Concepts and Methods. Textbook Series, Geological Society of India, Bangalore
- 3. R.N. Hota (2012) Practical approach to Mineralogy and Crystallography, CBS Publications & Distributions.
- 4. Perkin D. (2010) Mineralogy, Pearson.

- 5. Sengupta S.M. (2007) Introduction to Sedimentology (2nd Edition), CBS Publishers and Distributors, New Delhi.
- 6. Parbin Singh (1985) Textbook of Engineering and General Geology.
- 7. Mukherjee, P.K. (1984) A textbook of Geology.

### Web Reference

- <a href="https://solarsystem.nasa.gov/solar-system/our-solar-system/in-depth/#:~:text=Formation-Formation,spinning%2C%20swirling%20disk%20of%20material">https://solarsystem.nasa.gov/solar-system/our-solar-system/in-depth/#:~:text=Formation-Formation,spinning%2C%20swirling%20disk%20of%20material</a>.
- <a href="http://web.arc.losrios.edu/~borougt/GeologicStructuresDiagrams.htm#:~:text=FOLD%3A%20Permanent%20wavelike%20deformation%20in,a%20rock%20without%20noticeable%20movement.">http://web.arc.losrios.edu/~borougt/GeologicStructuresDiagrams.htm#:~:text=FOLD%3A%20Permanent%20wavelike%20deformation%20in,a%20rock%20without%20noticeable%20movement.</a>
- <a href="https://geologyscience.com/geology/stratigraphy/">https://geologyscience.com/geology/stratigraphy/</a>
- https://uhlibraries.pressbooks.pub/historicalgeologylab/chapter/chapter5-stratigraphy/
- https://opengeology.org/Mineralogy/11-crystallography/

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# **B.Sc. GEOGRAPHY- FIRST YEAR: II SEMESTER (DISTANCE MODE)**

பாடப்பெயர்

தமிழ் - I (COURSE TITLE)

பாடக்குறியீடு(COURSE

BFTM-02

CODE)

பாடகற்றல்அளவெண்

(COURSE CREDIT)

3 Credits

# பாடநோக்கங்கள் (COURSE OBJECTIVES)

1. தமிழ் இலக்கியங்களைஅறிமுக நோக்கில் எடுத்துரைத்தல்

2. மொழித்திறன், மொழியறிவு, இலக்கியப் பொது அறிவுபெறும் வகையில் விவரித்தல்

### பாடத்தினைப்படிப்பதால்விளையும்பயன்கள் (COURSE OUTCOME

- 1. தமிழ்உரைநடை பற்றியும், ஜெயகாந்தனின் சிறுகதைகள் பற்றியும் எடுத்துரைப்பர்.
- 2. தமிழ்பற்றியும் அலுவலகத் தொடர்பு மடல்கள் எழுதுவது எப்படி என்பது பற்றியும், மொழியை திறம்படஎவ்வாறு பயன்டுத்துவது என்பது பற்றியும் எடுத்துரைப்பர்.

### பிரிவு – 1 ஜெயகாந்தனின் "நான் இருக்கிறேன்" – சிறுகதை

தமிழ் உரைநடையில் சிறுகதை வளர்ச்சி – தமிழில் கதை இலக்கியத்தோற்றம், தமிழ்ச்சிறுகதைகளின் தோற்றமும் வளர்ச்சியும், சிறுகதை இலக்கணம் – தமிழ்ச்சிறுகதைகளில்ஜெயகாந்தன் – ஜெயகாந்தன்சிறுகுறிப்பு – கதை அரங்கம் அறிமும், நான் இருக்கிறேன்கதைச் சுருக்கம் – நான் இருக்கிறேன் சிறுகதை – வியாதிக்காரன் அனுபவங்கள், சாகக்கற்றுக்கொடுத்தநொண்டி, வாழக்கற்றுக்கொடுத்த வியாதிக்காரன், நான்இருக்கிறேன் அம்மா, -நான் இருக்கிறேன் – சிறுகததைத் திறனாய்வு.

பிரிவு - 2 வா.செ.குழந்தைசாமியின்அறிவியல் தமிழ் ஆக்கம்இற்றை நிலை

அறிவியல் தமிழ் - இயற்றுதல் அறிந்தோம் புனைதல் இல்லை - தமிழில்அறிவியல்இலக்கியம்படைப்போம் -வா.செ. குழந்தைசாமி -அறிமுகம் - அறிவியல் தமிழ் - எந்தத்துறைகளைக்குறிக்கும் - அறிவியல் தமிழைஉள்ளடக்கியது - தோற்றம் - கலைச்சொல்லாக்கப் பணி - விடுதலைக்குமுன் - விடுதலைக்குப்பின் -பாடநூல் நிறுவனத்தின் பங்கு - பதிப்பகங்களின் பங்கு - பல்கலைக்கழகங்களின் பங்கு - இதழ்களின் பங்கு -இலங்கைத்தமிழரின் பங்கு - கருத வேண்டியவை.

பிரிவு - 3 சமய இலக்கியக்காலம் (கி.பி.700 - கி.பி1100)

தமிழில் சமய இலக்கியங்கள் - சமணஇலக்கியத் தோற்றம் - பௌத்தஇலக்கியத்தோற்றம் - தமிழில்பௌத்த இலக்கியங்கள் - வைணவ இலக்கியங்கள் - சைவஇலக்கியத் தோற்றம் - தமிழில்சைவ இலக்கியங்கள் -வைணவஇலக்கியத் தோற்றம் - தமிழில்வைணவ இலக்கியங்கள் - தமிழில்இசுலாமிய இலக்கியங்கள் - தமிழில் கிறிஸ்தவ இலக்கியங்கள்.

பிரிவு - 4 சிற்றிலக்கியக்காலம் (கி.பி. 700 - கி.பி. 1400)

சிற்றிலக்கியத் தோற்றம் - சிற்றிலக்கிய வகைகள் - இலக்கண நூல்கள் - உலா - கலம்பகம் - பரணி - பிள்ளைத்தமிழ் -

கோவை – தூது.

- பிரிவு 5 உரையாசிரியர்கள் காலம் (கி.பி. 1200 கிபி. 1800)
  உரைநூல்களின் தோற்றம் பயன்கள் உரை வகைகள் நக்கீரர் இளம்பூரணர் பேராசிரியர் சேனாவரையர் நச்சினார்க்கினியர் கல்லாடர் தெய்வச்சிலையார் போன்றோர் அடியார்க்குநல்லார் பரிமேலழகர் பிரபந்தஉரையாசிரியர்கள் நன்னூல்உரையாசிரியர்கள் .
- பிரிவு 6 புத்திலக்கியக்காலம் (கி.பி. 1800 கிபி2000) தமிழில் புதினம் - தமிழில் சிறுகதை - தமிழில்புதுக்கவிதைகள் - தமிழில்உரைநடைநாடகங்கள் - புதினங்கள் -சிறுகதைகள் - இலக்கியங்கள் - மரபுக் கவிதை இலக்கியங்கள் - புதுக்கவிதை இலக்கியங்கள் - தமிழில்ஐக்கூக் கவிதைகள்.
- பிரிவு 7 கருத்துப்பரிமாற்றமொழித்திறன் கருத்து விளக்கக் கட்டுரைகள் - செய்திக் கட்டுரைகள் - சொற்பொழிவு - குழுவிவாதங்கள் - நண்பர்களுடன் உரையாடும் திறன் - கணினித் தமிழ் - கட்டுரை - பெண்ணியம் - தலைப்பு - தேர்ந்தெடுக்கும் முறை - தகவல்கள் சேகரிக்கும் முறை - தகவல் திரட்டல் - நகைச்சுவைத் திறன் - அவை அறிதல் - உச்சரிப்புக் கவனம் - குழு விவாதஅமைப்பும்குறிக்கோளும் - உரையாடலில் - சுயபுராணம் தவிர்த்தல் - உடன்பட வைக்கும் நாகரிக உத்தி.
- பிரிவு 8 அலுவலகத்தொடர்பு மடல்கள் நட்புறவு மடல்கள் - வேண்டுதல் மடல்கள் - குறை தெரிவிக்கும் / புகார் மடல்கள் - கருத்து மடல்கள் - விண்ணப்ப மடல்கள் - அலுவலகத் தொடர்பு மடல்கள் - விண்ணப்பமடலின்படிநிலைகள் - தன்குறிப்பு விவரங்கள் -விண்ணப்பமடலின் வடிவமைப்பு - விண்ணப்பமடல்எழுதும் முறை - குறிப்பு - வரைவு - கடிதம் - குறிப்பு மடல் -அலுவலக ஆணை - நேர்முகக்கடிதம்.
- பிரிவு 9 எழுத்து சொல் பிழைகளும் இருத்தமும் ஒலி மயக்கம் தரும் எழுத்துக்கள் - ர,ற ஒலி மயக்கம் - ந, ன,ண ஒலி மயக்கம் - ல,ள,ழ,ஒலி மயக்கம் - சொல் முதலில் வரும் எழுத்து மரபுகள் - சொல் இடையில் வரும் எழுத்துமரபுகள் - சொற்களின் சந்திப்பு மரபுகள் -வேற்றுமைப்புணர்ச்சியும்அல்வழிப்புணர்ச்சியும் - உயிர்முன் உயிர் புணர்தல் - குற்றியலுகரப் புணர்ச்சி - வல்லின ஒற்று மிகும்இடங்களும்மிகாஇடங்களும்.
- பிரிவு 10 இலாக்கியஅறிவுவினா விடை பாடப்பகுதிதொடர்பானவை - பொதுவான தமிழ் இலக்கியம் தொடர்பானவை. பார்வை நூல்கள்:
  - 1. மு.வரதராசன், தமிழ் இலக்கிய வரலாறு, சாகித்ய அக்காதெமி, புதுடெல்லி.
  - 2. மது.ச. விமலானந்தன், தமிழ் இலக்கிய வரலாறு, மீனாட்சி புத்தக நிலையம், மதுரை.
  - 3. தமிழண்ணல், புதிய நோக்கில் தமிழ் இலக்கிய வரலாறு, மீனாட்சி புத்தக நிலையம், மதுரை.
  - 4. தமிழண்ணல், இனிய தமிழ்மொழியின் இயல்புகள் -1,2,3 பகுதிகள், மீனாட்சி புத்தக நிலையம், மதுரை.
  - 5. முத்து கண்ணப்பன், தி.. தமிழில் தவறுகளைத் தவிப்போம், பாரிநிலையம், 184, பிராட்வே, சென்னை.
  - 6. கீ.இராமலிங்கனார், தமிழில் எழுதுவோம், கழக வெளியீடு, சென்னை.
  - 7. செ.முத்துவீராசாமி நாயுடு, ஆவணங்களும் பதிவுமுறைகளும், கழக வெளியீடு, சென்னை.
  - 8. டாக்டர்சு. பாலசுப்பிரமணியன், தகவல் தொடர்புக் கல்வி, மாநிலப் பள்ளிசாராக் கல்விக் குருவூலம், சென்னை.
  - 9. எஸ்.கலைவாணி, இதழியல் உத்திகள், பராசக்தி வெளியீடு, குற்றாலம்.
  - 10. டாக்டர்அ. சாந்தா, டாக்டர் வீ. மோகன், மக்கள் ஊடகத் தொடர்பியல் புதிய பரிமாணங்கள், மீடியாபப்ளிகேஷன்ஸ், மதுரை.

| 12. மு | . முத்துக்கா | ளத்தி, பேசுவத | ு எப்படி, கண் | ணம்மாள் பதிப் | ப்பகம், பாரி நின | லயம், சென்னை | т. |
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# **B.Sc GEOGRAPHY- FIRST YEAR: II SEMESTER (DISTANCE MODE)**

COURSE TITLE : Foundation in English-II (Literature and Use of English)

COURSE CODE : BFEG-2

COURSE CREDIT : 3 Credits

### **COURSE OBJECTIVES**

While studying the Foundation in English-II (Literature and Use of English), the student shall be able to:

- To cultivate the creativity among the learners
- To improve the reading skills of the learners
- To enhance the vocabulary of the learners
- To develop pronunciation skills
- To imbibe the use of internet for developing language skills

### **COURSE OUTCOMES**

After completion of the Foundation in English-II (Literature and Use of English), the student will be able to:

- critically evaluate the literary texts
- read the passages effectively
- speak with good accent
- communicate through online

# **Block: 1Literary Texts**

Rabindranath Tagore's Sacrifice and John Donne's The Sun Rising

## **Block: 2 Reading Comprehension**

Reading passages-Preparing a glossary from passage- reading the meaning- respond to questions

### **Block: 3 Vocabulary and Grammar**

Synonyms and Antonyms- Homophones-Making of Nouns-Making of Adjectives-Compound Words-Phrases and Idioms-Words often confused-Spelling- Tenses

### **Block: 4 Pronunciation and Spoken English**

Importance of English-Pronunciation: An Exposition-Speech Sounds-Sounds and Spelling: The Relationship-Attributes of Good Speech-Dialogue Situations/ Situational Dialogues

# **Block: 5 The Internet English**

Email-Chat Groups-Virtual Words-The Web-Commentary

# **References:**

- 1. Balasubramanian T. English Phonetics for Indian Students A Workbook. 2016.
- 2. Daniel Jones. Cambridge English Pronouncing Dictionary. Cambridge University Press, 2011.
- 3. Tagore, Rabindranath. Sacrifice and Other Plays. Niyogi Books, 2012.

# **Web Resources:**

- 1. <a href="https://www.poetryfoundation.org/podcasts/75363/the-sun-rising">https://www.poetryfoundation.org/podcasts/75363/the-sun-rising</a>
- 2. https://nptel.ac.in/courses/109/103/109103135/
- **3.** <a href="https://nptel.ac.in/content/storage2/courses/109106085/downloads/03-%20Phonetics%20and%20Phonology-%20week%203.pdf">https://nptel.ac.in/content/storage2/courses/109106085/downloads/03-%20Phonetics%20and%20Phonology-%20week%203.pdf</a>
- 4. https://nptel.ac.in/courses/109/106/109106085/
- 5. <a href="https://nptel.ac.in/courses/109/107/109107172/">https://nptel.ac.in/courses/109/107/109107172/</a>



# **B.Sc GEOGRAPHY- FIRST YEAR: II SEMESTER (DISTANCE MODE)**

COURSE TITLE : Climatology and Oceanography

COURSE CODE : BGEOS 21

COURSE CREDIT : 4 Credits

## **COURSE OBJECTIVES**

While studying the Climatology and Oceanography, the student shall be able to:

CO1 Describe the scope and contents of climatology

**CO2** Explain the Atmospheric circulation

**CO3** Classify the Humidity

**CO4** Classification of Climate

**CO5** Role of Ocean on climate.

### **COURSE OUTCOMES**

After completion of the Climatology and Oceanography, the student will be able to:

**CLO1** Insight climate and weather and the factors, distribution of temperature and heat budget.

**CLO2** Classifying the atmospheric pressure, wind and Indian monsoon

**CLO3** Identifying different forms and types of humidity and fronts.

**CLO4** Comparing the types of climatic classifications

**CLO5** Analysing the surface configuration, salinity, and ocean circulation.

### **Syllabus Details**

# **Block 1: Scope and content of Climatology**

- 1. Definition weather and climate, Structure of the atmosphere –
- 2. Insolation, Horizontal and vertical distribution of Temperature
- 3. Heat budget.

# **Block 2: Atmospheric Circulations**

- 4. Atmospheric Pressure horizontal distribution of pressure.
- 5. Wind and Types: Planetary winds, periodic winds, Local winds, cyclones and types
- 6. Indian Monsoon

### **Block 3: Humidity:**

- 7. Forms and Types Condensation; Clouds and its types
- 8. Precipitation: Types and Distribution.

9. Air Masses and Front Types.

### **Block 4: Classification of Climate**

- 10. Koppen's Classification of Climate
- 11. Thorthwait's classification of Climate
- 12. Recent Theories of Indian Monsoon

# **Block 5: Importance of Ocean**

- 13. Surface configuration the ocean floor
- 14. Salinity in the seas and oceans; Coral reefs and types.
- 15. Circulation of oceanic water: waves, tides and currents
- 16. currents of the Atlantic, Pacific and Indian Ocean

### References

- 1. Barry, R. G., and Chorley, R. J., (2009): Atmosphere, Weather and Climate (9th Edition), Routledge, New York.
- 2. Lal, D.S. (1996), Chaitanya Publishing House, Allahabad.
- 3. Critchfield, H. J., (1987): General Climatology, Prentice-Hall of India, New Delhi
- 4. Sverdrup, K. A. and Armbrust, E. V., (2008): An Introduction to the World Ocean, McGraw Hill, Boston.
- 5. Pinet, P. R., (2008): Invitation to Oceanography (Fifth Edition), Jones and Barlett Publishers, USA, UK and Canada.

### **Web Reference**

- <a href="https://rwu.pressbooks.pub/webboceanography/chapter/8-1-earths-heat-budget/">https://rwu.pressbooks.pub/webboceanography/chapter/8-1-earths-heat-budget/</a>
- <a href="https://www.pmfias.com/temperature-distribution-earth-heat-budget-heat-balance-seasonal-temperature-distribution/">https://www.pmfias.com/temperature-distribution-earth-heat-budget-heat-balance-seasonal-temperature-distribution/</a>
- https://www.geographynotes.com/articles/humidity-and-precipitation-useful-notes/816
- http://www.physicalgeography.net/fundamentals/7v.html

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## **B.Sc GEOGRAPHY- FIRST YEAR: II SEMESTER (DISTANCE MODE)**

COURSE TITLE : Practical: Mapping Techniques-1

COURSE CODE : BGEOS P1

COURSE CREDIT : 2 Credits

## **COURSE OBJECTIVES**

While studying the Mapping Techniques-1, the student shall be able to:

- CO1 Determine the construction and conversion of Map scale
- CO2 Demonstrate the Measurement in map
- CO3 Representation of Climatic data
- CO4 Representation of Rainfall and Wind-rose Diagram
- CO5 Representation of Relief features

### **COURSE OUTCOMES**

After completion of the Mapping Techniques-1, the student will be able to:

- CLO1 Demonstrating the construction and conversion of Map scale
- CLO2 Demonstrating the Measurement of distance, area, reduction, and enlargement of map
- CLO3 Constructing various climatic diagrams
- CLO4 Constructing Rainfall and Wind-rose Diagram
- CLO5 Constructing of various Relief features

## **Syllabus Details**

### **Block 1: Map Scale:**

- 1. Determination of Map Scale
- 2. Construction of Graphic Scale
- 3. Construction of Diagonal Scale
- 4. Conversion of Map Scales

## **Block 2: Measurement**

- 5. Measurement of Distances and Areas on Maps
- 6. Enlargement and Reduction of Maps

## **Block 3: Climatic diagram:**

7. Representation of Climatic Data by Isopleths

- 8. Climographs
- 9. Columnar Diagrams

# **Block 4: Rainfall and Wind-rose Diagram**

- 10. Rainfall Dispersion Diagrams
- 11. Wind-rose Diagrams
- 12. Synoptic Weather Charts

## **Block 4: Representation of Relief**

- 13. Preparation of a Contour Map
- 14. Representation of Relief Features by Contours
- 15. Drawing of Profiles
- 16. Drawing of Hypsometric Curves

#### Class Record:

Each student will submit a record containing 10 exercises minimum of two from each block.

#### **References:**

- 1. Ajai, S. G. and Sanjaya, S.G. (2009) Statistical Methods for Practice and Research, Sage Publications, New Delhi.
- 2. Berry, B. J. L. and Marble, D. F. (eds.): Spatial Analysis—A Reader in Geography.
- 3. Sharma, J. P., (2010) PrayogicBhugol, Rastogi Publishers, Meerut.
- 4. Singh, R. L. and Singh, R. P. B., (1999): Elements of Practical Geography, Kalyani Publishers, New Delhi.
- 5. Misra, R.P., (2014): Fundamentals of Cartography (Second Revised and Enlarged Edition), Concept Publishing, New Delhi.
- 6. Robinson, A. H., (2009): Elements of Cartography (6th Edition), John Wiley and Sons, New York.
- 7. Sarkar, A., (2015): Practical geography: A systematic approach, Orient Black Swan Private Ltd., New Delhi.

#### Web Resource

- 1. https://www.sfei.org/book/export/html/1321
- 2. https://ncert.nic.in/textbook/pdf/legy303.pdf
- 3. https://www.epa.gov/sites/default/files/2019-01/documents/how to read a wind rose.pdf
- **4.** <a href="https://www.brainkart.com/article/Methods-of-Representing-Relief-Features\_33844/#:~:text=The%20important%20methods%20of%20representing,the%20relief%20of%20the%20land.">https://www.brainkart.com/article/Methods-of-Representing-Relief-Features\_33844/#:~:text=The%20important%20methods%20of%20representing,the%20relief%20of%20the%20land.</a>

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# **B.Sc GEOGRAPHY- FIRST YEAR: II SEMESTER (DISTANCE MODE)**

**COURSE TITLE** : Statistics

COURSE CODE : BGEOS P2

COURSE CREDIT : 3 Credits

#### **COURSE OBJECTIVES**

While studying the **Statistics**, the student shall be able to:

**CO1** Significant of Statistical Methods in Geography

CO2 Provide a shorthand way of describing and summarizing data

CO3 Distinguish between the Sampling types

CO4 Identifying logical and mathematical reasoning from given principles or assumptions.

CO5 Verifying the Association and Correlation between the data sets.

#### **COURSE OUTCOMES**

After completion of the **Statistics**, the student will be able to:

- **CLO1** Inciting the uses of statistical methods, sources, and scale of measurement in Geography.
- CLO2 Practicing the cross tabulation, Central Tendency, Standard Deviation, and summarizing data
- CLO3 Comparing between the Purposive, Random, Systematic and Stratified Sampling
- **CLO4** Practicing the methods of Probability and Normal Distributions
- **CLO5** Analyzing the Correlation and regression between the data sets.

## **Syllabus Details**

### **Block 1: Use of Data in Geography:**

- 1. Significance of Statistical Methods in Geography
- 2. Sources of Data
- 3. Scales of Measurement (Nominal, Ordinal, Interval and Ratio).

# **Block 2: Tabulation and Descriptive Statistics:**

- 4. Frequencies Deciles, Quartiles
- 5. Cross Tabulation
- 6. Central Tendency: Mean, Median and Mode,
- 7. Centro-graphic Techniques, Dispersion
- 8. Standard Deviation, Variance and Coefficient of Variation.

## **Block 3: Sampling:**

- 9. Purposive
- 10. Random
- 11. Systematic
- 12. Stratified

### **Block 4: Theoretical Distribution:**

- 13. Probability
- 14. Normal Distributions

#### **Block 5: Association and Correlation:**

- 15. Rank Correlation
- 16. Product Moment Correlation
- 17. Simple Regression.

#### **References:**

- 1. Ajai, S. G. and Sanjaya, S.G. (2009) Statistical Methods for Practice and Research, Sage Publications, New Delhi.
- 2. Hammond, P. and McCullagh, P. S., (1978): Quantitative Techniques in Geography: An Introduction, Oxford University Press.
- 3. Pal, S. K., (1998): Statistics for Geoscientists, Tata McGraw Hill, New Delhi.
- 4. Rogerson, P. A., (2001) Statistical Methods for Geography, Sage Publications, New Delhi.
- 5. Sarkar, A. (2013): Quantitative geography: techniques and presentations. Orient Black Swan Private Ltd., New Delhi
- 6. Shinha, Indira., (2007): Sankhyikibhugol (Hindi). Discovery Publishing House, New Delhi.

## **Web Sources**

- 1. <a href="https://statisticsbyjim.com/basics/nominal-ordinal-interval-ratio-scales/">https://statisticsbyjim.com/basics/nominal-ordinal-interval-ratio-scales/</a>
- 2. https://www.scribbr.com/statistics/central-tendency/#
- 3. https://towardsdatascience.com/8-types-of-sampling-techniques-b21adcdd2124
- 4. https://unacademy.com/content/ca-foundation/study-material/statistics/theoretical-distributions/
- 5. https://www.theanalysisfactor.com/the-difference-between-association-and-correlation/

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# B.Sc. GEOGRAPHY- FIRST YEAR: III SEMESTER (DISTANCE MODE)

பாடப்பெயர்

தமிழ் - 2

(COURSE TITLE)

பாடக்குறியீடு(COURSE

BFTM-03

CODE)

பாடகற்றல்அளவெண் (COURSE CREDIT)

3 Credits

## பாடநோக்கங்கள் (COURSE OBJECTIVES)

தமிழிலுள்ளசங்க இலக்கியம், காப்பிய இலக்கியம், நீதி இலக்கியம் குறித்து அறிமுக நிலையில் மாணவர்களுக்கு அறிமுகம் செய்வதோடு, தமிழ் இலக்கிய வரலாறு குறித்தும் அறிமுகம் செய்தல

## பாடத்தினைப்படிப்பதால்விளையும்பயன்கள் (COURSE OUTCOME

தமிழிலுள்ளசங்க இலக்கியம், காப்பிய இலக்கியம், நீதி இலக்கியம் குறித்து அறிமுக நிலையில் மாணவர்களுக்கு அறிமுகம் செய்வதோடு, "தமிழ் இலக்கிய "வரலாறு குறித்தும் எடுத்துரைப்பார்கள். அறிமுகம்செய்தல்.

# பிரி<mark>வு - 1 எட்டுத்தொகை - புறநானுறு</mark>

எட்டுத்தொகைஅறிமுகம் - புறநானூறு - அதியமான் நெடுமானஞ்சியை ஔவையார் பாடியது(புறம். 91) -வேள்பாரியைக் கபிலர் பாடியது (புறம். 107) - வையாவிக்கோப்பெரும்பேகனைப் பரணர் பாடியது (புறம். 142) - பாண்டியன் ஆரியப்படை கடந்த நெடுஞ்செழியன் பாடல் (புறம். 183) - சேரமான் கணைக்கால் இரும்பொறை பாடல் (புறம். 74) - பொன்முடியார் பாடல் (புறம். 312) - ஔவையார் பாடல் (புறம். 91) -பெருங்கோப்பெண்டு பாடல் (புறம். 248)- கணியன்பூங்குன்றனார் பாடல் (புறம். 192) -நரிவெருஉத்தலையார் பாடல் (புறம். 195) - தொடித்தலைவிழுத்தண்டினார் பாடல் (புறம். 243) -பூதப்பாண்டியன்மனைவிபெருங்கோப்பெண்டு பாடல் (புறம். 248)

#### பிரிவு - 2 நற்றிணை, குறுந்தொகை

அகத்திணைபாடல்கள் - அன்பின்ஐந்திணை - நற்றிணை - குறுந்தொகை - பாடப்பகுதி நற்றிணையில்குறிஞ்சி (1) – முல்லை (142) - மருதம் (210) – நெய்தல் (172) - பாலை (284) - குறுந்தொகையில் குறிஞ்சி (40) - முல்லை (167) - மருதம் (8) - நெய்தல் (290) – பாலை(135).

#### பிரிவு - 3 கலித்தொகை

கலித்தொகை - ஐந்திணைபாடியபுலவர்கள் – பாலைக்கலி (9)- பாலைபாடியபெருங்கடுங்கோ -குறிஞ்சிக்கலி கபிலர் பாடல்(51) - நெய்தல்கலிநல்லந்துவனார்பாடல் (133).

#### பிரிவு - 4 பத்துப்பாட்டு – நெடுநல்வாடை

பத்துப்பாட்டு அறிமுகம் - நெடுநல்வாடை - இரண்டு களம்கொண்ட நாடகம் போன்றது - நெடுநல்வாடை - அகமாபுறமா? - வாடைக்கால வருணனை - அரண்மனைத்தோற்றம் - அந்தப்புர அமைப்பு -அரசியின்இல்லமும்படுக்கையும் - புனையாஓவியம்கடுப்ப அரசி - தோழியர், செவிலியர்அரசியை ஆற்றுதல் - உரோகிணியை நினைத்து அரசியின்பெருமுச்சு - பாசறையில் அரசன் - முன்னோன் நள்ளென்யாமத்தும்பள்ளிக்கொள்ளான் முறைமுறைகாட்டல் நெடியவாடை பிரிவுத்துயர்ப்படும்அரசிக்கு பாசறையில்பணிகொட்டும் இரவிலும் புண்பட்டவீரரைப்பார்க்கவந்தஅரசனுக்குநெடுநல்வாடைபெயர்ப்பொருத்தம்

#### பிரிவு - 5 திருக்குறள்

பதினென்கீழ்க்கணக்கு - அறிமுகம் - திருக்குறள் - முப்பால் - பாடப்பகுதி - தீமையிலாத சொல்லுதல் வாய்மை -நெஞ்சமும்வாய்மையும் - வாய்மை எல்லா அறமும் தரும் - அகம் தூய்மை - முயற்சிப்பதுசிறப்பு முயற்சியில்லாதவனது நன்மை - வறுமைக்குக் காரணம் - முயற்சி விடற்பாலதுஅன்று தலைவன் அறிதல் அறிதல் தலைவியின்குறிப்பினைத் நாணமும்மகிழ்ச்சியும் குறிப்பறிதல் அயலவர்போல்சொல்லினும் நகைப்பின்நன்மைக் அவள் குறிப்பு தோழிதனக்குள்ளேசொன்னது.

### பிரிவு - 6 நாலடியார், பழமொழி நானூறு

- செல்வம் சகட்க்கால் போல வரும் - பெண் கல்வி - கல்வி அழகே அழகு - கல்வி கரையிலகற்பவர்நாள்சில நாய் அனையார்கேண்மை - கால்கால்நோய்காட்டுவர்பொதுமகளிர் - குலவிச்சைகல்லாமல்பாகம்படும் - நாய் பெற்ற தெங்கம் பழம் - நுணலும் தன் வாயால் கெடும் -நிறைகுடம் நீர்த்ளும்பல்இல் -இறைத்தோறும்ஊறும் கிணறு

# பிரிவு - 7 ஏலாதி, திரிகடுகம், ஆசாரக்கோவை

அன்புடையார்க்குஉள்ள ஆறு குணம் - எழுத்தின்வனப்பே வனப்பு - யாருக்கெல்லாம் ஈதல் வேண்டும்? திரிகடுகம் போலும் மருந்து - இம்மூன்றும் நன்மை பயத்தல்இல - இவர் மூவர் பெய் எனப்பெய்யும் மழை - முந்தையோர் கண்ட முறை - என்றும் அசையாத உள்ளத்தவர் - திறத்துளிவாழ்தும் என்பார் -பேதைகள்அல்லார்புகாஅர்.

#### பிரிவு - 8 இன்னாநாற்பது, இனியவை நாற்பது

கடனுடையார்காணப் புகல் - உணர்வார் உணராக்கடை - யாம் என்பவரொடு நட்பு -இளமையுள்மூப்புப்புகல் - தொன்மை உடையார் கெடல் - எனைமாண்பும் தான் இனிது - ஈதல் எத்துணையும்ஆற்றஇனிது - திறம்தெரிந்து வாழ்தல் இனிது - அறிந்துஉரைத்தல் ஆற்ற இனிது -கற்றலின்காழ்இனியதுஇல்.

### பிரிவு - 9 சிலப்பதிகாரம் – கனாத்திறம்உரைத்த காதை

சிலப்பதிகாரம் - அமைப்பியல் விளக்கம் - காப்பியக்கதைச் சூழல் - காதையின்கதைச்சுருக்கம் -அகனகர் வருணனை - மாலதி பாலளிக்கப் பாலகன் சோர்தல் - பாசண்டச்சாத்தற்குப்பாடுகிடந்த மாலதி -இடுபிணம் தின்னும் இடாகினிப் பேய் - பாசண்டச்சாத்தனின்அருளுதவி -தேவந்தி கதை - கண்ணகி தான்கண்டகனவுரைத்தல் - பீடு அன்று - கோவலன் வருகை -சிலம்புளகொண்ம்.

### பிரிவு - 10 மணிமேகலை – ஆபுத்திரன் திறம் அறிவித்த காதை

மணிமேகலைகர்ப்பிய அமைப்பு - முன்கதைச் சுருக்கம் - கதை நிகழும் சூழல் - காதையின்கதைச்சுருக்கம் -அபஞ்சிகன் மனைவி சாலி ஈன்ற குழவி - ஆ பாலுட்டி வளர்த்தல் - ஆமகன் அல்லன் என் மகன் -ஆபுத்திரன் கல்வி கற்றல் - புலைசூழ வேள்வி - நள்ளிருளில்கொண்டுநடக்குவன் - நீ மகன் அல்லாய்நிகழ்ந்ததைஉரையாய் - இதனொடு வந்த செற்றம் என்னை - சிறியை நீ, அவஆமகன் அதற்கு ஒத்தனை - ஆவொடு வந்த அழிகுலம் உண்டோ?.

#### பார்வைநூல்கள்:

- புறநானூறுமூலமும் உரையும், (இரண்டு தொகுதிகள்) ஒளவை சு. துரைசாமிப்பிள்ளை உரை, கழக வெளியீடு, சென்னை.
- 2. நற்றிணைமூலமும் உரையும், (இரண்டு தொகுதிகள்) ஒளவை சு. துரைசாமிப்பிள்ளை உரை, அருணா பப்ளிகேஷன்ஸ், 13-1 உஸ்மான் சாலை, சென்னை.
- 3. குறுந்தொகைமூலமும் உரையும், டாக்டர் உ.வே. சாமிநாதையர் உரை, கவீர் அறக்கட்டளை, சென்னை.
- கலித்தொகைமூலமும் உரையும், பெருமழைப்புலவர் பொ.வே. சோமசுந்தரனார் உரை, கழக வெளியீடு, சென்னை.
- 5. நெடுநல்வாடைமூலமும் உரையும், பெருமழைப்புலவர் பொ.வே. சோமசுந்தரனார் உரை, கழக வெளியீடு, சென்னை.
- 6. திருக்குறள் பரிமேலழகர் உரையுடன், ஸ்ரீ காசி மடம், திருப்பனந்தாள்.
- 7. பதினென்கீழ்க்கணக்கு, நியூசெஞ்சுரி புக ஹவுஸ் பிரைவேட் லிமிடெட், சென்னை.
- 8. மு.வரதராசன், தமிழ் இலக்கிய வரலாறு, சாகித்ய அக்காதெமி, புதுடெல்லி,
- 9. மது.ச. விமலானந்தன், தமிழ் இலக்கிய வரலாறு, மீனாட்சி புத்தக நிலையம், மதுரை.
- 10. தமிழண்ணல், புதிய நோக்கில் தமிழ் இலக்கிய வரலாறு, மீனாட்சி புத்தக நிலையம், மதுரை.



### **B.Sc GEOGRAPHY - SECOND YEAR: III SEMESTER (DISTANCE MODE)**

COURSE TITLE : Foundation in English-III (Soft Skills)

COURSE CODE : BFEG-3

COURSE CREDIT : 3 Credits

#### **COURSE OBJECTIVES**

While studying the Foundation in English-III (Soft Skills), the student shall be able to:

- To cultivate the positive mind
- To improve body language
- To develop interview skills
- To prepare a comprehensive CV
- To enhance interpersonal skills

#### **COURSE OUTCOMES**

After completion of the **Foundation in English-III (Soft Skills)**, the student will be able to:

- Approach the life positively
- Communicate in good manner
- Join in a team in working place
- Develop an impressive CV
- Express managerial skills

# **Block: 1 Introduction to Soft Skills**

Soft Skills: An Introduction – Definition and Significance of Soft Skills; Process, Importance and Measurment of Soft Skill Development- Self-Discovery: Discovering the Self; Setting Goals; Beliefs, Values, Attitude, Virtue. 3. Positivity and Motivation: Developing Positive Thinking and Attitude; Driving out Negativity; Meaning and Theories of Motivation; Enhancing Motivation Levels.

## **Block: 2 Body Language & Etiquettes**

Non-Verbal Communication: Importance and Elements; Body Language- Social and Business.

# **Block: 3 Group Discussion& Interview Skills**

Interviewer and Interviewee - in-depth perspectives- Before, During and After the Interview- Tips for Success- Meaning, Types and Models, Group and Ethical Decision-Making, Problems and Dilemmas in application of these skills

# Block: 4 Preparation of Curriculum Vitae' (CV)

Definition of CV and its purposes- CV versus Resume- Rules- Covering Letter

## **Block: 5 Emotional Intelligence Skills**

Meaning, History, Features, Components, Intrapersonal and Management Excellence; Strategies to enhance Emotional Intelligence.

### **References:**

- 1. Dhanavel S.P. English and Soft Skills. Orient Blackswan India, 2010.
- 2. Ghosh B.N. (Ed.) Managing Soft Skills for Personality Development. McGraw Hill India, 2012.

### Web Resources:

- 1. <a href="https://onlinecourses.nptel.ac.in/noc19">https://onlinecourses.nptel.ac.in/noc19</a> hs33/preview
- 2. <a href="https://nptel.ac.in/courses/109/107/109107121/">https://nptel.ac.in/courses/109/107/109107121/</a>



### **B.Sc GEOGRAPHY - SECOND YEAR: III SEMESTER (DISTANCE MODE)**

COURSE TITLE : Human Geography

COURSE CODE : BGEOS 31

COURSE CREDIT : 4 Credits

#### **COURSE OBJECTIVES**

While studying the **Human Geography**, the student shall be able to:

CO1 Describe the Nature and Scope of Human geography

CO2 Categorize the Space and Society

CO3 Enumerate the Population growth and distribution

CO4 Assess the Rural Settlements

CO5 Assess the Urban Settlements

### **COURSE OUTCOMES**

After completion of the **Human Geography**, the student will be able to:

CLO1 Describing the Nature and Scope of Human geography

CLO2 Categorize the Space and Society based on Cultural Regions Race, Religion and Language

CLO3 Computing the Population growth and distribution

CLO4 Appraising the Concept, Characteristics, Types, problem, and planning of Rural Settlements

CLO5 Appraising the Concept, Urbanization, Functional Classification of Urban Settlements

## **Syllabus Details**

## Block 1: Human Geography: Nature and Scope

- 1. Nature and scope of Human Geography
- 2. Major Themes
- 3. Contemporary Relevance

# **Block 2: Space and Society**

- 4. Cultural Regions
- 5. Race, Religion and Language

### **Block 3: Population**

- 6. Population Growth and Distribution.
- 7. Population Composition.
- 8. Demographic Transition Theory

#### **Block 4: Rural Settlements**

- 9. Concept, Characteristics and Factors
- 10. Types and Patterns.
- 11. Regional characteristics and Morphology
- 12. Rural problem and planning.

### **Block 5: Urban Settlements**

- 13. Concept and Characteristics
- 14. Urbanization and influencing factors
- 15. urbanization in India and World
- 16. Functional Classification of urban centers.

#### References

- 1. Chandna, R.C., (2017): Population Geography, Kalyani Publishers, New Delhi.
- 2. Daniel, P.A. and Hopkinson, M.F. (1989): The Geography of Settlement, Oliver &Boyd, London.
- 3. Hassan, M.I. (2005): Population Geography, Rawat Publications, Jaipur
- 4. Hussain, Majid., (2012): ManavBhugol, Rawat Publications, Jaipur.
- 5. Johnston, R., Gregory, D., & Pratt, G., et al. (2008): The Dictionary of HumanGeography, Blackwell Publication.
- 6. Kaushik, S.D., (2010): ManavBhugol, Rastogi Publication, Meerut.
- 7. Maurya, S.D., (2012): ManavBhugol, ShardaPustakBhawan, Allahabad.
- 8. Rozenblat., Celine., Pumain., Denise and Velasquez., Elkin Eds. (2018): International and Transnational Perspectives on Urban Systems, Springer, Japan, pages 393.
- 9. Singh, R.B., Ed. (2015): Urban Development Challenges, Risk and Resilience in Asian
- 10. Mega Cities-Sustainable Urban Future of Emerging Asian Mega Region, Springer, Tokyo, Pages 488, 2015.

#### Web Sources

- 1. https://blogs.prepladder.com/human-geography-nature-and-scope-ncert-notes-upsc/
- 2. <a href="https://egyankosh.ac.in/handle/123456789/57305">https://egyankosh.ac.in/handle/123456789/57305</a>
- 3. https://www.opengeography.org/ch-6-population--migration.html
- 4. https://unacademy.com/content/upsc/study-material/human-geography/rural-settlement-patterns/
- 5. https://www.thegeographeronline.net/urban-settlements.html

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**B.Sc GEOGRAPHY- SECOND YEAR: III SEMESTER (DISTANCE MODE)** 

COURSE TITLE : Geography of Health and Wellbeing

COURSE CODE : BGEOS 32

COURSE CREDIT : 4 Credits

#### **COURSE OBJECTIVES**

While studying the Geography of Health and Wellbeing, the student shall be able to:

CO1 Identify the concept and Perspectives on Health

CO2 Relationship between the Environmental Quality and Health

CO3 Explore the exposure and Health Risks

CO4 Distinguish between the Health and Disease Pattern in Environmental Context

CO5 Correlative the Climate Change and Human Health

## **COURSE OUTCOMES**

After completion of the **Geography of Health and Wellbeing**, the student will be able to:

- CLO1 Finding the new Perspectives on geography of Health and wellbeing
- CLO2 Analysing the relationship between the Environmental Quality and Health
- CLO3 Explore the exposure of pollution, pandemic, endemic and epidemic diseases
- CLO4 Health and Disease Pattern Communicable and Lifestyle related diseases in Environmental Context
- CLO5 Correlative the Climate Change and Human Health and health care delivery system.

### **Syllabus Details**

#### **Block 1: Perspectives on Health:**

- 1. Geography of Health and Wellbeing: Definition, concept, and Dimensions
- 2. Development and health
- 3. Driving forces in health and environmental trends
- 4. Population dynamics, urbanization, poverty, and inequality.

## Block 2: Pressure on Environmental Quality and Health:

- 1. Human activities and environmental Pressure
- 2. Land use and agricultural development
- 3. Industrialization; Transport and Energy

## **Block 3: Exposure and Health Risks:**

- 4. Air pollution, Water Pollution impacts on Health
- 5. Epidemics, Endemic and Pandemic Diseases: Covid 19.

## Block 4: Health and Disease Pattern in Environmental Context (with reference to India).

- 6. Types of Diseases and their regional pattern: Communicable
- 7. Types of Diseases and their regional pattern: Lifestyle related diseases.

# **Block 5: Climate Change and Human Health**

- 8. Changes in climate system heat and cold
- 9. Biological disease agents
- 10. Food production and nutrition
- 11. Health care delivery system

#### References

- 1. Avon, Joan, L. and Jonathan, A, Patzed (2001): Ecosystem Changes and Public Health, Baltimin, John Hopling Unit Press(ed).
- 2. Akhtar Rais (Ed.), 1990: Environment and Health Themes in Medical Geography, AshishPublishing House, New Delhi.
- 3. Avon Joan L. and Jonathan A Patzed.2001: Ecosystem Changes and PublicHealth,Baltimin,JohnHopling Unit Press(ed).
- 4. Bradley, D., 1977: Water, Wastes and Health in Hot Climates, John Wiley Chichesten.
- 5. Modelling, Boston Kluwer Academic Press.
- 6. Cliff, A.D. and Peter, H., 1988: Atlas of Disease Distributions, Blackwell Publishers, Oxford.
- 7. Gatrell, A., and Loytonen, 1998: GIS and Health, Taylor and Francis Ltd, London.
- 8. Hardham T. and TannavM., (eds): Urban Health in Developing Countries; Progress, Projects, Earthgoan, London.

#### **Web Sources**

- 1. http://www.depts.ttu.edu/geospatial/center/geog3340/documents/lectures/lecture7.pdf
- 2. https://www.cdc.gov/hrqol/wellbeing.htm
- 3. https://health.gov/healthypeople/objectives-and-data/browse-objectives/environmental-health#
- 4. https://www.eea.europa.eu/soer/2010/synthesis/synthesis/chapter5.xhtml
- 5. <a href="https://www.learner.org/series/the-habitable-planet-a-systems-approach-to-environmental-science/risk-exposure-and-health/">https://www.learner.org/series/the-habitable-planet-a-systems-approach-to-environmental-science/risk-exposure-and-health/</a>
- 6. <a href="https://www.epa.gov/climate-change/climate-change-and-human-health">https://www.epa.gov/climate-change/climate-change-and-human-health</a>
- 7. https://www.nhp.gov.in/health-and-climate-change\_pg

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**B.Sc GEOGRAPHY - SECOND YEAR: III SEMESTER (DISTANCE MODE)** 

COURSE TITLE : Geography of Tourism

COURSE CODE : BGAL21\_31

COURSE CREDIT : 3 Credits

#### **COURSE OBJECTIVES**

While studying the **Geography of Tourism**, the student shall be able to:

- CO1 To equip with a basic understanding of nature and scope, of tourisms.
- CO2 Interpretation of nature of tourism and their different patterns
- CO3 Identify the recent trends in Tourism in various level.
- CO4 Impact of tourism based on Economy, Environment and Society
- CO5 Analyzing the Tourism Infrastructure, sites, World Heritage Sites, National Geological Monuments and Policies

#### **COURSE OUTCOMES**

After completion of the **Geography of Tourism**, the student will be able to:

- CLO1 Insite the basic concepts and issues and geographical parameters
- CLO2 Interpretating of nature of tourism and their different patterns such as Cultural Tourism, Medical Tourism and Pilgrimage and Geo-tourism
- CLO3 Identifying the recent trends in Tourism in the level of International and Regional and Domestic (India)
- CLO4 Analyzing the Economic, Environmental and Societal impacts on tourism
- CLO5 Analyzing the Tourism Infrastructure, sites, World Heritage Sites, National Geological Monuments and Policies.

### **Syllabus Details**

# **Block 1: Scope and Nature**

- 1. Concepts and Issues
- 2. Tourism, Recreation and Leisure Interrelations
- 3. Geographical Parameters of Tourism by Robinson.

### **Block 2: Trends and Patterns**

- 4. Nature of Tourism and Cultural Tourism,
- 5. Medical Tourism and Pilgrimage and Geo-tourism.

#### **Block 3: Recent Trends of Tourism**

- 6. International and Regional and Domestic (India) level
- 7. Eco-Tourism and Sustainable Tourism
- 8. Meetings Incentives Conventions and Exhibitions

## **Block 4: Impact of Tourism**

- 9. Economy
- 10. Environment
- 11. Society

## **Block 5: Tourism in India:**

- 12. Tourism Infrastructure.
- 13. Case Studies of Himalaya, Desert and Coastal Areas
- 14. India's World Heritage Sites
- 15. National Geological Monuments
- 16. National Tourism Policy

#### **References:**

- 1. Alan, A. Lew, (2017): New Research Paradigms in Tourism Geography, Routledge.
- 2. Dhar, P.N., (2006): International Tourism: Emerging Challenges and Future Prospects, Kanishka, New Delhi.
- 3. Hall, M., and Stephen, P., (2006): Geography of Tourism and Recreation Environment, Place and Space, Routledge, London.
- 4. Kamra, K. K., and Chand, M., (2007): Basics of Tourism: Theory, Operation and Practise, Kanishka Publishers, Pune.
- 5. Nelson, V., (2017): An Introduction to the Geography of Tourism, Rowman & Littlefield.
- 6. Singh, Jagbir., (2014): "Eco-Tourism", I.K. International Pvt. Ltd. New Delhi, India.
- 7. Tourism Recreation and Research Journal, Centre for Tourism Research and Development, Lucknow.
- 8. Widawski, K., and Wyrzykowski, J., (2017): The Geography of Tourism of Central and Eastern European Countries, Springer.

#### **Web Sources**

- 1. https://regionalhindi.blogspot.com/2020/06/robinson-geographical-parameters-of.html
- 2. <a href="https://www.goodfellowpublishers.com/free\_files/Chapter%203-3eafc3ad2892037d0881f6276a8499c0.pdf">https://www.goodfellowpublishers.com/free\_files/Chapter%203-3eafc3ad2892037d0881f6276a8499c0.pdf</a>
- 3. <a href="https://www.tutorialspoint.com/tourism\_management/tourism\_management\_trends\_and\_future.htm">https://www.tutorialspoint.com/tourism\_management/tourism\_management\_trends\_and\_future.htm</a>
- 4. <a href="https://www.oecd.org/els/health-systems/48723982.pdf">https://www.oecd.org/els/health-systems/48723982.pdf</a>
- 5. <a href="https://tourism.gov.in/sites/default/files/2021-05/INDIA%20TOURISM%20STATISTICS%202020.pdf">https://tourism.gov.in/sites/default/files/2021-05/INDIA%20TOURISM%20STATISTICS%202020.pdf</a>
- 6. <a href="https://www.nios.ac.in/media/documents/tourism\_337\_courseE/337\_Tourism\_Eng/337\_Tou



## **B.Sc. GEOGRAPHY- SECOND YEAR: IV SEMESTER (DISTANCE MODE)**

பாடப்பெயர்

(COURSE TITLE)

தமிழ் - 2

பாடக்குறியீடு(COURSE

BFTM-04

CODE)

பாடகற்றல்அளவெண்

3 Credits

(COURSE CREDIT)

#### பாடநோக்கங்கள் (COURSE OBJECTIVES)

 தமிழிலுள்ளசங்க இலக்கியம், காப்பிய இலக்கியம், நீதி இலக்கியம் குறித்து அறிமுக நிலையில் மாணவர்களுக்கு அறிமுகம் செய்வதோடு, தமிழ் இலக்கிய வரலாறு குறித்தும் அறிமுகம் செய்தல்.

# பாடத்தினைப்படிப்பதால்விளையும்பயன்கள் (COURSE OUTCOME

- l. தமிழிலுள்ளசங்க இலக்கியம், காப்பிய இலக்கியம், நீதி இலக்கியம் குறித்து அறிமுக நிலையில் மாணவர்களுக்குஅறிமுகம் செய்வதோடு, தமிழ் இலக்கிய வரலாறு குறித்தும் எடுத்துரைப்பார்கள்.
- 2. மரபுத்தொடர்கள், இணை மொழிகள் பற்றியும்எடுத்துரைப்பதோடு, ஓரங்க நாடகம், ஐக்கூ கவிதை படைக்கும் முனைப்பினையும் பெறுவார்கள்.

#### பிரிவு - 1 சீவகசிந்தாமாணி – குணமாலையார்இலம்பகம்

சீவகசிந்தாமணி - காப்பிய அமைப்பு - முன்கதைச்சுருக்கம் - இலம்பகத்தின்கதைச்சுருக்கம் - கண்ணப்பூசல் - குணமாலையும்சுரமஞ்சரியும்பொழிலாடல் - சுரமஞ்சரி சூளுரை -கண்ணப்பொடியுடன் தோழியர் - மீன்சூழ்மாமதிபோல்சீவகன் - தோழியார் வேண்டல் - சீவகன் தீர்ப்புரை - வாரம் பட்டுழித்தீயவும்நல்லவாம் - வண்டுகளின் தீர்ப்பு - இடியுண்டநாகம்போல்சுரமஞ்சரி - குணமாலையின்இனிய பண்பு.

## பிரிவு - 2 கம்பராமாயணம் – நகர்நீங்கு படலம்

கம்பராமாயணம் - முன்கதைச்சுருக்கம் - படலத்தின்கதைச் சுருக்கம் - மகளிர் அவலம் -விலங்குகளின்அவலம் - பிற மக்களின் அவலம் - மரவுரியில் இராமன் - மனத்துயரில் சீதை -வருவென்ஈண்டுவருந்தலை நீ - தீய வெஞ்சொல்செவிசுடத்தேபுவாள் - என்னை என்னை இருத்தி என்றாய் - நின் பிரிவினுஞ்சுடுமோபெருங்காடு - சீதையும் மரவுரி தரித்தல் - எல்லையற்ற இடர் தருவாய் என்றான்.

#### பிரிவு - 3 சங்ககாலம் (கி.மு. 300 – கி.பி. 100)

முச்சங்கவரலாறு - சங்கம் இருந்ததா? இல்லையா? ஒரு சங்கம் இருந்ததற்கானசான்றுகள் -எட்டுத்தொகை நூல்கள் - பத்துப்பாட்டு நூல்கள் - சங்க காலம் ஒரு பொற்காலம்

## பிரிவு - 4 பதினெண்கீழ்க்கணக்குக் காலம் (கி.பி. 100 – கி.பி. 600)

களப்பிரர்காலம் - தமிழக வரலாற்றின் இருண்ட காலம் - அகத்திணை நூல்கள் புறத்திணைநூல்களில்போர்பற்றியது - அறநூல்கள்

#### பிரிவு - 5 காப்பியகாலம் (கி.பி. 200 – கி.பி. 1100)

தமிழின்முதல் காப்பியம் - இரட்டைக்காப்பியங்கள் - ஐம்பெருங்காப்பியங்கள் - ஐஞ்சிறுங்காப்பியங்கள் -தமிழின் பிற காப்பியங்கள்.

#### பிரிவு - 6 தமிழ்இலக்கியத்தில் சமணர், பௌத்தர் செல்வாக்கு

தமிழகத்தில்சமணர் செல்வாக்கு - தமிழகத்தில்பௌத்தர் செல்வாக்கு

#### பிரிவு – 7 மரபுத்தொடர்கள், இணைமொழிகள்

எதிர்மறைக்குறிப்புத் தொடர் - இடக்கரடக்கல் - மங்கலவழக்குத் தொடர் -வசைமொழித் தொடர் -சுவைதரும்வெளிப்பாட்டுத் தொடர் - பிற மரபுத்தொடர்கள் - ஒருபொருள் இணைமொழிகள் -எதிர்நிலைஇணைமொழிகள் - பிற இணைமொழிகள் - வட்டாரஇணைமொழிகள் - கெரகீகாரமொழிகள்.

#### பிரிவு – 8 சொற்பொழிவுத்திறன் பயிற்சி

இலக்கியச்சொற்பொழிவு - சமயச் சொற்பொழிவு - அரசியல் சொற்பொழிவு - பிற சொற்பொழிவுகள் -குறிப்புகள் சேகரித்தல் - கேளாரும்வேட்பமொழியும் இறன் - நகைச்சுவைத் இறன் -ஈர்ப்புத் இறன் -

### அவிநயமும்உச்சரிப்பும்

#### பிரிவு – 9 ஓரங்க நாடகம் படைக்கும்முயற்சி

ஓரங்கநாடகம் எழுதும் படிநிலைகள் - நாடகக்கதையை முடிவுசெய்தல் - களம் பிரித்தலும்நிகழ்வுக்குறிப்பும் - உரையாடல் எழுதுதல் - நாடகப்பிரதியைச்செப்பனிடுதல் -நடிகர்கள்தேர்வு - ஒத்திகை முறைகள் - நாடக இயக்கம் - திட்டமிடுதலும்நிகழ்த்தலும் .

பிரிவு – 10 ஐக்கூக் கவிதை புனையும்பயிற்சி

ஈற்றடிஇலக்கணம் - உள்ளடக்கப்பாடுபொருள் இலக்கணம் - வெளிப்பாட்டு உத்தி -இயற்கையைப்பாடும்ஐக்கூ - வாழ்வியல்ஐக்கூ - காதல் ஐக்கூ - சென்ரியூ -எள்ளல் அல்லதுநகைச்சுவைஐக்கூ

#### பார்வைநூல்கள்:

- 1. ்மு.வரதராசன், தமிழ் இலக்கிய வரலாறு, சாகித்ய அக்காதெமி, புதுடெல்லி,
- 2. மது.ச. விமலானந்தன், தமிழ் இலக்கிய வரலாறு, மீனாட்சி புத்தக நிலையம், மதுரை.
- 3. தமிழண்ணல், புதிய நோக்கில் தமிழ் இலக்கிய வரலாறு, மீனாட்சி புத்தக நிலையம், மதுரை.
- 4. பி.எஸ்.ஆச்சார்யா, உயர்வுதரும் உரையாடல்கலை, நர்மதா பதிப்பகம், சென்னை.
- 5. மு.முத்துக்காளத்தி, பேசுவது எப்படி, கண்ணம்மாள் பதிப்பகம், பாரி நிலையம், சென்னை.
- 6. பரட்டை, நடிக்க நாடகம் எழுதுவது எப்படி? வைகறைப் பதிப்பகம், திண்டுக்கல். 1998
- 7. சே.இராமாணுஜம், நாடகப் படைப்பாக்கம் அடித்தளங்கள், எட்டாம் உலகத் தமிழ் மாநாடுபதிப்புச்சூழல் நிதி வெளியீடு, தமிழ்ப்பல்கலைக்கழகம், தஞ்சாவூர், 1994.
- 8. சுஜாதா, ஹைக்கூ ஒரு அறிமுகம், பாரதி பதிப்பகம், 108 உஸ்மான் சாலை, தி. நகர், சென்னை, 1991.
- 9. மேஜர்கதிர் மகாதேவன், ஐக்கூ நூறு, ஒப்பிலக்கியத்துறை, மதுரை காமராசர் பல்கலைக்கழகம், மதுரை, 1994.
- 10. நெல்லைசு. முத்து, தமிழில் ஹைக்கூ, அன்னம் வெளியீடு, சிவன்கோயில் தெரு, சிவகங்கை, 1994. திரு.பட்டாபிசீத்தாரமான், ஹைக்கூ வடிவக் கவிதைகள், காவ்யா, சென்னை.



## **B.Sc GEOGRAPHY-SECOND YEAR: IV SEMESTER (DISTANCE MODE)**

**COURSE TITLE** : Foundation in English (Writing Skills)

COURSE CODE : BFEG-4

COURSE CREDIT : 3 Credits

#### **COURSE OBJECTIVES**

While studying the Foundation in English (Writing Skills), the student shall be able to:

- Train the learners to write the academic essays
- To make them learn different steps of writing
- To develop the learners' creativity
- To distinguish between fact and opinion, cause and effect, problem and solution, similarities and differences, general and specific ideas, and relevant and irrelevant information.
- To convey information through written language
- To involve in note- taking, gathering information, drafting, free-writing, revising, proofreading, and editing when engaged in writing.

### **COURSE OUTCOMES**

After completion of the Foundation in English (Writing Skills), the student will be able to:

- write without mistakes
- draft formal and informal letters
- take notes for writing purpose
- explain the tables/ pictures in words
- edit the written matters

#### **Block: 01 Basic Writing Skills**

Learn the basic paragraph structure: main idea, supporting sentences, use of examples, conclusion-Use basic sentence structures to write a paragraph; use cohesive devices to connect sentences in a paragraph; use transitional devices for cohesion and for contrast paragraph internally and between paragraphs (The above structures and devices to be consciously used in all writing tasks)-Understand and use text structures in paragraphs: sequencing, comparing and contrasting, relating cause and effect, problems and problem solving

#### Block: 02 Informal and Formal Communication

Write informal letters, applications, and official letters of request and denial- Write official e-mails, memos and notices

## **Block: 03 Note-Making and Summarising**

Prepare notes from reading texts- Take notes from spoken texts-Summarize key ideas and information in organized points developed from the notes prepared

## **Block: 04 Study Skills (Information Transfer, Reference Skills)**

Use charts, tables, other graphics and multimedia, as appropriate for the written texts; present summary to a group

## **Block: 05 Technical Editing**

Technical Editing – The Big Picture- Working Collaboratively- Organization: The Architecture of Information- Visual Design and Font Selection- Editing Methods – Then and Now- The Power of Grammar, Punctuation and Spelling- Basic Copyediting- proofreading -Ethical and Legal Issues

### **References:**

- 1. Graham King. Collins Improve your writing skills
- 2. Norman Coe and Robin Rycroft. Writing Skills, A Problem-Solving Approach. CUP.
- 3. Robyn Najar and Lesley Riley. *Developing Academic Writing Skills*. Macmillan Publications.
- 4. Scheraga, Mona. Practical English Writing Skills: A Complete Guide to Writing in English

## Web Resources:

- 1. <a href="https://nptel.ac.in/courses/109/107/109107172/">https://nptel.ac.in/courses/109/107/109107172/</a>
- 2. https://nptel.ac.in/courses/109/104/109104031/
- 3. https://onlinecourses.swayam2.ac.in/cec20 ma04/preview



## **B.Sc GEOGRAPHY-SECOND YEAR: IV SEMESTER (DISTANCE MODE)**

COURSE TITLE : World Regional Geography

COURSE CODE : BGEOS\_41

COURSE CREDIT : 4 Credits

#### **COURSE OBJECTIVES**

While studying the World Regional Geography, the student shall be able to:

- CO1 Observation on definition, physical elements, and space relationships of region
- CO2 Finding location and their characteristics of World climatic regions
- CO3 Evaluate the resource endowment and its spatial distribution and utilization for sustainable development
- CO4 Synthesize and develop the idea of regional dimensions.
- CO5 Outcome the regional disparity based on the geographical factors and human adaptation.

### **COURSE OUTCOMES**

After completion of the World Regional Geography, the student will be able to:

- CLO1 Describing the definition, physical elements, and space relationships of region
- CLO2 Analysing the location and their characteristics of World climatic regions
- CLO3 Appraising the resource endowment and its spatial distribution and utilization for sustainable development
- CLO4 Inculcating the idea of regional dimensions.
- CLO5 Outcome the regional disparity based on the geographical factors and human adaptation.

#### **Syllabus Details**

## **Block 1: Major Climatic Regions of the World**

- 1. Definition of Region Physical Elements Space relationships.
- 2. Major Climatic Regions of the World: Location and Characteristics.
- 3. Equatorial Regions
- 4. Highland and lowland Regions

### **Block 2: Tropical Regions**

- 5. Tropical Monsoon
- 6. Tropical Grassland
- 7. Tropical Deserts

## **Block 3: Warm Temperate Regions:**

- 8. Mediterranean
- 9. Temperate Grasslands
- 10. China Type

## **Block 4: Cool temperate Regions:**

- 11. British type or Marine West Coasts
- 12. Siberian type
- 13. Laurentian type

## **Block 5: Polar Regions:**

- 14. High land or ice cap type
- 15. Lowland or Tundra type

#### References

- 1. Hussain M. (2015) World Geography, 5th Edition, Rawat publications, Jaipur.
- 2. Douglas.L.J., (2009) World Regional Geography, 10th Edition, PearsonEducation, Inc., New Jersey.
- 3. Oliver H. Heintzelman, Richard M. Highsmity J.R. (1965) World Regional Geography Printice Hall of India (P) Ltd., New Delhi.
- 4. Roger Minshull (1967) Regional Geography: Theory and Practice, Hutchinson University Library, London.
- 5. Cole, J. (1996), A Geography of the World's Major Regions, Routledge, London,
- 6. Deblij, H.J. (1994) Geography: Regions and Concepts, John Wiley, New York,
- 7. Darshan singhmanku (1998), A Regional Geography of the world, kalyani publishers, New Delhi.

#### Web Sources

- 1. <a href="https://www.jagranjosh.com/general-knowledge/major-climatic-regions-of-the-world-1291981305-1">https://www.jagranjosh.com/general-knowledge/major-climatic-regions-of-the-world-1291981305-1</a>
- 2. <a href="http://thebritishgeographer.weebly.com/the-climate-of-tropical-regions.html">http://thebritishgeographer.weebly.com/the-climate-of-tropical-regions.html</a>
- 3. <a href="https://www.insightsonindia.com/world-geography/physical-geography-of-the-world/climatology/world-climatic-regions/koeppens-classification/warm-temperate-climates">https://www.insightsonindia.com/world-geography/physical-geography-of-the-world/climatology/world-climatic-regions/koeppens-classification/warm-temperate-climates</a>
- 4. https://gacbe.ac.in/pdf/ematerial/18BGE63C-U4.pdf
- 5. <a href="https://letstalkscience.ca/educational-resources/backgrounders/climate-polar-regions#">https://letstalkscience.ca/educational-resources/backgrounders/climate-polar-regions#</a>

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## **B.Sc GEOGRAPHY-SECOND YEAR: IV SEMESTER (DISTANCE MODE)**

COURSE TITLE : Practical: Mapping Techniques II

COURSE CODE : BGEOS P2

COURSE CREDIT : 2 Credits

#### **COURSE OBJECTIVES**

While studying the Mapping Techniques II, the student shall be able to:

CO1 Demonstrating the calculation of Measure of Central Tendency

CO2 Demonstrating the calculation Frequency Distribution

CO3 Demonstrating the Map Reading

CO4 Demonstrating the calculation Aerial Photo Interpretation

CO5 Demonstrating the calculation Satellite Imagery Interpretation

### **COURSE OUTCOMES**

After completion of the Mapping Techniques II, the student will be able to:

CLO1 Proving the calculation of Measure of Central Tendency

CLO2 Proving the calculation Frequency Distribution

CLO3 Interpreting the sign and symbols of Topographical Sheets

CLO4 Interpreting Aerial Photo and calculating the scale, distance, Hight of the flight and the area covered.

CLO5 Interpreting the Satellite Imagery based on the elements.

### **Syllabus Details**

#### **Block 1: Measure of Central Tendency**

- 1. Mean
- 2. Median
- 3. Mode
- 4. Standard Deviation.

### **Block 2: Frequency Distribution:**

- 5. Histogram frequency Curve
- 6. Ogive Curve.
- 7. Scatter Diagram

8. Simple Correlation Rank correlation.

### **Block 3: Map Reading**

- 9. Conventional signs and Symbols:
- 10. Types and numbering of Indian Topographical sheets
- 11. Interpretation of Indian Topographical Maps.
- 12. Correlation between Physical features and settlements.

## **Block 4: Aerial Photo Interpretation**

- 13. Marginal information of aerial photographs
- 14. Elements of aerial photographs
- 15. Determination of scale, distance, height and area.

# **Block 5: Satellite Imagery Interpretation**

- 16. Marginal information of satellite images
- 17. Elements of image interpretation
- 18. Interpretation of Satellite Imageries.

#### Class Record:

Each student will submit a record containing 10 exercises minimum of two from each block.

#### **References:**

- 1. Ajai, S. G. and Sanjaya, S.G. (2009) Statistical Methods for Practice and Research, Sage Publications, New Delhi.
- 2. Berry, B. J. L. and Marble, D. F. (eds.): Spatial Analysis—A Reader in Geography.
- 3. Sharma, J. P., (2010) PrayogicBhugol, Rastogi Publishers, Meerut.
- 4. Singh, R. L. and Singh, R. P. B., (1999): Elements of Practical Geography, Kalyani Publishers, New Delhi.
- 5. Misra, R.P., (2014): Fundamentals of Cartography (Second Revised and Enlarged Edition), Concept Publishing, New Delhi.
- 6. Robinson, A. H., (2009): Elements of Cartography (6th Edition), John Wiley and Sons, New York.
- 7. Sarkar, A., (2015): Practical geography: A systematic approach, Orient Black Swan Private Ltd., New Delhi.

#### **Web Sources**

- 1. <a href="https://statistics.laerd.com/statistical-guides/measures-central-tendency-mean-mode-median.php">https://statistics.laerd.com/statistical-guides/measures-central-tendency-mean-mode-median.php</a>
- 2. https://www150.statcan.gc.ca/n1/edu/power-pouvoir/ch8/5214814-eng.htm
- 3. <a href="https://gistbok.ucgis.org/bok-topics/map-reading">https://gistbok.ucgis.org/bok-topics/map-reading</a>
- 4. https://ncert.nic.in/textbook/pdf/kegy306.pdf
- 5. https://openjicareport.jica.go.jp/pdf/11709581.pdf
- 6. <a href="https://www.nateko.lu.se/sites/nateko.lu.se/files/um-flygbilderintro2image\_interpretation\_2016\_english\_v3.pdf">https://www.nateko.lu.se/sites/nateko.lu.se/files/um-flygbilderintro2image\_interpretation\_2016\_english\_v3.pdf</a>

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#### **B.Sc GEOGRAPHY-SECOND YEAR: IV SEMESTER (DISTANCE MODE)**

COURSE TITLE : Information Technology

COURSE CODE : BGEOSA 41

COURSE CREDIT : 3 Credits

#### **COURSE OBJECTIVES**

While studying the **Information Technology**, the student shall be able to:

- CO1 Recognize of basics of Computer like generation, classification input and output devices.
- CO2 Recognize of Memory Units of computer hardware
- CO3 Analyse the Internet and Networking
- CO4 Aware of basic software in the computer
- CO5 Apply of web and mobile mapping

#### **COURSE OUTCOMES**

After completion of the **Information Technology**, the student will be able to:

- CLO1 Insiting the basics of Computer like generation, classification input and output devices.
- CLO2 Distinguishing of memory units and programming language of computer hardware
- CLO3 Analysing the Internet and Networking
- CLO4 Demonstrating the basic software and its usage in the computer
- CLO5 Applying of web mapping and mobile mapping

### **Syllabus Details**

### **Block 1: Introduction to Computers**

- 1. Introduction to Computers
- 2. Generation of Modern Computers
- 3. Classification of Digital Computer Systems
- 4. Anatomy of a Digital Computer Input and output Devices

### **Block 2: Memory Units:**

- 5. RAM, ROM, PROM, EPROM, and EEPROM Auxiliary Storage Devices
- 6. Programming Languages: Machine Language, Assembly Language,
- 7. High Level Language, Types of High-Level Language,
- 8. Compiler and Interpreter.

### **Block 3: Internet and Networking**

- 9. Number Systems
- 10. Networking
- 11. Communication Media,
- 12. Internet and Intranet, email
- 13. Cloud computing

#### **Block 4: Basic Software**

- 14. Introduction to Software,
- 15. MS-Word,
- 16. MS-Excel and MS Access
- 17. Power Point and

## **Block 5: Applications**

- 18. Web mapping applications
- 19. Mobile applications

#### References

- 1. Rajaraman, v., 2018. Introduction to Information technology Publisher phi learning pvt. Ltd publication, ISBN: 9387472302, 9789387472303
- 2. Alexis Leon and Mathews Leon., 1999. Fundamentals of Information Technology", Leon TECH World.
- 3. Pelin Aksoy, Laura DeNardis., 2007. Information Technology in Theory Cengage Learning publishing, ISBN: 1423901401, 9781423901402
- 4. Peter Norton., 1998. Introduction to Computers, TMH 6th Edition (for Units IV, V Chapters 13,14)
- 5. Stephen Doyle., 2000. Understanding Information Technology Nelson Thornes publication, ISBN: 0748736093, 9780748736096

#### Web Sources

- 1. https://www.sciencedirect.com/topics/computer-science/supercomputer
- 2. https://psu.pb.unizin.org/ist110/chapter/5-2-human-computer-interaction/
- 3. https://tutorialsjoint.com/anatomy-of-digital-computer/
- 4. https://benchpartner.com/anatomy-of-a-digital-computer
- 5. http://www.igntu.ac.in/eContent/IGNTU-eContent-799042056712-MA-Linguistics-4-HarjitSingh-ComputationalLinguistics-1.pdf

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**B.Sc GEOGRAPHY-SECOND YEAR: IV SEMESTER (DISTANCE MODE)** 

COURSE TITLE : ENVIRONMENTAL STUDIES

COURSE CODE : CCE

COURSE CREDIT : 2 Credits

#### **COURSE OBJECTIVES**

While studying the **Environmental Studies**, the student shall be able to:

- To help students to gain the fundamental knowledge of the environment
- To create in students an awareness of current environmental issues
- To inculcate in students an eco-sensitive, eco-conscious and eco-friendly attitude.

#### **COURSE OUTCOMES**

After completion of the **Environmental Studies**, the student will be able to:

- Articulate the interdisciplinary context of environmental issues
- Adopt sustainable alternatives that integrate science, humanities and social perspectives
- Appreciate the importance of biodiversity and a balanced ecosystem

#### Block: 1

The Multi-disciplinary nature of environmental studies - Definition, scope and importance - Need for public awareness.

#### Block:2

Natural Resources - Renewable and non- renewable resources - Natural resources and associated problems.

- Forest resources: Use and over-exploitation, deforestation, case studies. Timber extraction, mining, dams and their effects on forests and tribal people.
- Water resources: Use and over utilization of surface and ground water, floods, drought, conflicts over water, dams benefits and problems.
- Mineral resources: Use and exploitation, environmental effects of extracting and using mineral resources, case studies.
- Food resources: World food problems, changes caused by agriculture and overgrazing, effects of modern agriculture, fertilizer-pesticide problems, water logging, salinity case studies.
- Energy resources: Growing energy needs, renewable and non-renewable energy sources, use of alternate energy sources. Case studies.

• Land resources: Land as a resource, land degradation, man induced landslides, soil erosion and desertification.

Role of an individual in conservation of natural resources - Equitable use of resources for sustainable lifestyles.

#### Block:3

Ecosystems - Concept of an ecosystem - Structure and function of an ecosystem - Producers, consumers and decomposers - Energy flow in the ecosystem - Ecological succession - Food chains, food webs and ecological pyramids - Introduction, types, characteristic features, structure and function of the following ecosystem:-

- a. Forest ecosystem
- b. Grassland ecosystem
- c. Desert ecosystem
- d. Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries)

#### Block:4

Biodiversity and its conservation - Introduction — Definition : genetic, species and ecosystem diversity - Biogeographical classification of India - Value of biodiversity : consumptive use, productive use, social, ethical, aesthetic and option values - Biodiversity at global, National and local levels - India as a mega — diversity nation - Hot-spots of biodiversity - Threats to biodiversity : habitat loss, poaching of wildlife, man wildlife conflicts - Endangered and endemic species of India - Conservation of biodiversity : In-situ and Ex-situ conservation of biodiversity.

#### Block:5

Environmental Pollution - Definition - Causes, effects and control measures of : Air pollution, Water pollution, Soil pollution, Marine pollution, Noise pollution, Thermal pollution, Nuclear hazards - Solid waste Management - Causes, effects and control measures of urban and industrial wastes. - Role of an individual in prevention of pollution - Pollution case studies - Diaster management: floods, earthquake, cyclone and landslides.

## Block :6

Social issues and the Environment - From Unsustainable to Sustainable development - Urban problems related to energy - Water conservation, rainwater harvesting, watershed management - Resettlement and rehabilitation of people; its problems and concerns. Case studies - Environmental ethics: Issues and possible solutions - Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents, and holocaust. Case studies - Wasteland reclamation - Consumerism and waste products - Environment Protection Act - Air (Prevention and Control of Pollution) Act - Water (Prevention and control of Pollution) Act - Wildlife Protection Act - Forest Conservation Act - Issues involved in enforcement of environmental legislation - Public awareness.

#### Block:7

Human Population and the Environment - Population growth, variation among nations - Population

explosion - Family Welfare Programme - Environment and human health - Human Rights - Value Education - HIV / AIDS - Women and Child Welfare - Role of Information Technology in Environment and human health - Case Studies.

#### Reference:

- 1. Carson, R.2002. Slient Spring, Houghton Miffin Harcourt.
- Gadgil, M., &Guha, R. 1993. This Fissured Land: An Ecological History of India, Univ. Of California Press.
- 3. Glesson, B. And Law, N.(eds.)1999, Global Ethics and Environment, London, Routledge.
- 4. Glieck, P.H.1993. Water Crisis, Pacific Institute for Studies in Dev. Environment & Security, Stockholm Env. Institute, Oxford Univ. Press.
- 5. Groom, Martha J., Gary K.Meffe, and Carl Ronald Carroll, Principles of Conservation Biology. Sunderland: Sinauer Associate, 2006.
- 6. Grumbine.R.Edward, and Pandit,M.k.2013.Threats from India's Himalayas dams.Science,.339:36-37
- 7. McCully,P.1996.Rivers no more : the environmental effects of dams(pp.29.64).Zed books.
- 8. McNcill John R.2000.Something New Under the Sun: An Environmental History of the Twentieth Century.
- 9. Odum, E.P..Odum, H.T.& Andrees.J.1971.Fundamenetal of Ecology, Philadelphia Saunders.
- 10. Pepper.J.J...Gerba.C.P. & Brusseau.M.L.2011.Environmental and Pollution Science. Academic Press.
- 11. Rao.M.N.&Datta,A.K 1987.Waste Water Treatment, Oxford and IBH Publishing Co.Pvt.Ltd.
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- 13. Rosencranz., A..Divan,S..& Noble, M.L.2001.Environmental law and policy in India, Tirupathi 1992.
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- Conservation, S.Chand Publishing .New Delhi .
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- 19. Wilson.E.O.2006. The Creation: An appeal to save life on earth.New York: Norton.
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  Oxford University Press.



## **B.Sc GEOGRAPHY-THIRD YEAR: V SEMESTER (DISTANCE MODE)**

COURSE TITLE : Geography of Tamilnadu

COURSE CODE : BGEOS 51

**COURSE CREDIT** : 4 Credits

#### **COURSE OBJECTIVES**

While studying the Geography of Tamilnadu, the student shall be able to:

- CO1 Finding the Location, physical Features, soil, Natural vegetation, and wildlife resources.
- CO2 Appraise the agriculture and irrigation, animal husbandry, fishing, and horticulture of Tamilnadu
- CO3 Appreciate of Population Distribution, Migration and Causes, Scheduled Tribes, and Distribution in Tamilnadu
- CO4 Identify the Mineral, power resources and Industrial distribution of Tamilnadu
- CO5 Examine the Transport and Trade and the natural hazards in Tamilnadu.

#### **COURSE OUTCOMES**

After completion of the **Geography of Tamilnadu**, the student will be able to:

- CLO1 Identifying and appraising the location, physical Features, soil, Natural vegetation, and wildlife resources.
- CLO2 Analysing the agriculture and irrigation, animal husbandry, fishing, and horticulture resources of Tamilnadu
- CLO3 Appreciating of Population Distribution, Migration and Causes, Scheduled Tribes, and Distribution in Tamilnadu
- CLO4 Estimating the Mineral, power resources and Industrial distribution of Tamilnadu
- CLO5 Examining the Transport and Trade and the natural hazards in Tamilnadu.

#### **Syllabus Details**

## **Block 1: Location and Physical Features**

- 1. Geographical location, Physical features and Drainage
- 2. Climate
- 3. Soil
- 4. Vegetations and Wildlife

### **Block 2: Agriculture**

- 5. Agriculture and Irrigation
- 6. Animal Husbandry
- 7. Fishing

8. Horticulture

#### **Block 3: Population**

- 8. Population Distribution
- 9. Migration and Causes
- 10. Scheduled Tribes and Distribution in Tamilnadu

## **Block 4: Mineral resources and Industry**

- 11. Minerals Distribution
- 12. Power resources Distribution
- 13. Industry: Automobile, Electrical and Electronics, Software and Textile Industries.

# **Block 5: Transport and Trade**

- 14. Transport network: Surface, Water and Air
- 15. Trade: Major Exports and Imports.
- 16. Natural Hazards in Tamilnadu

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- 2. SHBoTN (2004). Statistical Handbook of Tamil Nadu. Department of Economics and Statistics, Government of Tamil Nadu, Chennai.
- 3. TNEA (2014). Tamil Nadu An Economic Appraisal 2011-12 to 2013-14. Department of Evaluation and Applied Research, Chennai.
- 4. SCRoTN (2004). Season and Crop Report of Tamil Nadu for the Agricultural Year 2003-2004. Department of Economics and Statistics, Chennai.
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- 3. https://www.environment.tn.gov.in/climate-change-cell
- 4. <a href="http://www.tnenvis.nic.in/Database/Climate">http://www.tnenvis.nic.in/Database/Climate</a> 1209.aspx
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## **B.Sc GEOGRAPHY-THIRD YEAR: V SEMESTER (DISTANCE MODE)**

**COURSE TITLE** : Fundamentals of Remote Sensing

COURSE CODE : BGEOS\_52

COURSE CREDIT : 4 Credits

#### **COURSE OBJECTIVES**

While studying the Fundamentals of Remote Sensing, the student shall be able to:

- CO1 Define the Aerial, Satellite and Radar Remote Sensing.
- CO2 Processes of Remote Sensing.
- CO3 Differentiate the various types of Remote Sensing
- CO4 Reading the aerial Photograph
- CO5 Reading the satellite imagery

#### **COURSE OUTCOMES**

After completion of the Fundamentals of Remote Sensing, the student will be able to:

- CLO1 Defining the Aerial, Satellite and Radar Remote Sensing.
- CLO2 Processes of Remote Sensing with electromagnetic radiation and atmosphere.
- CLO3 Differentiating the Active and Passive, Optical-mechanical scanners and Push-broom scanners and Thermal remote sensing and Ideal Remote Sensing Systems
- CLO4 Reading of aerial Photograph
- CLO5 Reading of satellite imagery

### **Syllabus Details**

# **Block 1: Remote Sensing**

- 1. Definition and Types: Aerial, Satellite and Radar
- 2. History, Organization and Development of Space Programmes

### **Block 2: Remote Sensing Processes**

- 3. Introduction to Remote Sensing
- 4. Sources of Energy and Electromagnetic Radiations (EMR)
- 5. Electromagnetic Spectrum, Atmospheric Windows
- 6. Energy Interaction with Atmosphere and Earth

### **Block 3: Types of Remote Sensing and Scanners**

- 7. Platforms, Types of Platforms and its Characteristics
- 8. Active and Passive, Optical-mechanical scanners and Push-broom scanners

9. Thermal remote sensing and Ideal Remote Sensing Systems

# **Block 4: Fundamentals of Aerial Remote Sensing:**

- 10. Aerial Photo imaging system and types of Aerial Photographs
- 11. Marginal Information of Aerial Photographs
- 12. Elements of Photo Interpretation

### **Block 5: Fundamentals of Satellite Remote Sensing:**

- 13. Types of Satellites: Geostationary and Sun-synchronous Satellites
- 14. Resolution: Spatial, Spectral, Radiometric and Temporal
- 15. Visual Image interpretation
- 16. Digital Image classification

#### **References:**

- 1. Sarkar, A. (2015): Practical geography: A systematic approach. Orient Black Swan Private Ltd., New Delhi
- 2. Anji Reddy, M. (2008): Textbook of Remote Sensing and Geographic Information System, B.S. Publication, Hyderabad
- 3. Campbell, J. B., (2007): Introduction to Remote Sensing, Guildford Press.
- 4. Chauniyal, D.D., (2010): Sudur Samv edanevam Bhogolik Suchana Pranali (Hindi), Sharda Pustak Bhawan, Allahabad. 34
- 5. Jensen, J.R. (2007): Remote Sensing of the Environment: An Earth Resource Perspective, Prentice-Hall Inc., New Jersey.
- 6. Joseph, G. (2005): Fundamentals of Remote Sensing, United Press India.
- 7. Kumar, Dilip, Singh, R.B. and Kaur, Ranjeet (2019): Spatial Information Technology for Sustainable Development Goals, Springer.
- 8. Lillisand, T.M., and Kiefer, P.W., (2007): Remote Sensing and Image Interpretation,6th Edition, John Wiley & Sons, New York.

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- 2. https://gisgeography.com/remote-sensing-earth-observation-guide/
- 3. https://www.iirs.gov.in/
- 4. https://www.heavy.ai/technical-glossary/remote-sensing

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### **B.Sc GEOGRAPHY - THIRD YEAR: V SEMESTER (DISTANCE MODE)**

COURSE TITLE : Geography of Settlement

COURSE CODE : BGEOS 53

**COURSE CREDIT** : 4 Credits

#### **COURSE OBJECTIVES**

While studying the Geography of Settlement, the student shall be able to:

- CO1 Expertise the Meaning, nature, scope, and basic concepts of settlement geography
- CO2 Knowledge of the Concept, Characteristics, factors and problems of Rural settlement.
- CO3 Knowledge of the Concept, Characteristics, Urbanization and Functional Classification of urban centers.
- CO4 Examine the functions and characteristics of Central Business District
- CO5 Appreciate the hierarchy of urban centres.

### **COURSE OUTCOMES**

After completion of the **Geography of Settlement**, the student will be able to:

- CLO1 Elucidating the Meaning, nature, scope, and basic concepts of settlement geography
- CLO2 Explaining the Concept, Characteristics, factors, and problems of Rural settlement.
- CLO3 Explaining the Concept, Characteristics, Urbanization and Functional Classification of urban centers.
- CLO4 Enumerating the functions and characteristics of Central Business District
- CLO5 Appreciating the hierarchy of urban centres.

#### **Syllabus Details**

#### **Block 1: Geography of Settlements**

- 1. Meaning, nature and scope and Settlement types.
- 2. Fundamental concepts in Settlement Geography.

#### **Block 2: Rural Settlements**

- 3. Concept, Characteristics and Factors
- 4. Types and Patterns.
- 5. Regional characteristics and Morphology
- 6. Rural problem and planning.

#### **Block 3: Urban Settlements**

- 7. Concept, Characteristics, Urbanization and influencing factors
- 8. Urbanization in India and World
- 9. Functional Classification of urban centers.

#### **Block 4: Central Business District**

- 10. Functions and characteristics of CBD
- 11. Urban Morphology: Classical models Burgess, Homer and Hoyt,
- 12. Classical models: Harris and Ullman
- 13. Rural-Urban Fringe.

# Block 5: Hierarchy of urban centers

- 14. Rank-Size rule
- 15. Central place theory
- 16. Urban Problems: Slums
- 17. Urban Planning.

#### References

- 1. Siddhartha K, (2013), Cities, Urbanisation and Urban Systems, kisalaya publication Pvt. Ltd New Delhi.
- 2. Majid Hussain (1999), Human Geography, Rawat Publications, Jaipur.
- 3. Nath V. (2007), Urbanisation, Urban Development and Metropolitan Cities in India, Concept Publishing Co. New Delhi.
- 4. Pacione, Michael (2001), Urban Geography A Global Perspective, Routedge, London.
- 5. R.B. Mandal (2009), Urban Geography: A Textbook; Concept Publishing Co., New Delhi.
- 6. Singh, R. L., (1994). Geography of Settlements, Rawat Publications, New Delhi.
- 7. Bala, Raj (1986), Urbanisation in India, Rawat Publishers, Jaipur.

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**B.Sc GEOGRAPHY-THIRD YEAR: V SEMESTER (DISTANCE MODE)** 

**COURSE TITLE** : Disaster Studies

COURSE CODE : BGEOS 54

COURSE CREDIT : 3 Credits

#### **COURSE OBJECTIVES**

While studying the **Disaster Studies**, the student shall be able to:

CO1 Define and differentiate the disasters.

CO2 Analyse Causes and consequences of Natural Disasters occurred in India.

CO3 Analyse Causes and consequences of Manmade Disasters occurred in India

CO4 Demonstrate the Response and Mitigation to Disasters

CO5 Provide the role of geography in Disaster management

## **COURSE OUTCOMES**

After completion of the **Disaster Studies**, the student will be able to:

CLO1 Concerned the meaning and Classification of Disasters

CLO2 Examining the causes and consequences of Natural Disasters occurred in India.

CLO3 Examining the causes and consequences of Manmade Disasters occurred in India

CLO4 Demonstrating the Response and Mitigation to Disasters management

CLO5 Acquired the knowledge about the role of geography in Disaster management

### **Syllabus Details**

#### **Block 1: Disasters**

- 1. Definition and Concepts
- 2. Risk and Vulnerability
- 3. Classification of Disasters

## **Block 2: Natural Disasters in India (1)**

4. Flood: Causes, Impact

5. Landslide: Causes, Impact

6. Drought: Causes, Impact

## **Block 3: Natural Disasters in India (2)**

7. Earthquake: Causes, Impact8. Volcanoes: Causes, Impact

- 9. Tsunami: Causes, Impact
- 10. Cyclone: Causes, Impact

#### **Block 4: Manmade disasters**

- 11. Atmospheric Disasters
- 12. Chemical / Industrial Disasters
- 13. Biological Disasters

## **Block 5: Response and Mitigation to Disasters**

- 14. Mitigation and Preparedness
- 15. NDMA, TNSDMA, NIDM and UNDM
- 16. Indigenous Knowledge and Community-Based Disaster Management
- 17. Role of geography in Disaster management.

#### References

- 1. Kapur, A., 2010. Vulnerable India: A Geographical Study of Disasters, Sage Publication, New Delhi.Suggested References
- 2. Savindra S. and Jeetendra S. (2013) Disaster Management, Pravalika Publications, Allahabad.
- 3. Govt. of India (2008) Vulnerability Atlas of India. BMTPC, New Delhi.
- 4. Govt. of India (2011) Disaster Management in India. Ministry of Home Affairs, New Delhi.
- 5. Modh, S. (2010) Managing Natural Disaster: Hydrological, Marine and Geological Disasters, Macmillan, Delhi.
- 6. Kapur, A. (2010) Vulnerable India: A Geographical Study of Disasters, Sage Publication, New Delhi.
- 7. Government of India, 1997. Vulnerability Atlas of India. New Delhi, Building Materials & Technology Promotion Council, Ministry of Urban Development, Government of India.
- 8. Carter, N. (1991) Disaster Management: A Disaster Manager's Handbook. Asian Development Bank, Manila.

#### **Web Sources**

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- 2. https://nidm.gov.in/
- 3. https://ndmindia.mha.gov.in/organization
- 4. https://www.mha.gov.in/division of mha/disaster-management-division

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# **B.Sc GEOGRAPHY -THIRD YEAR: V SEMESTER (DISTANCE MODE)**

COURSE TITLE : Biogeography

COURSE CODE : BGEOS 55

COURSE CREDIT : 3 Credits

#### **COURSE OBJECTIVES**

While studying the **Biogeography**, the student shall be able to:

- CO1 Elucidate the meaning, nature scope and components of biogeography
- CO2 Elaborate the basic Ecological Principles.
- CO3 Assess the Bio- Diversity
- CO4 Distinguish the various World Biomes
- CO5 Identify the Ecological and Environmental Managements and conservation

## **COURSE OUTCOMES**

After completion of the **Biogeography**, the student will be able to:

- CLO1 Illuminating the meaning, nature scope and components of biogeography
- CLO2 Elaborate the basic Ecological Principles like Bio-energy cycle, Tropical level and food chain and Concepts of Biome, Eco-tone and community
- CLO3 Assessing the Problems of Extinction of plant and animal life and Process of Desertification and its Consequences
- CLO4 Distinguish the various World Biomes: Forest, grass, and desert.
- CLO5 Exercising the Ecological and Environmental Managements and conservation

## **Syllabus Details**

#### **Block 1: Introduction to Biogeography:**

- 1. Nature, scope, and components
- 2. Origin of Fauna and Flora
- 3. Plants and Animal evolution throughout the geological times
- 4. Distribution of plant life on the earth

# **Block 2: Basic Ecological Principles**

- 5. Bio-energy cycle in the Terrestrials Ecosystem
- 6. Tropical level and food chain.
- 7. Concepts of Biome, Eco-tone and community

## **Block 3: Biodiversity:**

8. Problems of Extinction of plant and animal life

- 9. Process of Desertification and its Consequences
- 10. Industrial Effluents and their effects on freshwater Biology

#### **Block 4: World Biomes:**

- 11. Tropical forest
- 12. Tropical Grasslands
- 13. Temperate Grassland
- 14. Tropical Deserts.

## **Block 5: Ecological and Environmental Managements:**

- 15. Study of Ecological regions of Himalayas and the Western Ghats
- 16. Conservation and Management

#### References

- 1. Sivaperuman, Chandrakasan et al., (2018): Biodiversity and Climate Change Adaptation in Tropical Islands, Academic Press, London Haden-
- 2. Guest, S., Wright, J. K. and Teclaff, E. M. (1956): World Geography of Forest Resources, New York: Ronald Press Co.
- 3. Hoyt, J.B. (1992): Man, and the Earth, Prentice Hall, U.S.A.
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- 5. Lal, D. S. 2003. Climatology, Allahabad: Sharda Pustak Bhawan.
- 6. Mal, Suraj., and Singh, R.B. (Eds.) (2009): Biogeography and Biodiversity, Rawat Publication, Jaipur
- 7. Mountain and Tree cover in Mountain Regions Report 2002, UNEP-WCMC.
- 8. Parmesan, C., Yohe, G. (2003): A globally coherent fingerprint of climate change impacts across natural systems. Nature, 421 (6918), 37–42

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- 2. https://biologydictionary.net/biogeography/
- 3. https://study.com/academy/lesson/biogeography-definitions-examples.html
- 4. <a href="https://flexbooks.ck12.org/cbook/ck-12-biology-flexbook-2.0/section/5.17/primary/lesson/biogeography-bio/">https://flexbooks.ck12.org/cbook/ck-12-biology-flexbook-2.0/section/5.17/primary/lesson/biogeography-bio/</a>
- 5. https://biomed.brown.edu/Courses/BIO48/29.Biogeography.HTML

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## **B.Sc GEOGRAPHY-THIRD YEAR: VI SEMESTER (DISTANCE MODE)**

COURSE TITLE : Geography of India

COURSE CODE : BGEOS 61

**COURSE CREDIT** : 4 Credits

#### **COURSE OBJECTIVES**

While studying the Geography of India, the student shall be able to:

CO1 Realize the various types of Physical features found in India

CO2 Explore the various pattern, types, and crops of agriculture in India

CO3 Appreciate the natural resources availability in India

CO4 Examine the geographical distribution industry related to available natural resources.

CO5 Analyse the Population resources, transport, and trade.

# **COURSE OUTCOMES**

After completion of the Geography of India, the student will be able to:

- CLO1 Realizing the various types of Physical features, drainage, climate, vegetation found in India
- CLO2 Explore the various pattern of agriculture, different types of types of crops, regional disparity, and problems of agriculture in India
- CLO3 Appreciating availability of minerals, power resources, multipurpose project in India
- CLO4 Examine the geographical distribution industry and production and industrial regions.
- CLO5 Analysing the Population resources, transport, and trade development.

#### **Syllabus Details**

#### **Block 1: Physical Setting**

- 1. Location and Physical Divisions
- 2. Drainage
- 3. Climate and Indian Monsoon
- 4. Soil and Natural Vegetation.

## **Block 2: Agriculture:**

- 5. Agriculture and Irrigation types
- 6. Major crops: Rice, Wheat, Sugarcane, Cotton, Groundnut

- 7. Plantation Crops: Tea and Coffee
- 8. Agricultural Regions and Green revolution
- 9. Problems of Indian Agriculture.

#### **Block 3: Recourses:**

- 10. Minerals: Iron, Copper, Mica, Manganese, Bauxite, and Atomic minerals
- 11. Power Resources: Coal, Petroleum, Natural gas, Hydro Power
- 12. Multipurpose river projects and Atomic power stations
- 13. Need for non-conventional energy sources.

#### **Block 4: Industries:**

- 14. Distribution and production of major industries: Cotton and textiles, Iron and Steel, Sugar, Cement, Chemical and Automobile
- 15. Major industrial regions.

# **Block 5: Population, Transport and Trade:**

- 16. Population: Growth, density, distribution and problems.
- 17. Transport: Land, water and air Foreign trade of India.

#### References

- 1. Dave, Bharati, (2018): Mapping the Quality of Living Spaces in India, Indian Research Academy, New Delhi.
- 2. Hussain, M., (1992): Geography of India, Tata McGraw Hill Education, New York.
- 3. Mamoria, C. B., (1980): Economic and Commercial Geography of India, Shiva Lal Agarwala.
- 4. Miller, F. P., Vandome, A. F. and McBrewster, J., (2009): Geography of India: IndoGangetic Plain, Thar Desert, Major Rivers of India, Climate of India, Geology of India, Alphascript Publishing, New Delhi.
- 5. Pichamuthu, C. S., (1967): Physical Geography of India, National Book Trust, Delhi.
- 6. Rana, Teibir Singh, (2015) Diversity of India, R.K. Books, New Delhi. 113
- 7. Sharma, T. C. and Coutinho O., (1997): Economic and Commercial Geography of India, Vikas Publishing, New Delhi.
- 8. Spate, O. H. K. and Learmonth, A. T. A., (1967): India and Pakistan: A General and Regional Geography, Methuen, London.

## **Web Sources**

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- 2. <a href="https://www.cs.mcgill.ca/~rwest/wikispeedia/wpcd/wp/g/Geography">https://www.cs.mcgill.ca/~rwest/wikispeedia/wpcd/wp/g/Geography</a> of India.htm
- 3. <a href="https://www.clearias.com/geography/">https://www.clearias.com/geography/</a>
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## **B.Sc GEOGRAPHY-THIRD YEAR: VI SEMESTER (DISTANCE MODE)**

COURSE TITLE : Fundamentals of Geographical Information System and

GNSS

COURSE CODE : BGEOS 62

COURSE CREDIT : 4 Credits

#### **COURSE OBJECTIVES**

While studying the Fundamentals of Geographical Information System and GNSS, the student shall be able to:

- Realizethe various components and principles of GIS
- Demonstrate the geospatial data management system
- Analyse the Geospatial Data
- Insite the Cartographic Principles and Project Management
- Validate the Global Navigation Satellite (GNSS)

#### **COURSE OUTCOMES**

After completion of the Fundamentals of Geographical Information System and GNSS, the student will be able to:

- Realizing the basic components and Data structure of GIS
- Appreciating the geospatial data acquisition, file format, Data structure and type of data.
- Analysing the various types of Geospatial Data
- Implanting the Cartographic principles, design and Project Management
- Validating segments, functioning, trend and applications of Global Navigation Satellite (GNSS)

#### **Syllabus Details**

## **Block 1: Introduction to GIS and Data structure**

- 1. Definition and History of GIS Component of GIS
- 2. Data structure and formats
- 3. Spatial and non-spatial Data,
- 4. Raster and Vector Data Structure.

## **Block 2: Geospatial Data Management**

- 5. Geographic Data Acquisition
- 6. Geospatial Database Management
- 7. File Format

8. Data quality

## **Block 3: Spatial Data Analysis**

- 9. Vector Operations: Buffering, Overlay Operation and Spatial Join
- 10. Raster Analysis: Scale of Analysis, Zonal Operation
- 11. Network Analysis and DEM

## **Block 4: Cartographic Principles and Project Management**

- 12. Cartographic Principles
- 13. Cartographic Design
- 14. GIS Project Management.

# **Block 5: Global Navigation Satellite System (GNSS)**

- 15. Introduction to GNSS
- 16. Space Segment, Control Segment and User segment
- 17. Recent trends and Applications

#### References

- 1. Kumar, Dilip, Singh, R.B. and Kaur, Ranjeet (2019): Spatial Information Technology for Sustainable Development Goals, Springer.
- 2. Bhatta, B., (2010): Analysis of Urban Growth and Sprawl from Remote Sensing, Springer, Berlin Heidelberg.41
- 3. Chauniyal, D.D. (2010): SudurSamvedanevamBhogolikSuchanaPranali, Sharda Pustak Bhawan, Allahabad
- 4. Gomarasca, M. A. (2009) Basics of Geomatics, Springer Science, New York
- 5. Heywoods, I., Cornelius, S and Carver, S., (2006): An Introduction to Geographical Information system. Prentice Hall. 52
- 6. Jha, M.M. and Singh, R.B., (2008) Land Use: Reflection on Spatial Informatics Agriculture and Development, New Delhi: Concept.
- 7. Sarkar, A. (2015) Practical geography: A systematic approach. Orient Black Swan Private Ltd., New Delhi

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- 2. https://www.giscourse.com/online-resources-for-gis/
- 3. <a href="https://www.esri.com/en-us/esri-press/browse">https://www.esri.com/en-us/esri-press/browse</a>
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- 5. <a href="https://volaya.github.io/gis-book/en/gisbook.pdf">https://volaya.github.io/gis-book/en/gisbook.pdf</a>
- 6. <a href="https://open.umn.edu/opentextbooks/textbooks/67">https://open.umn.edu/opentextbooks/textbooks/67</a>

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# **B.Sc GEOGRAPHY-THIRD YEAR: VI SEMESTER (DISTANCE MODE)**

COURSE TITLE : Practical: Mapping Techniques III

COURSE CODE : BGEOS P3

COURSE CREDIT : 4 Credits

#### **COURSE OBJECTIVES**

While studying the Mapping Techniques III, the student shall be able to:

CO1 Demonstrateto identify choice of Projections and types.

CO2 Demonstrate various types of distribution maps

CO3 Demonstratevarious thematic maps

CO4 Demonstratevarious types of located maps

CO5 Demonstrate cartographic overlay techniques.

#### **COURSE OUTCOMES**

After completion of the Mapping Techniques III, the student will be able to:

- CLO1 Constructing different types of Projections and their choice.
- CLO2 Drawingsingle and multiple dot maps.
- CLO3 Constructing isopleth, choropleth, choroschematic and chorochromatic maps.
- CLO4 Constructing Bar graph, Circle, Sphere and Flow maps
- CLO5 Demonstrating cartographic overlay techniques from point, line and area data.

## **Syllabus Details**

## **Block1: Map Projections**

- 1. Criteria for Choice of Projections.
- 2. Attributes and Properties of: Zenithal Gnomonic Polar Case,
- 3. Cylindrical Equal Area,
- 4. Conical Projection with Two Standard Parallel.

## **Block 2: Distribution Maps**

- 9. Single dot maps
- 10. Multiple dot maps

## **Block 3: Thematic Maps**

- 11. Isopleths
- 12. Choropleth,

- 13. Choro schematic
- 14. chorochromatic

# **Block 4: Located Maps:**

- 15. located diagrams:Bar graph
- 16. located diagrams:Circle
- 17. located diagrams: Sphere
- 18. located diagrams:Flow maps

## **Block 5: Cartographic Overlays**

- 19. Point Data
- 20. Line Data
- 21. Areal Data

#### Class Record:

Each student will submit a record containing 10 exercises minimum of two from each block.

#### References:

- 1. Singh, R. L, and Duttta, P. K., (2012): PrayogatamaBhugol, Central Book Depot, Allahabad
- 2. Cuff, J. D. and Mattson, M. T., (1982): Thematic Maps: Their Design and Production, Methuen Young Books
- 3. Kraak, M.J. and Ormeling, F., (2003): Cartography: Visualization of Geo-Spatial Data, Prentice-Hall.
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## **B.Sc GEOGRAPHY-THIRD YEAR: VI SEMESTER (DISTANCE MODE)**

COURSE TITLE : Economic Geography

COURSE CODE : BGEOS 63

COURSE CREDIT : 3 Credits

#### **COURSE OBJECTIVES**

While studying the **Economic Geography**, the student shall be able to:

- CO1 Appreciate the basic concept of Economic Geography
- CO2 Examine the significance and relevance of theories in relation to the location of different economic activities
- CO3 Appreciate the various types of Primary Activities
- CO4 Appreciate the various types of Secondary Activities
- CO5 Appreciate the various types of Tertiary and Quaternary Activities

#### **COURSE OUTCOMES**

After completion of the **Economic Geography**, the student will be able to:

- CLO1 Appreciating the basic concept, approaches and basic concepts and pattern of Economic Geography
- CLO2 Significance and relevance of theories in relation to the location of different economic activities
- CLO3 Realising the various types of agriculture forming
- CLO4 Valuing the various types of industrial Activities
- CLO5 Appreciating the various types of transport, trade and communication Activities.

## **Syllabus Details**

# **Block 1: Concept of Economic Geography**

- 1. Definition, Approaches and Fundamental Concepts of Economic Geography.
- 2. Patterns of Development.

#### **Block 2: Locational Theories**

- 3. Agriculture (Von Thunen)
- 4. Industrial (Weber).

## **Block 3: Primary Activities**

- 5. Intensive Subsistence Farming
- 6. Commercial Grain Farming and Plantation,
- 7. Commercial Dairy Farming

- 8. Commercial Fishing
- 9. Mining (iron ore, coal and petroleum).

# **Block 4: Secondary Activities**

- 10. Cotton Textile Industry,
- 11. Petro-Chemical Industry,
- 12. Major Manufacturing Regions.

# **Block 5: Tertiary and Quaternary Activities**

- 13. Modes of Transportation
- 14. Patterns of International Trade
- 15. Information and Communication Technology.

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# **B.Sc GEOGRAPHY-THIRD YEAR: VI SEMESTER (DISTANCE MODE)**

**COURSE TITLE** : Population Geography

COURSE CODE : BGEOS\_64

COURSE CREDIT : 3 Credits

#### **COURSE OBJECTIVES**

While studying the **Population Geography**, the student shall be able to:

- CO1 Aware of Nature and Scope of Population Geography
- CO2 Significance and relevance to the theories of Population growth.
- CO3 Demonstrate various types of Measures, Determinants, and Implications of Population Dynamics.
- CO4 Analyse the population Composition and Characteristics
- CO5 Examine population dynamics and characteristic with contemporary issues

## **COURSE OUTCOMES**

After completion of the **Population Geography**, the student will be able to:

- CLO1 Concerned about the nature and scope of Population Geography and its sources of data, distribution, growth, determinants and pattern.
- CLO2 Significance and relevance of theories of Population growth: Malthusian Theory and Demographic Transition Theory.
- CLO3 Demonstrate various types of Measures, Determinants, and Implications of Population Dynamics.
- CLO4 Analysing the population Composition and Characteristics
- CLO5 Examining population dynamics and characteristic with contemporary issues

## **Syllabus Details**

## **Block 1: Defining the Field**

- 1. Nature and Scope of Population Geography
- 2. Sources of Data with special reference to India (Census, Vital Statistics and NHS).
- 3. Population Size, Distribution and Growth
- 4. Determinants and Patterns

## **Block 2: Theories of Population Growth**

- 5. Malthusian Theory
- 6. Demographic Transition Theory.

# Block 3: Population Dynamics: Measures, Determinants and Implications

- 7. Fertility and Mortality
- 8. Migration and Disability

## **Block 4: Population Composition and Characteristics**

- 9. Age-Sex Composition
- 10. Rural and Urban Composition
- 11. Literacy

## **Block 5: Contemporary Issues**

- 12. Ageing of Population
- 13. Social Vulnerability
- 14. Gender equity
- 15. Future Migration
- 16. Environmental sustainability

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