

Geography

Crosscutting issues

Savitribai Phule Pune University, Pune
T.Y.B.A
Gg.: 310 Regional Geography of India (G-3)
June 2015



Objective :-

- To acquaint the students with geography of our Nation.
- To make the student aware of the magnitude of problems and Prospects at National level.
- To help the students to understand the inter relationship between the subject and the society.
- To help the students to understand the recent trends in regional studies.

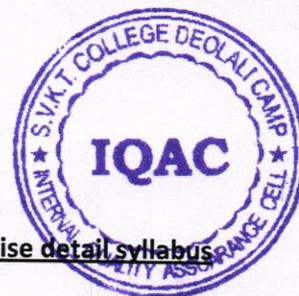
SECTION - I

| Sr. No. | Topic | Sup Topic | Learning Points | Periods |
|---------------------|------------------------------|---|--|---------|
| 1 | Introduction | Location, Extent and Geopolitical Significance | 1. Historical Background 2. Location and Extent 3. Relationship with Neighboring Countries 4. Geopolitical Importance of Indian Ocean. | 10 |
| 2 | Physiography | Major Physiographic Regions and their Importance | 1. The Northern Mountains 2. The North Indian Plains 3. The Peninsular Plateau 4. The Coastal low lands 5. The Islands | 12 |
| 3 | Drainage | Drainage System of India The Himalayan River System The Peninsular River System | 1. The Indus, The Ganga, The Brahmaputra 2. East Flowing Rivers- Mahanadi, Godavari, Krishna, Kaveri. 3. West Flowing Rivers- Narmada, Tapi, Mahi 4. Rivers of the Sahyadri - Amba & Damanganga | 12 |
| 4 | Climate | Characteristics, Origin and Mechanism of Monsoon, Various Seasons | 1. Characteristics of Indian Climate 2. Role of Various Controlling Factors on Climate of India 3. Monsoon: Origin and Mechanism 4. Various Seasons and Weather Associated with them | 11 |
| SECTION - II | | | | |
| 5 | Soils and Natural Vegetation | Types and Distribution | Types of Soils and its Distribution Soil Degradation and Conservation Types of Natural Vegetation and its Distribution | 12 |

| | | | | |
|---|-------------------------------|---|---|----|
| 6 | Minerals and Energy Resources | Mineral Resources Energy Resources | Deforestation and Conservation 1. Mineral Resources & its distribution Iron ore, Manganese, Bauxite, Copper 2. Energy Resources- a) Major Conventional & its Distribution Coal, Mineral Oil, Natural Gas b) Non-conventional - Hydroelectricity, Solar energy, Wind energy, Biogas, Atomic energy | 12 |
| 7 | Agriculture | Significance and Recent Trends in Agriculture | 1. Significance of Agriculture in Indian Economy 2. Green Revolution 3. White Revolution 4. Blue Revolution 5. Livestock Resources, 6. Tissue Culture & Horticulture 7. Poly House and Agriculture | 11 |
| 8 | Planning and Development | Regional Planning and development | 1. Concept, Objectives, Need, Nature of Regional Planning 2. Experience of Regional Planning in India 3. Regional Development of Maharashtra | 10 |

Suggested Readings:

- Aher A.B., Chaudhari A. P & Chaudhuri Archana. Regional Geography of India Prashant Publication Jaigaon 2015
- Deshpande C.D. India-A Regional Interpretation Northern Book Centre, New Delhi 1992.
- Farmer, B.H.: An Introduction to South Asia. Methuen, London, 1983.
- Govt. of India: India - Reference Annual, 2001 Pub. Div, New Delhi, 2001.
- Govt. of India: National Atlas of India, NATMO Publication, Calcutta.
- Govt. of India: The Gazetteer of India, Vol I & II. Publication Division, New Delhi, 1965.
- Learnmonth, A.T.A. et al(ed.): Man and Land of South Asia Concept, New Delhi.
- Mitra, A.: Levels of Regional Development India Census of India, Vol I, Part I-A (i) and (ii) New Delhi, 1967.
- Routray, J.K.: Geography of Regional Disparity Asian Institute of Technology, Bangkok, 1993.
- Shafi, M: Geography of South Asia, McMillan & Co., Calcutta, 2000.
- Singh, R.L.(ed.): India: A Regional Geography, National Geographical Society, India, Varanasi, 1971.
- Spatz, O.H.K. and Learnmonth, A.T.A., India and Pakistan - Land, People and Economy Methuen & Co., London, 1967.
- P. G. Saptarshi, J. C. More, V. R. Ugale & A. H. Musmade: A Geographical Region of India Diamond Publication (2009) (Marathi)
- Patil S. G., Suryawanshi R. S., Pacharne S., Choudhar A. H.: Economic Geography, Atharav Prakashan, Pune. (2014) (Marathi).
- Aher A. B., Arekar R.: Commercial Geography, Atharav Prakashan, Pune. (2013) (Marathi).
- Datt & Sunderm: Indian Economy (2014)



Course-wise detail syllabus

F. Y. B. SC. MICROBIOLOGY

THEORY PAPER I: INTRODUCTION TO MICROBIOLOGY

Paper I: Term I

| Sr. No. | Topic | Lectures |
|---------|--|----------|
| 1. | Frontiers of Microbiology | 2 |
| 2. | A. History of Microbiology <ol style="list-style-type: none"> I. Discovery of microscope II. Micrographia of Anton von Leeuwenhoek and Robert Hooke III. Abiogenesis v/s biogenesis <ul style="list-style-type: none"> • Aristotle's notion about spontaneous generation • Redi's experiment • Louis Pasteur's & Tyndall's experiments | 6 |
| | B. Development of Microbiology in 19th century <ol style="list-style-type: none"> I. Observations and role of microorganisms in transformation of organic matter. <ul style="list-style-type: none"> • Germ theory of fermentation • Discovery of anaerobic life & physiological significance of fermentation II. Discovery of microbes as pathogens <ul style="list-style-type: none"> • Surgical antiseptics • Germ theory of disease – Koch's postulates & River's postulates | 4 |
| | C. Developments in 20th and 21st Centuries with respect to: <ul style="list-style-type: none"> • Vaccination and Chemotherapy • Contributions of Nobel Laureates in Immunology, Molecular Biology & Biotechnology | 4 |
| 3. | Morphological and differentiating characters of microorganisms: <ul style="list-style-type: none"> • Bacteria • Rickettsia • Protozoa • Algae • Fungi (Molds and Yeasts) • Viruses, viroids and prions <p>Principles in classification of Bacteria (Introduction to Bergey's Manual of Determinative and Systemic Bacteriology) and viruses (ICTV)</p> | 12 |
| 4. | Applications of Microbiology: <ol style="list-style-type: none"> i. Significance of normal flora and probiotics in human health ii. Microbes as Biofertilizers and Biocontrol Agents (e.g. Nitrogen fixers, Phosphate Solubilizers and <i>Bacillus thuringensis</i>) | 4 |



Paper I: Term II

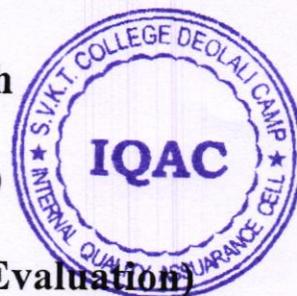
| Sr. No. | Topic | Lectures |
|---------|--|----------|
| 5. | I. Covalent and non-covalent bonding in biomolecules II. Concepts of pH and redox potential | 4 |
| | Chemistry of Biomolecules <ul style="list-style-type: none"> • Carbohydrates (Starch, Glycogen, Cellulose, Peptidoglycan) • Lipids (Triglycerides and phospholipids) • Structural and Functional Proteins (Hemoglobin, Immunoglobulin; flagellin and cytoskeletal proteins in bacterial cell) • Nucleic acids (DNA and RNA) | 16 |
| 6. | Bacterial Cytology Studies on structure, chemical composition and functions of the following components in bacterial cell: <ul style="list-style-type: none"> • Cell wall • Cell membrane • Endospore • Capsule • Flagella • Fimbriae and Pili • Ribosomes • Chromosomal & extra-chromosomal material • Cell inclusions (Gas vesicles, carboxysomes, PHB granules, metachromatic granules and glycogen bodies) | 16 |

THEORY PAPER II: BASIC TECHNIQUES IN MICROBIOLOGY

Paper II: Term I

| Sr. No. | Topic | Lectures |
|---------|--|----------|
| 1. | a. Units of measurement. Modern SI units (Length, volume, Weight) b. Microscopy : <ul style="list-style-type: none"> • Bright field microscopy: Structure, working of and ray diagram of a compound light microscope; Concepts of magnification, numerical aperture and resolving power. • Types, ray diagram and functions of – condensers, eye-pieces and objectives • Aberrations in lenses - spherical, chromatic, comma and astigmatism • Principles, construction, working and applications of: <ol style="list-style-type: none"> i. Dark field microscopy ii. Fluorescence microscopy • Confocal microscopy | 12 |

F. Y. B. A Compulsory English
(w. e. f. 2019-2020)
(Choice Based Credit System)
70:30-Pattern
(70-Semester-End Exam & 30-Internal Evaluation)



Prescribed Text: *Literary Gleam: An Anthology of Prose and Poetry* (Board of Editors-Orient BlackSwan)

Objectives:

- a) To expose students to the best examples of prose and poetry in English so that they realize the beauty and communicative power of English
- b) To instill human values and develop the character of students as responsible citizens of the world
- c) To develop the ability to appreciate ideas and think critically
- d) To enhance employability of the students by developing their linguistic competence and communicative skills
- e) To revise and reinforce structures already learnt in the previous stages of learning.

Semester-I

Prose:

1. Engine Trouble — R. K. Narayan
2. On Saying 'Please' — A. G. Gardiner
3. The Gift of the Magi — O. Henry

Poetry:

1. A Red, Red Rose — Robert Burns
2. Leave this Chanting and Singing — Rabindranath Tagore
3. The Felling of a Banyan Tree — Dilip Chitre

Grammar:

1. Articles
2. Prepositions
3. Verbs
Regular and Irregular Verbs
Auxiliary Verbs: Primary and Modal
4. Punctuation

Communication Skills:

1. Greeting and Taking Leave

2. Introducing Yourself
3. Introducing People to One Another
4. Making Requests and Asking for Directions
5. Making and Accepting Apology



Semester- II

Prose:

1. In Sahyadri Hills, A Lesson in Humility — Sudha Murthy
2. The Model Millionaire — Oscar Wilde
3. The Eyes are not Here — Ruskin Bond

Poetry:

1. My Heart Leaps Up — William Wordsworth
2. Ozymandias — P. B. Shelley
3. Success is Counted Sweetest — Emily Dickinson

Grammar:

1. Tenses
2. Subject-Verb Agreement
3. Vocabulary

Communication Skills

1. Inviting and Accepting/Declining Invitations
2. Making a Complaint
3. Congratulating, Expressing Sympathy and Offering Condolences
4. Making Suggestions, Offering Advice and Persuading

- Each semester shall have 3 credits for teaching. Each credit is equal to 15 hours, so this course shall have 45 teaching hours. In addition to that there shall be three hours allotted to internal evaluation. Changes as per the university guidelines shall be communicated from time to time.

Crosscutting Issues

Syllabus for B. Com. Semester –II

Subject Name: - Business Ethics - II

Course code:- 126 (D) June 2019



Depth of the program – Fundamental Knowledge

Objective of the Program

1. To enhance students' general awareness of ethical dilemmas at work.
2. To understand differing perceptions of interests in business-related situations
3. To introduce the concept of Corporate Social Responsibility, corporate Governance and explore its relevance to ethical business activity
4. To examine whether ethics set any boundaries on Accounting, marketing, IT, Social Media and workplace.
5. To prepare students to play a constructive role in improving the sustainable development with which they may become involved.

| Unit No | Unit Title | Contents | Purpose Skills to be developed |
|---------|------------------------|---|--|
| 1 | Business Ethics | Business ethics–Meaning, definitions, scope , objectives, need and Principles. Human values and moral –meaning, formation and importance. Professional Ethics-meaning and significance, management and ethics Gandhian approach in Ethics. Global Trends in Ethics. | 1. Equip the students with a skills to resolve the business problems with ethical norms. 2. Recognize the inherent conflict of interest in many business decisions. |