

# B.Sc. Honors Physics syllabus

Under

## CHOICE BASED CREDIT SYSTEM

School of Studies in Physics  
Jiwaji University, Gwalior

### ABILITY ENHANCEMENT COMPULSORY COURSES (AECC)

S.No.	Course name	Credit		
		Theory	Lab.	Tutorials
1	Environmental Science	4	2	
2	English Language	4	2	
3	Entrepreneurship Development			

## SEMESTER-I AECC-I: ENVIRONMENTAL SCIENCE

### UNIT-I

The Environment: The Atmosphere, Hydrosphere, Lithosphere, Biosphere, Ecology, Ecosystem, Biogeochemical Cycle (Carbon Cycle, Nitrogen Cycle).

### UNIT-II

Environment Pollution: Air Pollution, Water Pollution, Soil Pollution, Noise Pollution, Thermal Pollution, Radiation Pollution, Natural Disasters and their Management.

### UNIT-III

Population Ecology: Individuals, Species, Pollution, Community, Control Methods of Population, Urbanization and its effects on Society, Communicable Diseases and its Transmission, Non Communicable Diseases.

### UNIT-IV

Environmental Movements in India: Grass root Environmental movements in India, Role of women, Environmental Movements in Madhya Pradesh, State Pollution Control Board, Central Pollution Control Board.

### UNIT-V

Natural Resources: Conservation of Natural Resources, Management and Conservation of Wildlife, Soil Erosion and Conservation, Environmental Laws: Water Act, 1974, Air Act, 1981, The Wildlife (Protection) Act, 1972, Environment Protection, 1986.



## Semester II AECC-II ENGLISH LANGUAGE

### Structural Items

- Simple, compound and complex sentences.
- Co ordinate clauses (with but or Either-Or, Neither-Nor, Otherwise, Or else)
- Sub-ordinate clauses-noun clauses-as subject object and complement: Relative clouses (restrictive and non-restrictive clauses). Adverb clauses (open and hypothetical conditional, with because, though, here, so that, as long as, as soon as).
- Comparative Clauses (as+adjective/qdverb+as-to sooner that).

### Tenses-

- Simple present, progressive and present perfect
- Simple past, progressive and past perfect.
- Indication of Futurity.

The passive (Simple present and past, present and past perfect and toinfinitive structure.

### Reported Speech-

- Declarative sentences
- Imperatives
- Introgatives-wh-question, Yes/No Questions
- Exclamatory sentences.

Models (will, shall, should, would, ought to has to have to ought, can could, may/might and need.)

- Verb structures (infinitives and gerund)
- Linking devices-

**Note:** The above language items will be introduced to express the following communicative functions-

- Seeking and imparting information
- Expressing attitudes-intellectual and emotional
- Persuasion and dissuasion etc.

**Note:** Questions on all the units shall be asked from the prescribed text, which will comprise/specimens of popular creative writing and the following items:

- Indian Art : Meaning of Art, Features of Indian Art, Elementary knowledge of paintings, Music, Dancing, Sculpture Archaeology, Iconography and Other Social Arts.
- Indian Literature : Ancient Indian Literature, Elementary knowledge of Vedic Literature, Mahabharata, Ramayan and Other Main Granthas.
- Indian Freedom Struggle: Freedom Struggle of 1857, National Consciousness Non-Cooperation Movement. Civil Disobedient Movement Quit India Movement Contribution of revolutionaries in freedom struggle.
- Indian Constitution: Introduction, Main features of Constitution Fundamental Rights, Fundamental Duties.

## ACC-III ENTREPRENEURSHIP DEVELOPMENT

### Unit-1

Entrepreneurship : Definition, Characteristics and significance. Types & functions of an entrepreneur, Qualities of a good Entrepreneur, Entrepreneurial motivation factors.

### Unit-II

Women Entrepreneurship : Opportunities and problems.

Search for a business idea, sources of ideas, selection of project idea.

### Unit-III

Preparation of detailed Project Report.

Selection of Types of organisation. Concept and characteristics of Sole Proprietorship, Partnership and Co-operative Society. Factors influencing the choice of organisation.

### Unit-IV

Role of Regulatory institutions: Particular study of DIC, Pollution Control Board, Food and Drugs Administration, Electricity Board & Municipal Corporation.

Role of Promotional Institutions: KVIC, MPFC, Scheduled banks, Women Economic Development Corporation of MP.

### Unit -V

Incentives and Subsidies: Concepts and needs. Capital Investment Subsidy, Interest Subsidy, Subsidy for power, Margin Money Assistance, Special incentives to Women Entrepreneurs.

Major Govt. Schemes: PMRY, SJRY, RDSY, Deendayal Swarojagar Yojana.

### Recommended Books -

1. Entrepreneurial Development by S.S. Khanka (S.Chand)
2. Entrepreneurial Development by Taneja & Gupta (Galgotia Pub.)
3. Entrepreneurial Development by Vasant Desai (Himalaya)
4. Entrepreneurial Development in India by C.B. Gupta & Srinivasan (Sultan Chand & Sons)
5. उद्यमिता विकास - जी.एस. सुधा (रमेश बुक डिपो)
6. उद्यमी उद्योग और स्वरोजगार - सेडमेप 16-ए, अरेरा हिल्स, भोपाल।
7. स्वरोजगार मार्गदर्शिका - तद्वैव
8. उद्यमिता क्यों और कैसे - एम.पी. कॉन, गंगोत्री भवन, टी.टी. नगर, भोपाल।
9. उद्यमिता (मासिक पत्रिका) उद्यमिता विकास केन्द्र, 16-ए, अरेरा हिल्स, भोपाल।

