

Dr. Gotmare. (1)

B.Sc

Syllabus

FOUNDATION COURSE



2)

| B.Sc. (Foundation Course) |          |        |                       |       |        |
|---------------------------|----------|--------|-----------------------|-------|--------|
| Class                     | Semester | Paper  | Title                 | Marks | Credit |
| F.Y.B.Sc.                 | I        | 100101 | Environmental Science | 50    | 2      |
|                           |          |        | Sub Total             | 50    | 2      |
| F.Y.B.Sc.                 | II       | 200101 | Women's Issue I       | 50    | 2      |
|                           |          |        | Sub Total             | 50    | 2      |
|                           |          |        | Total                 | 100   | 4      |
| S.Y.B.Sc.                 | III      | 300101 | Women's Issue II      | 50    | 2      |
|                           |          |        | Sub Total             | 50    | 2      |
| S.Y.B.Sc.                 | IV       | 400101 | English-I             | 50    | 2      |
|                           |          |        | Sub Total             | 50    | 2      |
|                           |          |        | Total                 | 100   | 4      |
| T.Y.B.Sc.                 | V        | 500101 | English-II            | 50    | 2      |
|                           |          |        | Sub Total             | 50    | 2      |
| T.Y.B.Sc.                 | VI       | 600101 | English-III           | 50    | 2      |
|                           |          |        | Sub Total             | 50    | 2      |
|                           |          |        | Total                 | 100   | 4      |
|                           |          |        | Grand Total           | 300   | 12     |



F.Y.B.Sc

Paper 100101 ENVIRONMENTAL SCIENCE 2 CREDITS

Objectives:

- To bring about awareness about the environment and its resources.
- To study the various concepts for conservation of the environment.

UNIT I: ENVIRONMENTAL SCIENCE -I (15 Lectures)

- Concept & types of resources.
- Current status of major resources: Water, land, mineral, biological resources.
- Need for conservation of resources.
- Energy -Conventional and nonconventional energy resources
- Land: Land use pattern and optimization; metal and non-metal resources,
- soil as resource, Soil Erosion
- Concept of sustainable development
- Environmental Organizations & Agencies-CITES, EPA, IUCN & MAB.

UNIT I: ENVIRONMENTAL SCIENCE -II (15 Lectures)

- Air: Components of air and their significance; common air pollutants, their sources, effects
- Greenhouse gases and global climate change,
- Common water pollutants, their sources, effect
- Mining and its effect
- Agricultural practices and their polluting effects;
- Types of solid wastes, strategies of solid waste management.
- Noise Pollution: Sources, types & effects of pollutants
- Environmental Laws in India: Water Prevention & Control of Pollution Act 1974, Air Prevention & Control of Pollution Act 1981, Environment Protection Act 1986 & Biological Diversity Act 2002.

(H)

## REFERENCES

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4. Dara S.S. & Mishra D.D.: Text book of Environmental Chemistry & Pollution Control. Revised edition; Publsh. S. Chand.
5. David D. Kemp: Global Environmental Issues – A Climatological Approach. Roul Ledge & Company, London & N.Y. 1990.
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14. P.D. Sharma: Environmental Biology. Rastogi Publications 1996.
15. R. Kumar: Environmental Pollution & Health Hazards in India. Abhish Publ. House, New Delhi 1987.
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THEORY QUESTION PAPER PATTERN

6

FIRST SEMESTER

(ENVIRONMENTAL SCIENCE)

Time: 2hrs

Max. Marks: 50

N.B. All Questions are Compulsory

- Q1. Attempt **any seven** of the following questions. 14 marks  
(i to x)
- Q2. Answer **any two** of the following question. 12 marks  
(i to iv )
- Q3. Describe **any three** of the following. 12 marks  
(i to iv )
- Q4. Write an account on **any three** of the following. 12 marks  
(i to iv )
-

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- Q4. Write an account on **any three** of the following. 12 marks  
(i to iv )
-



FY B.Sc.  
Semester II

Paper: 200101

Women's Issues - I

Credits: 2    Lectures: 30    Marks: 50

- Objectives: - To understand new and emerging women's issues in India.  
 - To empower to deal with these issues & problems.

| COURSE CONTENT:   | Credits | Lectures | Marks |
|---|---------|----------|-------|
| <b>I) Introduction &amp; Social Construction of Gender:</b>                                   |         |          |       |
| Socialization of the girl child, Patriarchy and gender disparity.                             | 0.5     | 8        | 13    |
| Propagation of stereotypes through advertisements, films & media.                             |         |          |       |
| <b>II) Issues affecting the quality of life of women:</b>                                     | 0.5     | 7        | 12    |
| Health Issues of Women: Nutrition, Female mortality rate, Sex selection and Female foeticide. |         |          |       |
| Problems of women' education: access and retention.   |         |          |       |
| Gender inequality in academic achievement.  |         |          |       |
| <b>III) Violence against Women:</b>   | 0.5     | 8        | 13    |
| Violence within the home: girl child abuse, women abuse in the family.                        |         |          |       |
| Sexual harassment at workplace.   |         |          |       |
| Girl & Women Trafficking.   |         |          |       |
| <b>IV) Feminism &amp; Empowerment:</b>  | 0.5     | 7        | 12    |
| Concept of Feminism.  |         |          |       |
| Types of Feminism   |         |          |       |
| Empowerment of Women: Meaning & Significance  |         |          |       |
| Education for empowerment and development of women.   |         |          |       |

**Pedagogy:**

The participation and involvement of students should be ensured through discussions in the classroom.



Organizing seminars / small group seminars by inviting experts from NGO's and encouraging discussions.

Wherever possible, illustrations should be drawn from the local situation.

Newspaper reports and television features should be used by way of illustration.

Students should be encouraged to write short essays on the local situation and local issues under the guidance of the teacher.

Use of newspapers and magazines and the Internet is to be encouraged.

The use of audio-visual media should be a necessary and important component of instruction.

The students have to be sensitized to the structural roots of the issues as well as to the effects of these issues on the existing social structure. In order to give the students a clear understanding of the issues, it will be rewarding to use the methodology of role playing.

**References :**

Agarwal, S.P.(2001): Women's Education in India: Present status, Perspective Plan, Statistical Indicators with a Global View, Vol.3, Concept Publishing Company, New Delhi.

Bhadoria, Mridula-1997: Women in India, New Delhi. APH Publication Corp.

Chanana, Karuna. 1988: Socialization, Women and Education: Explorations in Gender Identity, New Delhi: Orient Longman.

Dube, Leela et.al. (eds.) 1986: Visibility and Power: Essays on Women in Society and Development. New Delhi: OUP.

Ghadially, Rehana (ed.) 1988: Women in Indian Society. New Delhi: Sage.

Mies Maria. 1980: Indian Women and Patriarchy: Conflicts and Dilemmas of Students and Working Women. New Delhi: Concept Publications.

Pandya Rameshwari, 2008: 'Women Welfare and Empowerment in 'India: Vision for 21<sup>st</sup> century', ed. by New Century Publications, New Delhi.

Patel, V. 2002: Women's challenges of the new millennium, Gyan Publishing House, New Delhi.

Poonacha, Veena. 1997: Women, empowerment and political participation. Mumbai: RCWS

Sharma, Bela Rani, 1997: Women: Marriage, Family, Violence & Divorce. Jaipur, Mangal Deep Publication.

Sikri R., 1999: Women & Sexual Exploitation, New Deihi. Kanishka Publication.

Swarup, Hail, 2001: Women in Crisis, New Delhi. Gyan Publication, New Delhi.

Tandon, R.K. 1998: Women in Modern India. Delhi. Indian Publication Distributors.

### Reports

Government of India. 1974. Towards Equality, Report of the Committee on the Status of Women.

“Responses to Domestic Violence in India: A Study in Karnataka and Gujarat.” Research Centre for Women’s Studies, SNDT Women’s University, 2000.

World Development Report 2012.

Human Development Report 1995.

### Websites:

<http://www.domesticviolence.in> - Domestic Violence Statistics.

<http://www.indiatogether.org/manushi/issue120/domestic.htm> - Kishwar, M. 2005, Laws Against Domestic Violence.

WHO website. Violence Against Women Factsheet # 239. Available at [www.who.int/mediacentre/factsheets/fs239/en/index.html](http://www.who.int/mediacentre/factsheets/fs239/en/index.html)



**B.Sc. - II Semester III**

Paper - 300101

**Foundation Course- III  
Women's Issues- II**

300101

**Credits: 2 Lectures: 30 Marks: 50**

- Objectives:
- To know the demographic profile of women in India.
  - To understand the present situation and changes in the status of women.

| <b>COURSE CONTENT:</b>   | <b>Credits</b> | <b>Lectures</b> | <b>Marks</b> |
|--|----------------|-----------------|--------------|
| <b>I) Demographic Profile of Women in India:</b><br>Sex-Ratio, Health, Education and Employment.   | 0.5            | 7               | 12           |
| <b>II) Women and Work:</b><br>a) Women in the unorganized sector<br>b) Women in the organized sector<br>c) Legal provisions for the protection of working women.         | 0.5            | 7               | 12           |
| <b>III) Women and Development:</b><br>a) Governmental policies & strategies for women's development<br>b) Role of voluntary organizations & NGO's in women's development | 0.5            | 8               | 13           |
| <b>IV) Towards Change:</b><br>a) A National Policy for Empowerment of Women - 2001<br>b) The role and importance of media in portraying women                            | 0.5            | 8               | 13           |

**Methodology:**

- Lecture cum discussion
- Documentaries, Films, guest lectures
- Library research projects & Presentations

Singh K.V. (2007) Women Issues- Empowerment and Gender Discrimination, Delhi, Vista International Publishing House.

Tandon, R.K. ( 1994) Women in Modern India. Delhi. Indian Publication Distributers.  
Thakur Anil Kumar (2008) Gender Empowerment and Development, New Delhi, Deep & Deep Publications.

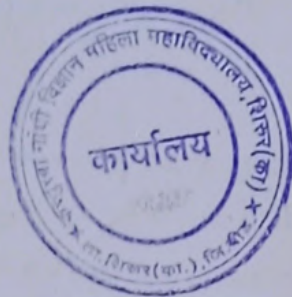
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National policy for the empowerment of women, (2001) New Delhi: Government of India.

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Monday, December 09, 2013

Faculty Name – B.Sc.

Course Name: B.Sc.

Scheme: Semester IV

| Subject         | L | Cr | P/T | D    | TP | TW | T  |
|-----------------|---|----|-----|------|----|----|----|
| Language Skills | 2 | 2  |     | 1.15 | 35 | 15 | 50 |

Semester IV

Title of the Paper: Intermediate English Language Skills for Science & Technology

Computer Code No:

Objectives:

- To be able to listen to short extracts on topics of general English and areas of science
- To be able to speak for an extended period of time on familiar and unfamiliar topics in general science.
- To be able to skim and scan topics of general science
- To be able to write instructions and describe scientific processes and also instruction manuals of technological products.

Learning Outcomes:

At the end of the course students will be able to-

- Give a talk or follow a talk on familiar and unfamiliar topics of science and keep up formal and informal conversations on a fairly wide range of topics.
- Students will be able to scan and skin fairly high level texts and understand detailed instructions and advice.
- Students will be able to make extensive lecture notes and design instructions manuals.

Course Materials:

Note: The text book to be used will be the same as used in semester 4 and 5. Selected portions have been indicated for most units.

Unit 1: Listening Skills

Note: The teacher may choose the selected passages from the prescribed text or recommended texts to design listening activities for making lecture notes. The teacher is also recommended to use the audio CD's from the recommended books for giving listening practice to the students.

Monday, December 09, 2013

*Text: English for students of Science by Roy & Sharma PC, 1996, Orient Black Swan*

*Note: The prescribed text is for focused use. The teachers are strongly recommended to supplement their material from real life and scientific texts.*

The recommended lessons are:

- a) Year of 2050
- b) Mushroom of Death
- c) Miracle of Grass
- d) Human Environment

**Unit 2: Speaking Skills**

Speaking Skills: Giving short speeches using accurate expressions

**Unit 3: Reading**

Skimming and Scanning from the above mentioned lessons and exercises given in the lessons:

**Unit 4: Writing Skills**

- Describe scientific processes from experimental conducted by the student in science course.
- Learning to understand and write instruction manuals for technological product ex how to use camera, music system etc.

**Evaluation scheme:**

**Internal**

**15 marks**

- a) Details: Listening & Speaking Skills 10 marks
- b) Testing for grammatical accuracy in writing 05 marks  
(Do as Directed, correct usage of grammar etc)

**External**

**35 marks**

- a) Unused Comprehension Passage 15 marks  
(includes grammar from recommended text)
- b) Writing Instructions 10 marks
- c) Describing a process 10 marks



Monday, December 09, 2013

**Required Reading:**

1. Comprehension Connections: Bridges to Strategic Reading by Tanny McGregor Published February 7th 2007 by Heinemann Educational Books
2. Deeper Reading by Kelly Gallagher Published January 1st 2004 by Stenhouse Publishers
3. Reading with Meaning (Paperback) by Debbie Miller Published January 1st 2002 by Stenhouse Publishers
4. The Longman Writer: Rhetoric, Reader, Research Guide, and Handbook (8th Edition) Judith Nadell (Author), John Langan (Author), Eliza A. Comodromos (Author)
5. Seeing and Writing 3 Donald McQuade (Author), Christine McQuade (Author)

Monday, December 09, 2013

Faculty Name – B.Sc.

Course Name: B.Sc.

Scheme: Semester V

|  | Subject             | L | Cr | P/T | D    | TP | TW | T  |
|--|---------------------|---|----|-----|------|----|----|----|
|  | Listening & Reading | 2 | 2  |     | 1.15 | 35 | 15 | 50 |

Semester V

Title of the Paper: Advanced English Language Skills for Science & Technology

Computer Code No:

Objectives:

- To follow arguments & lectures and make notes
- To be able to comprehend nuances of language e.g. humor, sarcasm, criticism, appreciation etc.
- To be able to read scientific article & reports, understand instructional manuals, scientific vocabulary, word list and technical terms.
- To be able to read general English texts – descriptive, narrative, expository, and argumentative texts.

(See link: [www.vocabulary.com/lists/88789](http://www.vocabulary.com/lists/88789))

Learning Outcomes:

At the end of the course students will be able to-

- Read quickly enough to cope with an academic course, to read the media for information or to understand non-standard correspondence.
- Contribute effectively to meetings and seminars within own area of work or keep up a casual and formal conversation with a good degree of fluency and accuracy coping with abstract expression.

Course Materials:

Note: The text book to be used will be the same as used in semester 4 and 5. Selected portions have been indicated for most units.



Monday, December 09, 2013

*Text: English for students of Science by Roy & Sharma PC, 1996, Orient Black Swan*

The recommended lessons are:

- Computers
- Experiment and Experience
- Benares
- Adventure of Blue Carbuncle

**Unit 1: Listening**

*Note: The teacher may choose relevant passages from the prescribed text or recommended texts to help students to be able to follow arguments and lectures and make notes.*

**Unit 2: Reading**

*Note: The teacher may use materials from other sources to help students design their own material*

Using the recommended chapters to read scientific vocabulary and technical terms and to understand the information given. To design instruction manuals

**Evaluation scheme:**

|   |                     |
|---|---------------------|
| <b>Internal</b>   | <b>15 marks</b>     |
| a) Listening Exercise   | 10 marks            |
| b) Grammar (Vocabulary)   | 05 marks            |
| <br><b>External</b>   | <br><b>35 marks</b> |
| a) Unseen Comprehension / Scientific Passage                                | 15 marks            |
| b) Unseen Comprehension / Scientific Passage including Grammar & Vocabulary | 10 marks            |
| c) Designing Manuals  | 10 marks            |

(18)

Monday, December 09, 2013

Faculty Name – B.Sc.

Course Name: B.Sc.

Scheme: Semester VI

|  | Subject            | L | Cr | P/T | D    | TP | TW | T  |
|--|--------------------|---|----|-----|------|----|----|----|
|  | Speaking & Writing | 2 | 2  |     | 1.15 | 35 | 15 | 50 |

Semester VI

Title of the Paper: Active English Language Skills for Science & Technology

Computer Code No:

Objectives:

- To participate in mock interviews and group discussion on topics related to science and technology.
- To write letters and emails of inquiry, requests, complaints and applications etc.
- To master the art of preparing power point slides for their area of study with special attention to accurate language work.

Learning Outcomes:

At the end of the course students will be able to -

- Contribute effectively to meetings and seminars within own area of work or keep up a casual conversation with a good degree of fluency, coping with abstract expression.
- Prepare / draft professional correspondence, take reasonably accurate notes in meeting or write an essay which shows an ability to communicate.

Course Materials:

*Note: The text book to be used will be the same as used in semester 4 and 5. Selected portions have been indicated for most units.*



Monday, December 09, 2013

**Unit 1: Speaking Skills**

*Note for the teacher: Please conduct mock job interviews and give feedback to the students. Please conduct group discussion on subjects related to science & technology to enhance their persuasive speaking skills and to develop scientific vocabulary and technical terms. Please take more of features of accurate grammar.*

**Unit 2: Preparing Power Point Presentations**

*Note for the teacher: Use the following lessons for teaching how to make PPTs.*

*Text: English for students of Science by Roy & Sharma PC, 1996, Orient Black Swan*

- a) Chapter 11: Ultimate Thule
- b) Chapter 12: Grief
- c) Chapter 15 : Bankers are just like anybody else
- d) Chapter 16: Discovery

**Unit 3: Letter and Email writing**

- Letters / emails of enquiry (RTI, Data Collection etc)
- Letters / emails of request for funding of research, grant proposals etc
- Letters / emails of complaint
- Letters / emails of job application
- Letters / emails for CV .
- Scientific reports of experiments
- Seminars, Symposia, Research Findings

**Evaluation scheme:**

**Internal**

- a) PPT Presentations
- b) Grammar Accuracy

**15 marks**

10 marks

05 marks

**External**

- a) Letter / Email writing
- b) Report Writing
- c) Grammar Vocabulary related to scientific & general everyday use

**35 marks**

15 marks

10 marks

10 marks