

**Shri Shivaji Education Society, Amravati's  
Y.D.V.D. Arts, Commerce College, Teosa. Dist-Amravati**

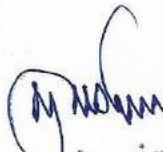
**Permission Letter**

We the under signed following students of B.Com II , B.A. II and B.Sc. II wants to seek permission for Environmental project for our study curriculum purpose. If provided permission we will be highly obliged as this project is a part of our curriculum so kindly do the needful.

Thanking You

Students of B.Com II, B.Sc. II and B.A II – 2020-21



  
**Principal**  
Y.D. V.D Arts, Commerce  
College, Teosa, Dist. Amravati



Shri Shivaji Education Society, Amravati's

## Y.D.V.D. ARTS, COMMERCE COLLEGE,

Teosa Dist. Amravati (M.S.) 444903



- Re-accredited by NAAC, Bangalore
- Recognized by UGC, New Delhi u/s 2f & 12B
- Affiliated to Sant Gadge Baba Amravati University, Amravati

• **President**  
Hon'ble Shri. Harshwardhan P. Deshmukh

• **Principal**  
Dr. N. J. Meshram  
M.Sc., M.Phil., Ph.D.

• **Founder President**  
Dr. Panjabrao Alias Bhausaheb Deshmukh

- College Code : 124
- Town Code : 012
- AISHE Code : C-42887-2016
- DDO Code : 06610100013
- Phone - 07225-295031
- E-mail - ydvcollege@gmail.com
- Website - www.ydvcollege.org

### Permission Sanctioned Letter

Following students of B.Com II, B.A. II and B.Sc. II are here by permitted to perform Environmental project for their study curriculum purpose. Wishing them better prospect and Future.



  
Principal

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## Environmental project of B.Com II, B.Sc. II and B.A II – 2020-21

### List of Students of B.Com II

Sr. No	Name of Student	Class	Title of Project	Duration	
				From	To
1	Achal Subhashrao Wankhade	B.com.II	Information about Trees in Dehani Village for 20 years	30-06-20	20-07-20
2	Anita Suresh Dhande	B.com.II	Pollution During Fair of Chandraji Maharaj Tempel, Warha	20-07-20	25-07-20
3	Neha Sharad Darekar	B.com.II	Side effect of Ghutka in Tekoda Village	22-07-20	29-07-20
4	Siddhant Rajendra Pande	B.com.II	Water Pollution in Village	15-08-20	19-08-20
5	Ujawala Janraoji Bure	B.com.II	Rain fall & atmosphere in Bharwadi from 30-40 years	17-08-20	25-08-20
6	Priya Haridas Amzare	B.com.II	Rain fall & atmosphere in Bharwadi from 10 years	17-08-20	25-08-20
7	Vaishnavi Prakash Padole	B.com.II	Water Pollution in Village	15-08-20	19-08-20
8	Tejaswini Sanjayrao Kadu	B.com.II	Water Pollution in Village	15-08-20	19-08-20
9	Pooja Manohar Dhanorkar	B.com.II	Rain fall & atmosphere in Bharwadi from 30years	17-08-20	25-08-20
10	Priti Dnyaneshwar Ajankar	B.com.II	Information about Trees in Talegaon Thakur Village	15-08-20	19-08-20
11	Bharti Rajendra Bhalerao	B.com.II	Rain fall & atmosphere in Bharwadi from 30years	17-08-20	25-08-20
12	Prajakta Bhimrao Manohare	B.com.II	Information about Tree in Madegaon from 2011-2020	30-06-20	20-07-20
13	Rupali Digambar Wankhade	B.com.II	Information about House Crow	17-08-20	25-08-20
14	Kajal Baba Shaha	B.com.II	Sewage problems in Teosa	30-06-20	20-07-20
15	Pranjali Rajendra Vinchurkar	B.com.II	Sewage problems in Rainy Season	15-08-20	19-08-20
16	Bhushan Manikrao Tayde	B.com.II	Information about Trees in Dehani Village for 20 years	30-06-20	20-07-20
17	Chaitanya Ishwarrao Wankhade	B.com.II	Pollution During Fair of Chandraji Maharaj Tempel, Warha	20-07-20	25-07-20



*(Signature)*  
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Environmental project of B.Com II, B.Sc. II and B.A II – 2020-21

### List of Students of B.Sc II

Sr. No	Name of Student	Class	Title of Project	Duration	
				From	To
1	Akshay Dhanraj Kale	B.Sc.II	Natural Resource of Sawalapur	03-06-21	30-06-21
2	Ku.Achal Wasudeo Tantarvale	B.Sc.II	Medicinal Plant in Rajurwadi	02-07-21	30-07-21
3	Abhishek jagjiwan Dalal	B.Sc.II	Water Harvesting in Women Hostel	04-07-21	30-07-21
4	Ku.Chitra Ramdas Uike	B.Sc.II	Botanical Garden in Y.D.V.D College	01-06-21	30-06-21
5	Ku.Dipti Pramodrao Ghonge	B.Sc.II	Water Harvesting in Botanical Garden	1-08-21	30-08-21
6	Gayatri Gajanandrao Kohale	B.Sc.II	Water Pollution of Pingalai River	1-07-21	30-07-21
7	Ku.Hrutika Ashokrao Kohale	B.Sc.II	Causes of Ozone Layer depiction & its Effect on Human	01-05-21	30-05-21
8	Ku.Jyoti Manoharrao Mundane	B.Sc.II	Medical Properties of Jamun	01-05-21	30-05-21
9	Ku.Komal Fakira Jondhale	B.Sc.II	Ozone Layer depiction & its Effect on Human	02-06-21	30-06-21
10	Kartik Bhaskarrao Yeokar	B.Sc.II	Pollution in Wardha River	01-06-21	30-06-21
11	Ku.Kalyani Gajanandrao Misalkar	B.Sc.II	Well Recharge of Y.D.V.D. College	8-07-21	30-07-21
12	Ku.Laxmi Sureshrao Bele	B.Sc.II	Medicinal Properties of Tulsi	3-07-21	30-07-21
13	Ku.Mayuri Shankarrao Thakare	B.Sc.II	Dugwell Recharge	3-07-21	30-07-21
14	Ku.Nikita Damodarrao Gaikwad	B.Sc.II	Last 5 Year Chemical Fertilizer used by Famers in village Kavhalgavan	01-06-21	30-06-21.
15	Ku.Payal Ashokrao Parhad	B.Sc.II	Conservation of Water of Jawara Village, Tq- Tiosa	02-07-21	30-07-21
16	Pratik pramod Wage	B.Sc.II	Medicinal Uses of AZARDICAL Indica(NEEM)	03-06-21	30-06-21
17	Ku.Ritika Sudhirrao Wankhade	B.Sc.II	Water Harvesting of Bhrvery Nursery Teosa	01-07-21	30-07-21



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Sr. No	Name of Student	Class	Title of Project	Duration	
				From	To
1	Achal Babanrao Hegde	B.A II	Water Pollution in Village	30-06-20	20-07-20
2	Vaibhav Ashok Ramteke	B.A II	Fertilizer use for farm	20-07-20	25-07-20
3	Roshan Pradip Sasane	B.A II	Side effect of Fertilizer use for farm about 10 years	22-07-20	29-07-20
4	Gaurav Vijayrao Wagh	B.A II	Information about Tree in Satargaon from 10 years	15-08-20	19-08-20
5	Samiksha Surendra Tagade	B.A II	Side effect of Fertilizer use for farm about 10 years in Shendurjana Bazar	17-08-20	25-08-20
6	Shital Santoshrao Khshirsagar	B.A II	Information about Tree in Mozari from 10 years	17-08-20	25-08-20
7	Pratiksha R. Amle	B.A II	Information about Tree in Wathoda from 10 years	15-08-20	19-08-20
8	Salma Mehboob Shaha	B.A II	Information about Tree from 10 years	15-08-20	19-08-20
9	Ashvini Vasantrao Pathare	B.A II	Side Effect from Water Pollution in Village	17-08-20	25-08-20
10	Pallavi Ashokrao kalaskar	B.A II	Side effect from Smoking	15-08-20	19-08-20
11	Achal Ramvijay Bhokse	B.A II	Side effect from Ghutka	17-08-20	25-08-20
12	Nikita Mahadeora Kawanpure	B.A II	Side Effect from Water Pollution in Talegaon Thakur	30-06-20	20-07-20
13	Durga Sheshraoji Edmachi	B.A II	Information about Tree in Dapori Khurd from 10 years	17-08-20	25-08-20
14	Dipali Dhanraj Khandare	B.A II	Rashtra Sant Tukdoji Maharaj Information	30-06-20	20-07-20
15	Payal Vijayrao Patil	B.A II	Pingali River Pollution in Talegaon Thakur	15-08-20	19-08-20
16	Ku.Ankita Shrikrushna Thakare	B.A II	Side effect from Ghutka	30-06-20	20-07-20
17	Ku.Alfiya Usman Shekh	B.A II	Side Effect from Water Pollution in Talegaon Thakur	20-07-20	25-07-20



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# Syllabus of Environment Studies of SGB Amravati University

42

## 27. ENVIRONMENTAL STUDIES

Total Marks : 100

### PART-A

#### SHORT ANSWER PATTERN

25 Marks

#### 1. The Multidisciplinary nature of environmental studies

- . Definition, scope and importance.
- . Need for public awareness.

(2 lecture hours)

#### 2. Social Issues and the Environment

- . From Unsustainable to Sustainable development
- . Urban problems related to energy
- . Water conservation, rain water 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. (7 lecture hours)

#### 3. 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. (6 lecture hours)

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*[Handwritten Signature]*

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**PART-B**  
**ESSAY TYPE WITH INBUILT CHOICE**

50 Marks

**4. 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.


(8 lecture hours)

**5. 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 :-
  - Forest ecosystem
  - Grassland ecosystem
  - Desert ecosystem
  - Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries)

(6 lecture hours)



  
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**6. 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.
- (8 lecture hours)


**7. 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
    - . Role of an individual in prevention of pollution.
    - . Pollution case studies.
    - . Disaster management : floods, earthquake, cyclone and landslides.
- (8 lecture hours)

**PART-C****ESSAY ON FIELD WORK****25 Marks****8. Field work**

- . Visit to a local area to document environmental assets - river / forest / grass land / hill / mountain
  - . Visit to a local polluted site - Urban / Rural / Industrial / Agricultural
  - . Study of common plants, insects, birds.
  - . Study of simple ecosystems - pond, river, hill slopes, etc.
- (5 lecture hours)



  
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- (Notes : i) Contents of the syllabys mentioned under paras 1 to 8 shall be for teaching for the examination based on Annual Pattern.
- ii) Contents of the syllabys mentioned under paras 1 to 4 shall be for teaching to the Semester commencing first, and
- iii) Contents of the syllabys mentioned under paras 5 to 8 shall be for teaching to the Semester commencing later.

**LIST OF REFERENCES :-**

- 1) Agarwal, K.C., 2001, Environmental Biology, Nidi Publ. Ltd., Bikaner.
- 2) Bharucha Erach, The Biodiversity of India, Mapin Publishing Pvt. Ltd., Ahmedabad - 380 013, India, Email : [mapin@icenet.net](mailto:mapin@icenet.net) (R)
- 3) Brunner R.C., 1989, Hazardous Waste Incineration, McGraw Hill Inc. 480p.
- 4) Clark R.S., Marine Pollution, Clanderson Press Oxford (TB)
- 5) Cunningham, W.P.Cooper, T.H.Gorhani, E & Hepworth, M.T., 2001, Environmental Encyclopedia, Jaico Publ. House, Mumbai, 1196p.
- 6) De A.K., Environmental Chemistry, Wiley Eastern Ltd.
- 7) Down to Earth, Centre for Science and Environment (R)
- 8) Gleick, H.P. 1993, Water in Crisis, Pacific Institute for Studies in Dev., Environment & Security. Stockholm Env. Institute, Oxford Univ. Press. 473p.
- 9) Hawkins R.E., Encyclopedia of Indian Natural History, Bombay Natural Histroy Society, Mumbai (R)
- 10) Heywood, V.H. & Watson, R.T. 1995, Global Biodiversity Assessment, Cambridge Univ. Press 1140p
- 11) Jadhav, H & Bhosale, V.M. 1995, Environmental Protection and Laws, Himalaya Pub. House, Delhi. 284 p.
- 12) Mckinney, M.L. & Schoch, R.M. 1996, Environmental Science Systems & Solutions, Web Enhanced Edition. 639 p.
- 13) Mhaskar A.K., Matter Hazardous, Techno-Science Publications (TB)
- 14) Miller T.G. Jr., Environmental Science, Wadsworth Publishing Co. (TB)
- 15) Odum, E.P., 1971, Fundamentals of Ecology, W.B.Saunders Co., U.S.A., 574p.
- 16) Rao M.N. & Datta A.K., 1987, Waste Water Treatment, Oxford & IBH Publ. Co. Pvt. Ltd. 345 p.
- 17) Sharma B.K., 2001, Environmental Chemistry, Goel Publ. House, Meerut.
- 18) Survey of the Environment, The Hindu (M)
- 19) Townsend C., Harper J., and Michael Begon, Essentials of Ecology, Blackwell Science (TB)



*M. N. W.*  
Principal  
Y.D.V.D Arts, Commerce  
College, Teosa, Dist. Amravati

- 20) Dr. Deshpande A.P., Dr. Chudiwale A.D., Dr.Joshi P.P. & Dr. Lad A.B. : Environmental Studies, Pimpalpure & Company Pub., Nagpur.
- 21) डॉ. विठ्ठल घारपुरे : पर्यावरणशास्त्र, पिंपळापुणे अँड कंपनी पब्लिशर्स, नागपूर.
- 22) Trivedi R.K., Handbook of Environmental Laws, Rules, Guidelines, Compliances and Standards, Vol. I and II, Enviro Media (R)
- 23) Trivedi R.K. and P.K. Goel, Introduction to Air Pollution, Techno-Science Publications (TB)
- 24) Wagner K.D., 1998, Environmental Management, W.B.Saunders Co., Philadelphia, USA 499p.

(M) Magazine

(R) Reference

(TB) Textbook

- 25) Environmental Studies : R.Rajgopalan, Oxford Uni. Press, New Delhi, 2005
- 26) Environmental Chemistry and Pollution by Dr.N.W.Ingole, D.M.Dharmadhikari, Dr.S.J.Patil, Dasganu Prakashan, Nagpur.

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*(Handwritten signature)*

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**Shri Shivaji Education Society, Amravati's  
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**Environmental Projects**

**Sample of Environmental Projects 01**

Name → Pooja . R. Nimkhokate  
 Class → B.Sc - II SEM - II  
 Sub → ENVIRONMENTAL SCIENCE  
 Y.D.V.D. Arts, Commerce College  
 Teosa

*Pooja*



Page No. \_\_\_\_\_  
 Date \_\_\_\_\_

Botanical Gardens

**Information :-**  
 Botanical gardens derive their resources to be the study and conservation of plants as well as making the world's plant species diversity known to the public. These gardens also play a central role in meeting human needs and providing well being.

**Function of botanical garden :-**  
 Botanical gardens are suitable locations for investigations into pollination ecology and dispersal, plant conservation genetics and introduction of alien species. Several botanical gardens have herbaria and libraries as an integral part of their facilities and often serve as materials for research and education.

**Benefits of botanical Garden :-**  
 Increase active botanical such as rhinoceros, strength and true immune functions. Botanical herbaria such as grass for research. Conservation of plants and maintain evolutionary functions. Botanical such as...

Page No. \_\_\_\_\_  
 Date \_\_\_\_\_

It is a kind of diverse garden psychological symptoms such as insomnia, anxiety, and depression.

**Conservation :-**  
 Botanical gardens often lack in isolation with each other - exchanging seeds, pollen and other genetic information to preserve rare, threatened or endangered species. In fact a number of plants that are extinct in the wild are kept alive solely through the efforts of botanical garden.

**Some Information :-**  
 Botanical gardens are educational in that they provide an opportunity to see plants that are closely related. When I first started out in restoration ecology, I used to spend time in botanical gardens trying to identify native plants I would later encounter in the field. Landscapers do much the same for horticulture species and varieties.

Students get ideas for species they might like to grow at home. Whether botanical garden design gardens that suggest to visitors which plant group label together and make sense to plant owners are another in home gardens.



*Pooja*  
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**Environmental Projects**

**Sample of Environmental Projects 02**

Session - 2016-2017

**PROJECT ON** :->

Cause of Ozone Layer Depletion and Its Effects ON Human.

Y.D.V.D. Arts Commerce College  
Teosa

Name of student - Abhinav S. Patil  
Roll No. \_\_\_\_\_  
Class - BSC II<sup>nd</sup> Sem - III

11. Environment Studies

\* INDEX \*

Sr. No.	Title	Page	Remarks
1.	Introduction	3	
2.	Ozone Layer	4	
3.	Cause of ozone depletion	5	
4.	Effect of ozone depletion	7	
5.	Conclusion	11	
6.	Recommendation	12	



\* 1 Introduction \*

Many of human activities are badly affecting the atmosphere. Ozone depletion is one of these examples. Life is protected from UV rays by stratospheric ozone layer which acts as a shield sun screen. It approximately 90% ozone is present in stratosphere at the height of 10 to 30 kilometer and is called ozone layer while remaining 10% is present in troposphere.

① Reduce frequency of radiation (Green to stratos) or absorbed 99% to 99.9% by the ozone layer.

② Ozone layer is calculator just the oxygen (O<sub>2</sub>) but it has very hard colour. It is very rare as compared to oxygen. It is estimated that out of 10 million air molecules about 2 million are of O<sub>2</sub> and only 3 are of ozone.




  
  
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