

BC-207
ENVIRONMENTAL STUDIES (QUALIFYING PAPER)

Total Marks: 100
Time : 3 Hours

The Subject of Environmental Studies is included as a qualifying paper in all UG Courses (including professional courses also) from the session 2004-2005 and the students will be required to qualify the same otherwise the final result will not be declared and degree will not be awarded.

Annual System: The duration of the course will be 50 lectures. The examination will be conducted by the college at its own level earlier than the examination along with the Annual Examination.

Semester System: The Environment Course of 50 lectures will be conducted in the second semester and the examinations shall be conducted at the end of second semester:

Credit System: The core course will be awarded 4 credits.

Exam. Pattern: In case of awarding the marks, the question paper should carry 100 marks. The structure of the question paper being:

PART-A: Short Answer Pattern	25 Marks
PART-B: Essay type with inbuilt choice	50 Marks
PART-C: Field work	25 Marks

INSTRUCTIONS FOR THE EXAMINERS

Part-A: Questions 1 is compulsory and will contain ten short answer type question of 2.5 marks each covering the entire syllabus.

Part-B : Eight essay type questions (With inbuilt choice) will be set from the entire syllabus and the candidates will be required to answer any four of them. Each essay type question will be of 12.5 marks.

The examination will be conducted by the college concerned at its own level earlier than the annual examination and each student will be required to score minimum of 35% marks each in Theory and Practical. The marks obtained in this qualifying paper will not be including in determining the percentage of marks for the award of degree.

However, these will be shown in the detailed marks certificate of the student.

Syllabus and Course of reading

The multidisciplinary nature of environmental studies: Definition, Scope and importance need for public awareness. (2 Lectures)

Natural Resources: Renewable and non-renewable resources:

Natural resources and associated problems.

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

f) Land resources: Land as a resources, 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 Lectures)

Ecosystems

- Concept of an ecosystem
- Structure and function of an ecosystem.
- Producers, Consumers and decomposers.
- Energal flow in the ecosystem
- Ecological succession
- Food chains, food webs and ecological pyramids.
- Introduction, types, Characteristic features, structure and function *of* the following *of* the ecosystem.
 - a. Forest ecosystem
 - b. Grassm land ecosystem
 - c. desert ecosystem
 - d. Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries).

(6 lectures).

Biodiversity and its conservation

- Introduction-Definition: genetic, species and ecosystem diversity.
- Bio-geographical classification of India. "
- Value of bioversity: consumptive use, productive use, social, ethical; aesthetic and option values.
- Biodiversity at global, National and local levels.
- India as a mega-diversity nation.
Hot-sports of biodiversity.
- Threats to biodiversity: habitat loos, poaching *of* wildlife, man-wildlife conflicts. 1
- Endangered and endemics.
- Conservation *of* biodiversity: In-situ and Ex-situ, Conservation of biodiversity.

(8 Lectures)

Environmental Pollution

Definition

- Causes, effects and control measures *of* :-
 - a. Air pollution
 - b. Water pollution
 - c. Soil pollution
 - d. Marine pollution
 - e. Noise pollution
 - f. Thermal pollution
 - g. 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.
- Disaster Management: floods, earthquake, cyclone and landslides.

(8 lectures)

Social Issues and the environment

- From Unsustainable to Sustainable development.
- Ur ban 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.
- 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 lectures)

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 lectures)

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.
- (Field work Equal to 5 lecture. hours).

SIX MONTHS COMPULSORY CORE MODULE COURSE IN ENVIRONMENTAL STUDIES: FOR UNDERGRADUATES

Teaching Methodologies

The Core Module Syllabus for Environmental Studies includes class room teaching and Field Work. The syllabus divided into eight units covering 50 lectures. The first seven unit will cover 45 lectures which are class room based to enhance knowledge skills mid attitude to environment. Unit eight is based on field activities which will be covered in five lecture hours and would provide students' firsthand knowledge on various local would environmental aspects.

Field experience is one of the most effective learning to for environmental concerns. This moves out of the scope of text book mode of teaching into realm of real learning in the field where the teacher merely acts as a catalyst to interpret what student observes or discovers in his/her environment.

Fields are as essential as class work and form an irreplaceable synergistic tool in the entire learning process.

Course material provided by UGC for class room teaching and field activities be utilized.

The universities/Colleges can also draw upon expertise of outside resource persons for teaching purposes.

Environmental Core module shall be integrated into the teaching programmes of all undergraduate courses.

REFERENCES

- Agarwal, K.C. Environmental Biology, Nidi Publ. Ltd. Bikaner.
- Bharucha Erach, The Biodiversity of India, Mapin Publishing Pvt. Ltd., Ahmedabad
- Brunner R.C., Hazardous Waste Incineration, McGraw Hill Inc.
- Clerk R.S., Marine Pollution; Clanderson Press Oxford(1B).
- Cunningham, W.P. Cooper, T.H. Gorhani, E & Hepworth, M. T.
- Environmental Encyclopedia, Jaico Publishing House, Mumbai.
- De A.K., Environmental Chemistry, Wiley Esteem Ltd.
- Gleick, H.P. Water in crisis, Pacific Institute for Studies in Dev., Environment & Security. Stockholm Env. Institute.
- Hawkins R.E., Encyclopedia of Indian Natural History, Bombay Natural History Society, Bombay.
- Heywood, V.H. & Watson, R.T. Global Biodiversity Assessment. Cambridge Univ. Press.

- Jadhav, H & Dosale, V.M., Environmental Protection and Laws. Himalaya Pub. House, Delhi.
- Mhaskar A.K, Matter Hazardous, Techno-Science Publications(TB).
- Rao MN. & Datta, A.K., Waste Water treatment. Oxford & IBH Publ. Co. Pvt. Ltd.
- Townsend C., Harper J, and Michael Begon, Essentials Ecology, Blackwell Science(1B).
- Trivedi R.K and P.K Goel, Introduction to air pollution, Techno-Science Publications (TB).
- Trivedi R.K, Handbook of Environmental Laws, Rules, Guidelines Compliances and Standards, Vol I and II, Envirol Media(R).
- Wagner KD., Environmental Management. W.B. Saunders Co. Philadelphia, USA. (M) Magazine (R) Reference (TB) Textbook.



o/c

INDIRA GANDHI NATIONAL COLLEGE

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260334

LADWA (DHANORA), KURUKSHETRA-136132

(Affiliated to Kurukshetra University, Kurukshetra)

e-mail: igncollege@gmail.com

Website: igncollege.in

Ref. No. IGNCL/2019/471

Dated.. 01/05/2019

To

The Controller of Exam.
Kurukshetra University
Kurukshetra

Sub: Submission of EVS Examination Award List 2018-19.

Dear Sir,

Please find enclosed the following classes Environmental Examination during the session 2018-19.

B.A. 4 th Semester	<i>01/05/19</i>
B.A. 6 th Semester	<i>01/05/19</i>
B.Com. 4 th Semester	<i>01/05/19</i>
B.Sc. 4 th Semester	<i>01/05/19</i>
BCA 4 th Semester	<i>01/05/19</i>

Thanking you

Principal
Indira Gandhi National Coll
LADWA Distt. Kurukshetra
Principal

Notice Dated: 11-03-2019

Environmental Studies Practical Group Charts March, 2019 (Class B.A.I 2nd. Semester)

Date of Exam.	Group No.	University Roll No.	Time Of Exam.	Room No.	Teacher on duty
26-03-2019	I	180068178, 180068601-608, 610-641	1.00 PM to 2.30 PM	11	Dr. Ms. Rajni
27-03-2019	II	180068642, 644-658,659-665, 667-681, 683-685	1.00 PM to 2.30 PM	11	Dr. Ms. Rajni
27-03-2019	V	180068775,777, 779-780,783-798, 180068801-809, 811-817,819-822	1.00 PM to 2.30 PM	15	Ms Mandeep Kaur
28-03-2019	III	180068687-724, 726-727	1.00 PM to 2.30 PM	11	Dr. Ms. Rajni
28-03-2019	IV	180068728-734, 736-744,746-748, 750-751,753-761, 763-772,	1.00 PM to 2.30 PM	7	Dr. Krishan P
28-03-2019	VI	180068823-831, 833-838,842-843, 845-847,850-851, 853-854,886	1.00 PM to 2.30 PM	15	Ms Mandeep Kaur

Note: Students are advised to bring the project reports on the day of practical exam.

The concerned teachers are requested to conduct the practical exam as per instruction the syllabus. The exam materials will be provided to the examiners on the day of exam.

Notice Dated: 11-03-2019
 Environmental Studies Practical Group Charts March, 2019
 Class B.Com.I 2nd. Semester

Date of Exam.	Group No.	University Roll No.	Time Of Exam.	Room No.	Teacher on duty
26-03-2019	I	180021001-21040	1.00 PM to 2.30 PM	7	Dr. Krishan Ram
27-03-2019	II	180021041-21070, 180021426	1.00 PM to 2.30 PM	7	Dr. Krishan Ram

Class B.Sc.I 2nd. Semester

Date of Exam.	Group No.	University Roll No.	Time Of Exam.	Room No.	Teacher on duty
26-03-2019	I	180037701-716, 718-723,725-726, 728-731,733-737, 740-743,745- 746,748	1.00 PM to 2.30 PM	15	Ms Mandeep Kaur

Note: Students are advised to bring the project reports on the day of practical exam.

The concerned teachers are requested to conduct the practical exam as per instruction given in the syllabus.

The exam materials will be provided to the examiners on the day of exam.

Principal

In charge

INDIRA GANDHI NATIONAL COLLEGE

LADWA (Kurukshetra)

STUDENT'S ATTENDANCE CHART

Room No. 6 Date 1/4/2019 Session 2018-19
 Name of Teacher Dr. Neha Singh, Dr. Kuldeep Singh Class/Classes B.A. II
 Total No. of Students Allotted 40 Present 39 Absent 1
 Roll No. of Absentees 180068827

Roll No	Signature	Roll No	Signature
180068780	Kulwinder Singh	180068825	Pooja
180068783	Hersh	180068827	Asmita
180068786	Amit Kumar	180068829	Ritika
180068787	Urvu	180068830	Aman Kumar
180068788	Khus	180068831	Shivani
180068789	Sandeep Kumar	180068833	Mahak Sharma
180068790	Komal Rani	180068834	Rohit Kumar
180068791	Agar	180068836	Aman Varshika
180068792	Hazdeep Singh	180068837	Ruma Devi
180068793	Sandeep Kumar	180068842	Prince Kumar
180068794	Savita Devi	180068846	Suhana
180068795	Priyanka Rani	180068853	Geeta
180068796	Aur200	180037701	Amit
180068801	Neha	180037702	Jatin
180068803	Manisha	180037703	Parvati
180068807	Komal Devi	180037704	Sahil Aror
180068812	Ayush		
180068814	Susuma Rani		
180068815	Vinay		
180068817	Meehakshi		
180068819	Doonav		
180068822	DHANANTAY		
180068823	Simranjeet		
180068824	Sonia		

1/4/19 Signature

IGN COLLEGE , LADWA (Dhanora) Distt. Kurukshetra

NOTICE 25-03-2019

सभी विद्यार्थियों को सूचित किया जाता है कि B.A./B.Com./B.Sc./BCA – Ist/2nd/3rd year Environment Studies का पेपर जो कि 30.03.2019 को था वह पेपर अब 30.03.2019 की बजाए 01.04.2019 दिन सोमवार को सुबह 10.00 बजे से दोपहर 1.00 बजे तक लिया जाएगा।

HP
प्राचार्य

ced
परीक्षा नियंत्रक

		750-751,752-753, 763-772,			
28-03-2019	VI	180068823-831, 833-838,842-843, 845-847,850-851, 853-854,886	1.00 PM to 2.30 PM	15	Ms Mandeep Kaur

Note: Students are advised to bring the project reports on the day of practical exam.

The concerned teachers are requested to conduct the practical exam as per instruction given in the syllabus. The exam materials will be provided to the examiners on the day of exam.

INDIRA GANDHI NATIONAL COLLEGE

LADWA (Kurukshetra)

STUDENT'S ATTENDANCE CHART

Room No. 08 Date 1/05/2019 Session 2018-19
 Name of Teacher Dr. Amit Verma, Dr. Sudesh Bansal Class/Classes B. Com I
 Total No. of Students Allotted 31 Present 31 Absent zero

Roll No. of Absentees X

Roll No	Signature	Roll No	Signature
180021018 ✓	Monika	180021048 ✓	KUSH
180021019 ✓	Pooja Rani	180021049 ✓	Shashi Bala
180021020 ✓	Shivani	180021052 ✓	Vishal Kaur
180021021 ✓	Praty	180021053 ✓	Amun Kaur
180021022 ✓	Beena	180021054 ✓	Dinesh Kumar
180021023 ✓	Thekur Singh	180021039 ✓	Telwinder
180021024 ✓	Vikas	180021040	_____
180021025 ✓	Nargot Kaur	180021046 ✓	Sonam
180021027 ✓	Neelam Rani		
180021028 ✓	RAHAM DEEP KAUR		
180021029 ✓	Alisha		
180021030 ✓	Kanta		
180021032 ✓	Aditi		
180021033 ✓	Tushar shinde		
180021034 ✓	Saravjit Kaur		
180021035 ✓	Aman Ganga		
180021036 ✓	Komal Rani		
180021038 ✓	Aarti Rani		
180021040 ✓	Simran		
180021041 ✓	Gobinda		
180021042 ✓	Prince		
180021044 ✓	Kalpana		
180021045 ✓	Nancy		
180021047 ✓	Sonam Monika		

* At the end of the list (Roll No. 180021039)
 (Roll No. 180021046)

Signature of T
 Amit Verma

INDIRA GANDHI NATIONAL COLLEGE

LADWA (Kurukshetra)

STUDENT'S ATTENDANCE CHART

Room No. 9 Date 01-04-2019 Session 2018-19 BCA - को था बजे से
 Name of Teacher Dr. Neetu Priyanka Class/Classes B.A/B.A/B.Sc/B.Com
 Total No. of Students Allotted 36 Present 36 Absent 0
 Roll No. of Absentees 17009902, 17009903

Roll No	Signature	Roll No	Signature
180021056	Shubham Panchnil	16330763	Lovepreet Singh
180021057	Kajal	16331506	Sachin Dev
180021058	Shivani	16331525	Crudgas Sood
180021059	Sohil	16331625	Shivom Kaur
180021060	Smriti	16331811	Shivani
180021061	Aurender	16331828	Preet Kaur
180021062	Jain Mitt	16331536	Amrinder Singh
180021064	Dipika	170023835	Shweta
180021067	Priyanka	170023860	Manju
17009902	ABSENT	170023826	_____
17009903	ABSENT	170023826	Komal
170023817	MANU	180021065	Rahul Arora
170023866	Pranav	180021066	Ashish
170042902	Prince	170009902	Sonam
170042903	Anusha	170009903	Preeti Kaur
170042913	Soni		
170042916	Tarun Handhu		
170042923	Shubham Punia		
170042927	Aashna Devi		
170042935	Smriti Devi		
170074996	Madhu Rami		
170075029	Mansi		
170075048	Preeti		
170075098	Harvinder Singh		

class Priyanka

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LADWA (Kurukshetra)

STUDENT'S ATTENDANCE CHART

Room No. 07 Date 21.04.2019 Session 2018-19
 Name of Teacher Dr. Suman Sivrock Dr. Amit Vashilka Class/Classes B.Sc I yr
 Total No. of Students Allotted 40 Present 38 Absent 2

Roll No. of Absentees 180037709 180037725

Roll No	Signature	Roll No	Signature
✓ 180037705	Kushal	✓ 180037748	Safarwan
✓ 707	Anshu	✓ 180021001	Sahil
✓ 708	Ritu Devi	✓ 02	Mahak
✓ 709	(Absent)	✓ 03	Aguti
✓ 710	Parul	✓ 04	Kumar
✓ 713	Anju	✓ 06	Moulish Kumar
✓ 714	Anam	✓ 07	Ankit Kumar
✓ 715	Swati Devi	✓ 08	Aashish
✓ 716	Guljeet	✓ 09	Darshan Kumar
✓ 719	Mehak Chandhary	✓ 10	Sivanni Devi
✓ 720	Sameerita Devi	✓ 11	Aarati Devi
✓ 721	Manisha	✓ 12	Darsh
✓ 722	Aanchal	✓ 13	Alka Pari
✓ 723	Neha	✓ 14	Nisha
✓ 725	(Absent)	✓ 15	Hansdeep Kaur
✓ 726	Sowati	✓ 17	Pharti Devi
✓ 730	Harsh		
✓ 731	Sneha		
✓ 733	Muskan		
✓ 735	Prachi		
✓ 736	Raman Singh		
✓ 737	Sidd		
✓ 743	Sweety		
✓ 746	Digvijay Singh		

Suman Sivrock

Signature of

INDIRA GANDHI NATIONAL COLLEGE

LADWA (Kurukshetra)

STUDENT'S ATTENDANCE CHART

Form No. 04 Date 01 April 2019 Session morning
Name of Teacher Dr. Yashpal Singh Class/Classes.....
Total No. of Students Allotted 40 Present 40 Absent NIL
Roll No. of Absentees NIL

Roll No	Signature	Roll No	Signature
180068651	Kajal Devi	180068688	Anju Rani
652	Gulshan	689	Vishal
653	Rohit	690	Pankaj
654	Sahil	691	Rajesh Singh
655	Sourav Jeet Kaur	692	Amit
656	Sanju Singh	693	Santi
657	Nijeyata	694	Aashna saini
658	Kul Kum	695	Aarti Devi
659	Shivani	696	Akshay
661	Aarati Devi	697	Sahil
663	Sonia	698	Amjana
664	Jyoti Devi	180068702	Navneet
665	Pooja	703	Baby
667	Sakshi	704	Gurjeet kaur
668	Khushjeet Kaur	705	monika
669	Kapil	706	Pallavi
670	Aarti-DEU		
671	Ankit kumar		
673	Nikhil		
674	Sonia Rani		
675	Ananddeep Singh		
677	Hardeep Singh		
684	Vikas Kumar		
687	Neha		

[Signature]
Signature of T

NATIONAL COLLEGE LADWA (Kurukshetra)

STUDENT'S ATTENDANCE CHART

Form No. 05 Date 1-4-2019 Session 2018-19
 Name of Teacher Dr. Vandana Gupta, Dr. Neeru Bala Class/Classes BA Ist
 Total No. of Students Allotted 40 Present 40 Absent — Nil
 Roll No. of Absentees —

Roll No	Signature	Roll No	Signature
180068707	Sapna	180068737	Anita
180068708	Sonia	180068738	Shankytakher
180068710	Shivani	180068740	Komal Kumari
180068712	Mehar Singh	180068741	Jaipal Singh
180068713	Anjali	180068742	Kapil
180068715	Anjali	180068743	Ankit
180068716	Anshu Kumari	180068746	Ankush Kumar
180068717	Aarizoo	180068748	Mandeep Sharma
180068718	Sapna Devi	180068753	Mehachahal
180068719	Aarti	180068754	Rabina Devi
180068720	Breeti	180068756	Jasvinder Devi
180068722	Pooja Ravi	180068763	Jasraj Singh
180068723	Hemant	180068764	Sachin
180068724	Anjali	180068765	Vikas Kumar
180068726	Prince Kumar	180068771	Aarti Devi
180068727	Alexraj	180068772	Pratibha Goel
180068728	Rajni Devi		
180068729	Ankush		
180068730	Ritu		
180068731	Raji		
180068732	Sunny		
180068733	Mohit		
180068734	Satinder Kaur		
180068736	Ashwinder Kaur		

Vandana Gupta

Neeru Bala
Signature of Teacher

INDIRA GANDHI NATIONAL COLLEGE

LADWA (Kurukshetra)

STUDENT'S ATTENDANCE CHART

Roll No. 10
 Name of Teacher... Dr. Rajesh Kumar Date... 01-04-2019 Session... Morning
 Total No. of Students Allotted..... Class/Classes... B.A., B.Sc.,
 Roll No. of Absentees..... 11 Present..... 11 Absent... NIL

Roll No	Signature	Roll No	Signature
180068828	Robin		
180068766	Kuljeet Singh		
180068760	Jyoti Singh		
180068768	_____		
180068804	Ram Bhatti		
180068778	Kajal Sharma	180068778	
180037706	Pandeep Kumar		
180037734	Sachin Kumar		
180037740	Hazun		
170023862	Aashi		
0006331566	Rahul Saini		

Rajesh Kumar
 Signature of Teacher

Name of the Superintendent: DR. ARVIND GARG Date: 1/04/2019 Section: Morning

S. No.	Name of Lecturer	Room No.	A/Books issued	A/Books Returned	A/Books Consumed	Sig. of the Lecturer
1	<u>Prof. Priyanka</u>	<u>9</u>	<u>36</u>	<u>Nil</u>	<u>36</u>	<u>Priyanka</u>
2	<u>Dr. Rajesh Kumar</u>	<u>10</u>	<u>11</u>	<u>Nil</u>	<u>11</u>	<u>Rajesh</u>
3						
4						
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$$\begin{array}{r} 264 \\ 11 \\ \hline \text{Total} = 275 \end{array}$$
 Signature of the Supt. 1/4/2019

V