

**POST GRADUATE DIPLOMA  
IN ENVIRONMENT AND SUSTAINABLE  
DEVELOPMENT  
(PGDESD)**

**It is compulsory to submit the assignment before  
filling in the examination form.**

**(Valid from 1<sup>st</sup> January 2019 to 31<sup>st</sup> December, 2019)**

**Tutor Marked Assignments (TMA) for**

**MED-001**

**MED-002**

**MED-003**

**MED-004**



**School of Sciences  
Indira Gandhi National Open University  
Maidan Garhi, New Delhi-110068**

**(2019)**

Dear Student,

This booklet contains the assignments for MED-001, MED-002, MED-003 and MED-004. Each course has **one** assignment, which you need to complete and send us on the given address.

**There will be one assignment for each course. You have to complete the assignments in time.**

**Assignment Submission Deadlines are as follows:**

| Cycle   | Course                                   | Deadlines  |
|---------|--|--|
| January | MED-001 to MED-004<br>MED-005 to MED-008 | March 31 of the same year<br>September 30 of the same year |
| July    | MED-001 to MED-004<br>MED-005 to MED-008 | September 30 of the same year<br>March 31 of the next year |

**You will not be allowed to appear for the term-end examination for a course if you do not submit the assignment for each course within the deadlines given above. If you appear in the term-end examination of a course without submitting its assignment, the result of the term-end examination is liable to be cancelled/withheld. It is compulsory to submit the assignment before filling in the examination form.**

The assignments constitute the continuous component of the evaluation process and have 30% weightage in the final grading. You need to score 40% marks in assignments for each course in order to clear the continuous evaluation component.

#### **Instructions for Formatting Your Assignments**

1. You should specify clearly on the first page of all your assignment responses the course code, course title, assignment code, your enrolment number, name and address in the given format:

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ENROLMENT NO.:  
.....

NAME :  
.....

ADDRESS:  
.....  
.....

COURSE CODE: .....

COURSE TITLE: .....

ASSIGNMENT CODE: .....

STUDY CENTRE CODE: ..... DATE: .....

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PLEASE FOLLOW THE ABOVE FORMAT STRICTLY TO FACILITATE EVALUATION AND TO AVOID DELAY.

1. **The Assignment Response should be hand-written.** Use only A-4 or foolscap size writing paper (but not of very thin variety) for writing your answers.
2. Leave at least 4 cm margin on the left, top and bottom of your answer sheet for the evaluator's comments.
3. Your answers should be brief, precise and in your own words. **Please do not copy the answers from the study material.**
4. Serious action will be taken if you copy the Assignment Response from any other student.

5. While answering the questions, clearly indicate the question number along with the part being answered. Recheck your work before submitting it.

We recommend that you retain a copy of your assignment response to avoid any unforeseen situation.

**Send your completed assignments to: Coordinator of your Study Centre of the respective Regional Centre where you are enrolled**

Please write on the envelope “**Assignment Response of .....**” (Course Code).

**Wishing you all good luck!**

**TUTOR MARKED ASSIGNMENT**  
**MED-001: Understanding the Environment**

**Course Code: MED-001**  
**Assignment Code: MED-001/TMA/2019**  
**Maximum Marks: 100**

**Note:** \* **This assignment is based on the entire course.**  
\* **All questions are compulsory. Marks for the questions are shown within brackets on the right hand side.**  
\* **Please answer in your own words; do not copy from the course material.**

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- 1 What are biogeochemical cycles? Explaining the general features describe the Nitrogen or Phosphorous cycle using a neat diagram. (10)
- 2 List the various biomes along with their main characteristics. What are the factors that lead to their formation? What are the major threats to each of them? (10)
- 3 (i) In which units are the levels of the following expressed: Ambient temperature, dissolved oxygen, noise, concentration of carbon dioxide. (5×2=10)  
(ii) What are the impacts of eutrophication and oil spills on the environment?
- 4 (i) Based on the principal of Reduce, Reuse and Recycle – suggest a scheme for achieving ‘zero garbage generation’ in a city. (2½×4=10)  
(ii) Explain ‘natural global warming’ with the help of a proper diagram.  
(iii) Describe the parameters to ensure that water is fit for consumption.  
(iv) How is ozone generated in the atmosphere? Explain why O<sub>3</sub> is a protectant in the stratosphere and a pollutant in the trophosphere?
- 5 What are the four basic characteristics common to any ecosystem? In the context of a tropical forest ecosystem, explain each characteristic. (10)
- 6 Explain the difference between the following giving an example of each: (2×5=10)
  - (i) Chemical and physical weathering of rocks
  - (ii) Benthic and pelagic zone
  - (iii) Mutualism and Commensalism
  - (iv) Pyramid of biomass and Pyramid of energy
  - (v) Holozoic and saprophytic nutrition
- 7 (i) Differentiate between a food chain and a food web? Illustrate and describe the different types of food chains with examples. (5×2=10)  
(ii) Describe the relationship between the complexity of a food web and stability of an ecosystem.
- 8 (i) Explain Exponential growth. Discuss why is it important to limit our (10)

population?

(ii) Prepare an account on the structure of and the life in coral reefs

9 Explain land degradation? What are its major causes? Suggest two ways that you think are effective in managing the problem. (10)

10 Discuss any two of the following giving their causes, effects on human health as well as the ecosystem: (5×2=10)

- (i) Deep Ecology
  - (ii) El-Nino Phenomena
  - (iii) Carrying capacity
  - (iv) Biomedical waste
  - (v) Radiation pollution
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**TUTOR MARKED ASSIGNMENT**  
**MED-002: Sustainable Development: Issues and Challenges**

**Course Code: MED-002**  
**Assignment Code: MED-002/TMA/2019**  
**Maximum Marks: 100**

**Note:** \* **This assignment is based on the entire course.**  
\* **All questions are compulsory. Marks for the questions are shown within brackets on the right hand side.**  
\* **Please answer in your own words; do not copy from the course material.**

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1. Critically analyze strengths and weaknesses of various approaches to sustainable development. Explain major issues and challenges which confront sustainable development? (10)
2. Discuss the disadvantages of unsustainable development in industrialization? Describe methods to overcome them. (10)
3. Discuss by giving examples how gender disparity can hamper environment protection and sustainable development. (10)
4. How can sustainable use of natural resources help achieve sustainable development. (10)
5. Discuss various global issues related to environment. Assess the initiatives taken towards environmental protection to achieve sustainable development. (10)
6. Describe various indicators of inequality with suitable examples? (10)
7. Explain the following in about 250 words each: (5x4=20)
  - (a) Civil Society Initiatives on Sustainable Development
  - (b) Integration of Scientific and Traditional Knowledge for Sustainable Development
  - (c) Sustainable Agriculture Practices.
  - (d) Innovative Practices in Sustainable Development of Water and F Resources.
8. Explain the following in about 250 words each: (5x4=20)
  - (a) Cooperatives and Sustainable Development
  - (b) Sustained Economic Growth and Sustainable Development
  - (c) Initiatives of the South Asian Countries towards the betterment of the environment.
  - (d) Indicators of sustainable Activities

**TUTOR MARKED ASSIGNMENT  
MED-003: Energy and Environment**

**Course Code: MED-003  
Assignment Code: MED-003/TMA/2019  
Maximum Marks: 100**

**Note:** \* **This assignment is based on the entire course.**  
\* **All questions are compulsory. Marks for the questions are shown within brackets on the right hand side.**  
\* **Please answer in your own words; do not copy from the course material.**

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1. Discuss the role of energy in economic growth of a country. How do policy measures adopted by government affect energy used by a country? (10+10=20)
  2. What is energy planning? Discuss the broad aims and benefits of energy planning. (10+10=20)
  3. Explain the working of a bio gas plant. Discuss the advantages and limitations of biomass energy in the Indian context. (10+10=20)
  4. Analyse the measures that can be used to save energy in the commercial and industrial sectors in India. (10)
  5. Discuss the advantages and limitations of Clean Development Mechanism (CDM). (10)
  6. Write short notes on the following: (4x5=20)
    - a) Solar Energy
    - b) Carbon sequestration
    - c) Solar Photovoltaic Technology
    - d) Alternative Energy Supply
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**TUTOR MARKED ASSIGNMENT**  
**MED-004: Towards Participatory Management**

**Course Code: MED-004**  
**Assignment Code: MED-004/TMA/2019**  
**Maximum Marks: 100**

**Note:** \* **This assignment is based on the entire course.**  
\* **All questions are compulsory. Marks for the questions are shown within brackets on the right hand side.**  
\* **Please answer in your own words; do not copy from the course material.**

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1. Discuss the PRA as basic tools for participatory management and how are these tools used in the development of participatory projects ? Support your answer with a successful example of participatory management. (10)
2. What is good governance? List any six characteristics of good governance. How does participatory management model helps in good governance? (3+3+4=10)
3. Describe the organizational arrangement of SACEP and also give it aims, mission and functions. (2x5=10)
4. Discuss the role of women in environment and development. Describe a successful example of a women's movement in protecting the environment. (5+5=10)
5. Discuss the ways in which Freire's ideas can be used to youth in development work. (10)
6. Describe how the model "Reversals in Learning" help farmers in sustainable and equitable development. (10)
7. a) What are the different types of financial assistance received by SACEP? (5)  
b) What are the policy directives of the trends in policy in Joint Forest management? (5)
8. Discuss reversal and reality (in the context of PRA) at practical level on six standout – from closed to open, from individual to groups, from verbal to visual, from measuring to comparing, and from reserve and frustration to rapport and fun. (10)
9. Discuss how Orangi Pilot Project can help to build a model urban developed unit in our country. (10)
10. a) What are the drawbacks of social forestry? (5)  
b) What is the importance of wetland in our country and how it should be conserved? (5)