

Question Paper

Exam Date & Time: 10-May-2019 (09:30 AM - 11:30 AM)



MANIPAL ACADEMY OF HIGHER EDUCATION

BPharm Semester II- End Semester Examination May 2019

Exam Date: 10-05-2019

ENVIRONMENTAL SCIENCES [PMA-BP206T]

Marks: 50

Duration: 120 mins.

I Long Answers

Answer all the questions.

- 1) Discuss causes and effects of water pollution. Add a note on control measures to be taken to prevent water pollution. (10)
- 2) Explain renewable and nonrenewable resources with examples. Add note on afforestation and deforestation. (5+5=10 marks) (10)

II Short Answers

Answer all the questions.

- 1) Explain values of nature. (5)
- 2) Discuss in brief environmental ethics issues and possible solutions. (5)
- 3) Discuss in brief the impacts of wastes. (5)
- 4) Explain ecological niches with suitable examples. (5)
- 5) What are the different types of ecological studies? Explain with examples. (5)
- 5) Explain the structure and component of ecosystem. (5)

-----End-----

10/5/19



MANIPAL COLLEGE
OF PHARMACEUTICAL SCIENCES

MANIPAL

A constituent institution of Manipal University

BPharm Semester II- End Semester Examination May 2019

PMA-BP206 T: Environmental Sciences

Date: 10/05/2019

Duration: 09:30 am to 12:30 noon

Max. Marks: 50

SET NO.: 02

Instructions: Answer ALL questions.

I Long Answers		2 Q × 10 marks = 20 marks
Question	Evaluation by	
1 Discuss causes and effects of water pollution. Add a note on control measures to be taken to prevent water pollution.	DS	
2 Explain renewable and nonrenewable resources with examples. Add note on afforestation and deforestation. (5+5=10 marks)	Virendra L	
II Short Answers		6 Q × 5 marks = 30 marks
Question	Evaluation by	
1 Explain values of nature.	Virendra L	
2 Discuss in brief environmental ethics issues and possible solutions.	DS	
3 Discuss in brief the impacts of wastes.	DS	
4 Explain ecological niches with suitable examples.	BB	
5 What are the different types of ecological studies? Explain with examples.	BB	
6 Explain the structure and component of ecosystem.	BB	

PMA-BP 206T
Environmental Sciences

Sreedhar's Syllabus

1) Causes

Sewage

Refers to waste water that is discarded from households. Also referred to as sanitary sewage, such water contains a wide variety of dissolved and suspended impurities.

It is large by volume and contains impurities such as organic materials and plant nutrients that tend to rot.

The main organic materials are food and vegetable waste, plant nutrient come from chemical soaps, washing powders, etc.

Domestic sewage is also very likely to contain disease-causing microbes.

Industrial effluents

Waste water from manufacturing or chemical processes in industries

Industrial waste water usually contains specific and readily identifiable chemical compounds.

Mainly in the form of toxic wastes and organic pollutants.

Chromium, mercury, lead, copper, cadmium etc

Synthetic detergents

Washing clothes, cleaning utensils.

Surfactants and soaps to water

Oceans are polluted by oil on a daily basis from oil spills, routine shipping, run-offs and dumping.

Oil spills make up about 12% of the oil that enters the ocean. The rest come from shipping travel, drains and dumping.

Agrochemicals

Routine applications of fertilizers and pesticides for agriculture and uncontrolled run off in water bodies.

Adds Nitrogen and Phosphorus to water

Nitrate concentration is above the permissible level of 45 ppm in 11 states, covering 95 districts and Delhi.

Oil

Waste heat

Effects – Elaborate on below effects

Depletion of dissolved oxygen

Eutrophication

Pathogen....spreading diseases

Bio-magnification

Genetic deformities

Blue baby Syndrome
Minamata disease
Itai-Itai

Control Measures

The Water (Prevention and Control of Pollution) Act was enacted in 1974 to provide for the prevention and control of water pollution, and for the maintaining or restoring of wholesomeness of water in the country.

Treatment of water before leaving in water bodies.

Restoration of polluted water bodies.

Ganga Action Plan

River Water Monitoring

Short Answers

2) Environment Ethics Issues and Possible solutions

Environmental ethics deals with issues related to the rights of individuals that are fundamental to life and well being.

This concerns not only the needs of each person today, but also those who will come after us. It also deals with the rights of other living creatures that inhabit our earth.

Environmental ethics deals with issues that are related to how we utilise and distribute resources.

Can individuals justifiably use resources so differently that one individual uses resources many times more lavishly than other individuals who have barely enough to survive?

Environmental ethics are concerned with, who owns resources and how they are distributed. This can be looked upon at different levels.

At the global level it deals with the great North – South divide between the rich industrialized nations of North America and Europe, as against the needs of developing countries of the South such as in South and Southeast Asia and South America.

The common property of rural communities has increasingly been used to supply the needs of the urban sector.

Land itself that was once held as a common property resource of villages is being taken over by the urban and industrial sectors as it expands.

3) Impacts of Waste

Affects our health

Affects our socio-economic conditions

Affects our coastal and marine environment

Affects our climate

GHGs accumulation in Earth's atmosphere

Rising global temperatures.

Changing regional climates