

BACHELOR OF PHARMACY EXAMINATION -2018
(FIRST YEAR; SECOND SEMESTER)

ENVIRONMENTAL SCIENCES AND CONTROL

Time: Three Hours

Full Marks: 100

Answer **Question No. 1** and other **five** from the rest according to instruction
The figure in the right hand margin indicate marks

Q.No. 1

A. Answer the followings questions:- (any ten)

1x10=10

1. Write down the 3 major health effects caused by PM_{2.5}.
2. Mention the acceptable noise level (dB) in Education and Industrial sector.
3. Human day to day activity produce how many percentage of Methane (CH₄) and Fluorinated carbon.
4. How much sun energy are absorbed by clouds and reaches the earth surface?
5. Define Denitrification.
6. Write down the pH of Lemon juice and Baking soda.
7. Mention two infectious and two non-infectious hospital waste.
8. Define with one example Biodegradable and Non-biodegradable waste.
9. Write down the common water impurities present in Kolkata.
10. What is Thermal shock?
11. Mention two common ozone depleting substances present in the atmosphere.
12. Mention the average noise range (dB) and maximum noise level (dB) in Kolkata.

B. Write down the full form of the followings:- (any six)

1x6 =6

(a) NIPTS (b) BOD (c) HFC (d) CPCB (e) VOC (f) CHD (g) CFC (h) DDT

C. Answer the followings:- (any two)

2x2=4

1. What is carbon footprint?
2. What is Blue Baby Syndrome?
3. What is Chlorosis?
4. What is Universal Model of Ecological Pyramid?

Q.No.2: Write a short notes of the followings_ (any two)

5x2=10

(i) Plankton , (ii) Chipko Movement (iii) Mechanism of Acid rain

OR

(a) Environmental Impact Assessment (b) Colour code and type of containers used for disposal of Biomedical Waste (c) Bhopal Gas Disaster

P.T.O.

Q.No.3:

- (i) Classify particulate matter (PM).
- (ii) How can PM affects human and animal health?
- (ii) How can you control air pollution? – explain
- (iv) Mention the target organ systems affected by air pollution.
- (v) Which pollutant affect air quality?

3+6+5+3+3+20

OR

- (i) What is thermal pollution?
- (ii) Mention different sources of thermal pollution?
- (ii) Write down the major effects of thermal pollution.
- (iv) How you can prevent thermal pollution?
- (v)What do you mean by cooling towers?

2+3+7=6+2=20

Q.No.4:

- (i) What are Bio-medical waste?
- (ii) Write down the different hospital waste categories as per CPCB's regulation.
- (ii) Explain 4Rs of Management of solid waste.
- (iv) Mention the treatment procedure of Municipal Solid Waste (MSW).
- (v) What do you mean about Plasma gasification?

2+8+3+5+2=20

OR

- (i) What are the causes of water pollution in cities?
- (ii) Mention the substances, effects and treatment of Turbidity and Organic matter.
- (ii) Mention various health effects caused by water pollution. How can water pollution be prevented?
- (iv) What is eutrophication and its effects?

3+4+6+4+3=20

Q.No.5:

- (i) Explain briefly the Nitrogen Cycle with proper diagram.
- (ii) What are the three different types of ecological pyramids? – explain

5+4+6=15

OR

- (i) What is drug pollution or Pharmaceutical pollution?
- (ii) Explain environmental impact of pharmaceuticals and personal care products.
- (ii) Write down the top 10 pharmaceuticals (drugs) that are found in the aquatic environment.

2+9+4=15

P.T.O.

Q.No.6:

- (i) Write down the permissible sound levels as prescribed by CPCB. Mention auditory and non-auditory effects of noise.
- (ii) Draw a human ear and mention the different parts which are affected by noise.
- (ii) Mention the noise level of i) street traffic ii) printing press and iii) motor car horn.

3+6+4+2+15

OR

- (i) What is Ozone hole? What are the chemicals responsible for depletion of Ozone layer?
- (ii) What are the effects of acid rain and ozone layer depletion on the earth?
- (ii) How can we reduce the emission of harmful gases that deplete the Ozone layer?
- (iv) Which day is denoted as World Ozone Day?

2+2+7+3+1=15