

**BACHELOR OF ENGINEERING PHARMACY EXAMINATION, 2017**  
**(1st Year, 2nd Semester)**  
**Environmental Sciences and Control**

Time: Three hours

Full Marks: 100

Answer **q. no. 1** and **four** from the rest  
The figure in the right hand margin indicate marks

1. A. Answer the following questions (any nine) 1x9=9
1. Write down the name of two air pollution control devices.
  2. What is Nitrification?
  3. Write down the two common health effect caused by Acid rain.
  4. Mention two Occupational health hazards caused by water pollution.
  5. Mention one environmental and one health effect of cadmium.
  6. What is Nitrification?
  7. What is ozone depletion?
  8. Write down two primary and two secondary air pollutants present in Kolkata.
  9. Mention two controlling measures of thermal pollution.
  10. Define Global warming.
  11. Mention two controlling measures of Arsenic pollution.
- B. Choose the correct answer 1x6=6
- (i) Exposure of noise above 105 dB / 100 dB / 110 dB of 8 hr./day for several years causes NITPS.
  - (ii) Carbon cycle is a Chemical cycle / Mechanical cycle / Biogeochemical cycle.
  - (iii) Noise level of jet take off is 100dB / 122 dB / 120 dB.
  - (iv) 35% / 55% / 45% air pollution comes from transportation.
  - (v) Svente Oden is a soil scientist of Sweden / London / USA.
  - (vi) Bromofluorocarbon is commonly known as Xenon/Feron/Argon/Halon.
- C. Write the full form of the followings:- 1x5=5
- (a) TTS (b) COD (c) CFC (d) VOC (e) PAN
2. (i) What is secondary air pollutant?  
(ii) Write down the difference sources of noise in our community?  
(iii) Describe briefly the deleterious effects of noise on human health.  
(iv) Write your suggestion for the prevention of air pollution.  
(v) Name two common water impurities in Kolkata.

2+4+8+4+2

(Turn Over)

OR

- (i) What is Biogeochemical cycle?
- (ii) Illustrate and explain nitrogen cycle with proper diagram.
- (iii) Define eutrophication.
- (iv) Discuss the health effect of CO and CFC on plant and animals.

3. (i) What is 'acid rain'? 2+8+2+8  
(ii) How acidic is the 'acid rain'?  
(iii) Describe the effects of acid rain on plants and humans.  
(iv) Explain the mechanism of acid rain formation  
(v) What are halons and freons?

OR

- (i) Write down the difference between sound and noise.
- (ii) Discuss about different sources of air pollution.
- (iii) Describe the deleterious effects of cadmium (Cd) on human health.
- (iv) Draw a schematic diagram of sound level meter (SLM) and label its different parts.

2+4+6+6+2

4. (i) Discuss the source, effect and treatment of Lead (Pb) intoxication on plant and animals.  
(ii) Write a short note on surface water and ground water pollution.  
(iii) Explain with diagram Carbon cycle.

3+4+9+4

OR

- (i) What is Ozone hole?
- (ii) Write down the different chemicals in the atmosphere those are responsible for ozone depletion.
- (iii) Describe the effects of Ozone depletion both on human and animals.
- (iv) Write the impact of thermal pollution on aquatic environment.

8+6+6

5. Write short notes on (any five)

2+7+7+4

- (i) Chipko Movement 4x5+20
- (ii) Biomass
- (iii) Health effect of Arsenic (As)
- (iv) Denitrification
- (v) Environment protection act (EPA)
- (vi) Effect of air pollution in plants

OR

- (a) Kyoto Protocol
  - (b) Plankton
  - (c) Impact of water pollution
  - (d) Green house gases
  - (e) Indoor air pollutant
  - (f) Health effect of mercury (Hg)
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