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**B.Pharma**  
**15PH306**

**3<sup>rd</sup> Semester Regular/Back Examination 2017-18**

**Environmental Science**

**BRANCH: B.Pharma**

**Time: 3 Hours**

**Max Marks: 100**

**Q.CODE: B1175**

**Answer Question No.1 and 2 which are compulsory and any four from the rest.**

**The figures in the right hand margin indicate marks.**

**Q1 Answer the following questions: *multiple type or dash fill up type* (1 x 20)**

- a) Which of these is not a renewable energy source?  
a. Tidal energy                      b. Wind energy  
c. Nuclear energy                  d. Geo Thermal energy
- b) If the population of a species increases suddenly, it is called  
a. Population growth              b. Over population  
c. Population forecasting          d. Population explosion
- c) PAN is a secondary pollutant that  
a. Forms when hydrocarbon radical reacts with nitrogen dioxide  
b. Cause photochemical smog  
c. May cause respiratory diseases in human  
d. All of these
- d) The energy flow through the Ecosystem is  
a. Cyclic                                  b. Linear and one-way  
c. Both cyclic and linear              d. Linear and two-way
- e) Percentage of total water found as fresh water is  
a. 87.5%      b. 2.5%      c. 97.5%      d. 75%
- f) The water (Prevention and Control of Pollution) Act was enacted in  
a. 1974      b. 1986      c. 1966      d. 1990
- g) BOD stands for  
a. Biological Oxygen Demand      b. Basic Oxygen Demand  
c. Both (a) and (b)                      d. None of these
- h) Nitrate pollution causes  
a. Skin diseases  
b. Typhoid  
c. Blue baby diseases  
d. None of these
- i) The rate of biomass per unit area per unit time is known as  
a. Biomagnification  
b. Biomes  
c. Saprophytes  
d. Productivity
- j) OSDMA stands for \_\_\_\_\_  
a. Odisha State development management authority  
b. Odisha State disaster management authority  
c. Odisha Soil disaster management authority  
d. Odisha Surface disaster management authority
- k) BLUE BABY disease is caused by  
a. Sodium                                  b. Chlorides  
c. Fluorides                                  d. Nitrates

- l) Autecology is defined as
  - a. Study of single species
  - b. Study of communities
  - c. Study of physical environment
  - d. None of these.
- m) Automobile exhaust consist of
  - a. Hydrocarbon, carbon monoxide and nitric oxide
  - b. Lead vapours
  - c. Sulphur dioxide
  - d. Carbon dioxide
- n) Sunlight may be converted into electricity through
  - a. Galvanic cell
  - b. Carbon electrodes
  - c. Photo voltaic cell
  - d. Glass panel
- o) The equitable use of resource is necessary for
  - a. Sustainable development
  - b. Better life style for man
  - c. Sustain natural wealth
  - d. All of these
- p) Any material that can be transformed into more valuable and useful and useful product or service is called
  - a. Resource
  - b. Mineral
  - c. Element
  - d. Product
- q) Sundar lal bahugna is known for his association with
  - a. Kerala sastra sahitya parishad
  - b. Chipko movement
  - c. Samaj parivartan samudaya
  - d. Dasholi gram swarajya mandal
- r) Which of the following can be said to be the example of secondary succession
  - a. Pond      b. Farm      c. Desert      d. Forest
- s) Discharge of organic waste water into river will
  - a. Reduce dissolve oxygen
  - b. Reduce pH
  - c. Increase total dissolve solids
  - d. Toxic to humans
- t) Bhopal gas Tragedy was due to leakage of
  - a. Methyl isocyanate (MIC)
  - b. CO
  - c. Both
  - d. None of these

**Q2**

**Answer the following questions**

**(2 x 10)**

- a) What are the three classes of biodiversity according to Whittaker?
- b) How are air pollutants classified?
- c) What is an activated sludge process?
- d) What do you mean by thermal pollution?
- e) What are primary sedimentation tanks?
- f) what are natural resources? Give the classification on the basis of origin.
- g) Differentiate between Deforestation and desertification.
- h) What do you understand by ozone layer?
- i) What is full form of AIDS?
- j) Give the full form of: GPCB, GEC.

- Q3**
- Classify various sources of water pollution. Also write various measures to control water pollution. (5)
  - Write the aims and objectives of the “Orissa Environmental Society” (5)
  - Write short note on “KENDU LEAF TRADE” undertaken by the Orisha Government. (5)
- Q4**
- What do you understand by the term Biogeochemical cycles? Describe water cycle with the help of a neat sketch in detail. (5)
  - Explain the aim and objectives of Air (Prevention and control of pollution) Act 1981. (5)
  - What do you understand by environmental ethics and what are its objectives. (5)
- Q5**
- What are the sources of noise pollution. (5)
  - What are the effects of noise pollution. (5)
  - Arrange the following Day time and Night Time (5)

Category of Area		Day time (6 am – 9 pm)	Night time (9 am – 6 am)
Industrial Area		70	55
Commercial Area		55	40
Residential Area		50	75
Silence Zone (100 m around premises of hospitals, educational institutions etc)		45	65
d. Fill in the blank Source	Intensity ( $W/m^2$ )	Intensity level (dB)	# of times greater than TOH
Threshold of hearing			
Rustling leaves			
Whisper			
Normal conversation			
Large orchestra			
Vacuum cleaner			
Walkman at maximum level			
Military jet takeoff			
Threshold of pain			
Busy street conversation			
Instant perforation of eardrum			
Front row of row concert			

