



UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Eighth Semester – 2019

Paper: Water Pollution, its Management and Control

Course Code: BOT-411 Part – I (Compulsory)

Time: 15 Min. Marks: 10

Roll No. in Fig.

Roll No. in Words.

Signature of Supdt.:

ATTEMPT THIS PAPER ON THIS QUESTION SHEET ONLY.

Division of marks is given in front of each question.

This Paper will be collected back after expiry of time limit mentioned above.

Q.1. Encircle the correct option.

(10x1=10)

- Ovicide is type of
a) Pesticide b) Insecticide c) Herbicide d) Fungicide
- The eutrophication term should be applied only to
a) Autotrophic production b) Allotrophic production c) Dystrophy d) None
- Average raw sewage contains usually _____ solids.
a) 1 % b) 5 % c) 10 % d) 25 %
- DDT is an
a) Organochlorine b) Organophosphate c) Carbamate d) Pyrethroid
- The higher up the food chain, the more concentrated the pesticides become. This process is called
a) Bioaccumulation c) Biomagnification
b) Development of resistance d) None of the above
- 2,4-D is an
a) Organochlorine b) Organophosphate c) Carbamate d) Phenoxyacetic acid
- The pH value of rain is _____
a) 7.1 b) 6.6 c) 5.6 d) 5.00
- The most important source of P loading in water bodies is
a) Industrial sewage b) Erosion from banks of water bodies
c) Runoff of rain water d) All of the above
- Acid rain contains
a) Sulphuric acid b) Nitric acid
c) Both a and b d) Sulphuric acid, nitric acid and hydrochloric acid
- Ammonia from food processing waste is an example of
a) Organic water pollutant c) Inorganic water pollutant
b) Miscellaneous water pollutant d) Thermal water pollution
- Which of the following are not pesticides
a) Plant growth substances b) Pheromones c) Fertilizers d) Chemical attractants

P.T.O.

12. Heavy metals have a specific gravity of _____ times greater than that of water.
a) 2-3 b) 3-4 c) 4-5 d) 5-6
13. A pressure filter is used to clear water by removing
a) Turbidity b) Suspended matter c) Sand and gravel d) All of the above
14. The rate of eutrophication is usually higher in
a) Temperate waters b) Tropical waters c) Arid regions d) None of the above
15. The degradation of organic matter is also called _____ due to release of hydrogen and electrons.
a) Oxidation b) Reduction c) Dehydration d) All of the above
16. BOD is a measure of
a) Eutrophication b) Organic pollution c) Metal pollution d) Oil pollution
17. The first synthetic pesticide was
a) DDE b) DDD c) DDT d) 2,4-D
18. _____ pollution comes from multiple locations that are not easy to identify
a) Point source b) Effluent c) Watershed d) Non-point source
19. The main cause of anemia in human being is the metal
a) Mercury b) Cadmium c) Lead d) Arsenic
20. According to WHO, the soft water has 0 to _____ milligram per liter as CaCO_3 .
a) 30 b) 60 c) 90 d) 120



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Part – II

Time: 2 Hrs. 45 Min. Marks: 50

ATTEMPT THIS (SUBJECTIVE) ON THE SEPARATE ANSWER SHEET PROVIDED

Q.2. Give short answers of the following questions. (5X4=20)

- i. What are the factors other than nutrients affecting eutrophication?
- ii. Discuss the sources of nutrients causing eutrophication.
- iii. Name the parameters for the measurement of organic pollution.
- iv. Differentiate between bioaccumulation and biomagnification of heavy metals.
- v. Describe the beneficial uses of thermally polluted water.

Q.3. (a) Discuss in detail the preventive measures of eutrophication. (4)

(b) Briefly discuss Thermal pollution, its effects and control (6)

Q.4. (a) Define heavy metals and discuss toxic effects of Lead. (5)

(b) Briefly discuss the effects of organic pollution. (5)

Q.5. Write a note on any **TWO** of the following. (5+5)

(a) Chemical treatment of waste water

(b) Toxicity of Mercury

(c) Sources and properties of polluted water