



Seat No. \_\_\_\_\_

**HI-003-1014014**  
**B. Sc. (Sem.-IV) (WEF 2016)**  
**Examination**  
**April - 2023**  
**BT-401 : Environmental**  
**Biotechnology & Biostatistics**

**Faculty Code : 003**

**Subject Code : 1014014**

Time :  $2\frac{1}{2}$  Hours / Total Marks : 70

- 1 (a) Answer the question : (1 mark each) 4
- (1) Define aquatic Biome.
  - (2) Give example of parasitic interaction.
  - (3) Give example of desert in India.
  - (4) The hot spots of biodiversity conservation are characterized by high endemism and high threat of extinction. (True/False)
- (b) Answer the question : (any one out of two) 2
- (1) Explain boreal biome with example.
  - (2) Why it is important to protect forest ?
- (c) Answer the question : (any one out of two) 3
- (1) Describe tropical forest in detail.
  - (2) Write note on symbiotic relationship.
- (d) Answer the question : (any one out of two) 5
- (1) Describe Nitrogen cycle.
  - (2) Write a note on Biodiversity conservation.
- 2 (a) Answer the question : (1 mark each) 4
- (1) Define biomagnification.
  - (2) Full form of DDT.
  - (3) Give name of Xenobiotic compounds.
  - (4) Name common air pollutants.

- (b) Answer the question : (any one out of two) 2  
 (1) Why bacteria can be used for degradation of xenobiotics.  
 (2) Define Acid rain.
- (c) Answer the question : (any one out of two) 3  
 (1) Write note on biodegradation of DDT.  
 (2) Discuss in detail about measures to control air pollution.
- (d) Answer the question : (any one out of two) 5  
 (1) Discuss in detail about biomagnification.  
 (2) Write note on reactions of biodegradation of nitrobenzene.
- 3** (a) Answer the question : (1 mark each) 4  
 (1) What is significance of COD ?  
 (2) What is full form of BOD ?  
 (3) Write one application of biocomposting.  
 (4) Write example of biofertilizers.
- (b) Answer the question : (any one out of two) 2  
 (1) Enlist properties of waste paper.  
 (2) Write advantages of biofertilizer over fertilizer.
- (c) Answer the question : (any one out of two) 3  
 (1) Explain in detail methods to treat solid waste.  
 (2) Write note on biocontrol.
- (d) Answer the question : (any one out of two) 5  
 (1) Explain the various stages of waste water treatment.  
 (2) Enlist and explain types of Biofertilizers.
- 4** (a) Answer the question : (1 mark each) 4  
 (1) Data is also called \_\_\_\_\_  
 (2) Skewness is also called \_\_\_\_\_ distribution.  
 (3) Name types of mean.  
 (4) Midpoint of data is called \_\_\_\_\_.
- (b) Answer the question ; (any one out of two) 2  
 (1) Write merits and demerits of Range.  
 (2) Write note on Variable.
- (c) Answer the question : (any one out of two) 3  
 (1) What is difference between ungroup and group data ?  
 (2) Write in detail about mean and applications.

- (d) Answer the question : (any one out of two) **5**
- (1) What is Descriptive statistics ? Write in detail about measure of dispersion.
  - (2) Write note on frequency distribution.
- 5** (a) Answer the question : (1 mark each) **4**
- (1) \_\_\_\_\_ is parameter used in ANOVA.
  - (2) Define critical region.
  - (3) Father of biostatistics.
  - (4) Formula for degree of freedom.
- (b) Answer the question : (any one out of two) **2**
- (1) Write application of Chi square test.
  - (2) Write formula for correlation coefficient.
- (c) Answer the question : (any one out of two) **3**
- (1) Write steps on how to calculate regression equation.
  - (2) Write note on correlation coefficient.
- (d) Answer the question : (any one out of two) **5**
- (1) Write note on t tests.
  - (2) Write in detail about ANOVA.
-