

B.Sc. Semester - 4 (CBCS) Examination
March/April-2024 [NEW COURSE]
BioTechnology-BT401(Core)

Time: 2:30 Hours**Marks: 70****Instructions:**

1. All questions are compulsory.
2. Figures to the right indicate marks.

Que.1(A)	Answer the following. (Any one Out of Two)	(07)
	1. Factors affecting biodiversity. 2. Biodiversity conservation.	
Que.1(B)	Attempt any one. (Out of Two)	(04)
	1. Short note on: Deserts and Grasslands Biomes. 2. Discuss: Nitrogen cycle.	
Que.1(C)	Attempt any three. (Out of Five)	(03)
	1. Define: Ecosystem. 2. Write two name of nitrogen fixing microorganism. 3. Write the types of biodiversity. 4. Explain: Ecology. 5. What do you mean of biomes?	
Que.2(A)	Answer the following. (Any one Out of Two)	(07)
	1. Explain process of Bioremediation. 2. Discuss in detail: Conventional Air Pollutants.	
Que.2(B)	Attempt any one. (Out of Two)	(04)
	1. Biodegradation of DDT. 2. Describe in short: Biodegradation of Hydrocarbon.	
Que.2(C)	Attempt any three. (Out of Five)	(03)
	1. Define: Biodegradation. 2. Full form of DDT. 3. What is biomagnification? 4. Give the two example which responsible air pollution. 5. Citric acid is found in acid rain. (True/False)	
Que.3(A)	Answer the following. (Any one Out of Two)	(07)
	1. Physical, Chemical & Biological properties of waste-water. 2. Explain in detail: Bioleaching.	
Que.3(B)	Attempt any one. (Out of Two)	(04)
	1. Write the brief about treatment of solid wastes. 2. Short note on Biocontrol.	
Que.3(C)	Attempt any three. (Out of Five)	(03)
	1. Define: Polluted water. 2. Give the full form of COD 3. Write two name of microorganism act as biofertilizer. 4. Explain: Bioplastics. 5. What is composting?	
Que.4(A)	Answer the following. (Any one Out of Two)	(07)
	1. Brief note on: Coefficient of Variance and its merits, demerits. 2. Explain: Scope and applications of Biostatistics.	

- Que.4(B) Attempt any one. (Out of Two) (04)
1. Explain Mean, Mode and Median.
 2. Short note on Range and Variance.
- Que.4(C) Attempt any three. (Out of Five) (03)
1. Explain: Biostatistics
 2. What is Frequency distribution?
 3. Correlation coefficient is a number between _____.
 4. Find the mode in the given data set (11, 12, 12, 13,14).
 5. Mean is also known as average. (True/False)
- Que.5(A) Answer the following. (Any one Out of Two) (07)
1. Discuss: Student's t-test.
 2. Short note on: Chi square test.
- Que.5(B) Attempt any one. (Out of Two) (04)
1. Poisson distribution and their properties.
 2. Normal distribution and its properties.
- Que.5(C) Attempt any three. (Out of Five) (03)
1. Define: Probability.
 2. Full form of ANOVA.
 3. Chi square test is to test the population variance and sample variance. (True/False)
 4. Chi square test is zero when ____ frequency is equal to ____ frequency. (Expected, Observed)
 5. How much minimum number of replications need for ANOVA preparation?
