

12MBTC19- Environmental Biotechnology

PART- A

(10X ½ = 5)

Choose the Correct Answer

1. There are \_\_\_\_\_ types of bioremediation and all are used to remove toxic substances and contaminants from the environment whether they are rivers or crude oils.  
(A) three (B) two  
(C) four (D) six
2. Different methods of increasing the levels of shikonins in plant cells such as \_\_\_\_\_  
(A) elicitation (B) selection of cell lines  
(C) optimization of culture conditions (D) All the above
3. \_\_\_\_\_ pollution is often the cumulative effect of small amounts of contaminants gathered from a large area  
(A) NPS (B) Thermal (C) Air (D) Noise
4. The enormous distillery wastewater has potential to produce \_\_\_\_\_ cubic meters of biogas  
(A) 1000 million (B) 1100 million  
(C) 1420 million (D) 1200 million
5. In-situ conservation is \_\_\_\_\_ conservation  
(A) on-site (B) back side  
(C) off site (D) broad side
6. The majority of Earth's atmospheric nitrogen is found in  
(A) 68% (B) 76% (C) 78% (D) 65%
7. The term biological diversity was used first by wildlife scientist and conservationist \_\_\_\_\_ in 1968  
(A) Benjamin franklin (B) Koopers  
(C) Cookkers alberts (D) Raymond F. Dasmann
8. Water covers \_\_\_\_\_ of the Earth's surface  
(A) 86% (B) 88% (C) 71% (D) 82%
9. Write the expansion of ROCI.  
(A) random of outermost closed isobar (B) Regulator of outermost closed isobar  
(C) radius of outermost closed isobar (D) None of the above
10. What is USEL?  
(A) Under soil loss equation (B) Universal soil loss equation  
(C) Union soil loss equation (D) United soil loss equation

**PART- B**

**(5X 4 = 20)**

**Answer all the questions**

**Answer should not exceed 200 words or one page**

11. a). Write short note on biogeochemical cycles.  
(or)  
b). Describe the solid waste management.
12. a). Write a concept of single cell protein.  
(or)  
b). Give a note on chitin.
13. a). Describe the renewable energy sources of bio fuels.  
(or)  
b). Explain the non renewable energy sources of bio ethanol.
14. a). Illustrate about polyaromatic hydrocarbons.  
(or)  
b). Describe the concepts of phyto remediation.
15. a). Write short note on pre disaster stages.  
(or)  
b). Discuss the biological hazards.

**PART- C (5X 7 = 35)**

**Answer all the questions**

**Answer should not exceed 600 words or three pages**

16. a) Describe the soil pollution.  
(or)  
b). Enumerate the source of water pollution.
17. a). Write a detail note on plant biomass.  
(or)  
b). Describe the biomass feed stocks to fermentations.
18. a). Describe the microbial production of Xanthan gums.  
(or)  
b). Explain the microbial production of alcohols.
19. a). Elucidate the insitu and exsitu bioremediation.  
(or)  
b). Write an essay on biomining.
20. a). Give an account on earthquake.  
(or)  
b). Describe the soil erosion.

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