SEAT No.\_\_\_\_

No. of Printec/Pages: 02

[38]

## SARDAR PATEL UNIVERSITY

## Bsc. (VI<sup>th</sup> SEMESTER) Botany

## US06CBOT04- ENVIRONMENTAL BIOLOGY

Date: 02/04/2018

Day:Monday

Time: 10:00a.m to 1:00p.m.

Total Marks: 70

Note: \* All questions are to be attempted. \*Figures to the right indicate marks.

10 0.1 Choose the correct answer from the given options {10x1} 1) The Biogas is produced by a consortium of anaerobic bacteria that induces..... a) Methanogens b) Sulfur c) Heptachlor d) DDT 2) ----is used to recover & removal of metals from contaminated sites. a) Bio leaching b) Metal oxidation c) Microbial binding d) Chelation 3) Multiple microbial communities grow on solid surface to produce multilayered complexes called...... a) Biofilms b) Bioscrubbers c) Biofilters d) Biotrickling filter. 4) Eutrophication is caused due to....... a) Increase in the concentration of nutrients available b) Deficiency of oxygen c) Oil pollution d) Radioactive isotope. 5) Which of the following is not a green house gas. a) CFC b) Water vapors c) Oxygen d) Co2. 6) Atmosphere moisture in the form of invisible vapor is known as: a) Humidity b) Phytoextraction c) Precipitation d) Photoperiodism. 7) The most dangerous metal pollutant of auto mobile exhaust is. a) Silver b) Cadmium c) Lead d) Manganese. 8) Environmental biotechnology involves: a)The use of microbes to clean up the environment b) Bioremediation c) The study of benefits and hazards bassociated with GMMS d) All of these. 9) Environmental protection Agency is independent federal Agency of the U.S.Government established in...... a) 1970 b) 1980 c) 1960 d) 1990. 10) Biodiversity conservation was held in....... a) 1992 b) 1994 c) 1995 d) 1996.

Q. 2	Answer the following question (Any ten).	20
	1.Explain: Bioaugmentation.	
	2.Difference between in-situ and ex-situ bioremediation?	
	3.Define: Composting.	
	4. What is smog?	
	5. Define: Pollution.	
	6. What do you mean by non degradable pollutants?	
	7. State suspended particulate matter as aerial pollutants?	
	8. What is environmental protection act?	
	9. What do you mean by biological de-odorisation?	
	10. Who is involved with Biotechnology.	
	11. Explain: Goals of environmental education.	
	12. Write the full form of CPCB and IUCN.	
Q. 3	What is bioremediation? Discuss the need, scope and the environmental	10
	applications of bioremediation.	
	OR	
Q. 3	Write note on:	
	a) Reversal of global warming by microorganisms.	05
	b) Bio filters and Biodesulphurisation.	05
	by blo inters and biodesupitarisation.	
Q. 4	Give an account of sources, pollutants and effects of water pollution.	10
	Suggest suitable methods of its control of water pollutants.	
	OR	
Q. 4	Write note on:	
	a) Green house effect	05
	b) Ozone harmful effects	05
Q. 5	Discuss the causes and consequences of global warming and climate change.	10
Q. 5	OR	10
Q. 5	Write note on:	
ζ.υ	a) Application of biotecnology in Medicine.	05
	b) Application of biotecnology in Agriculture.	05
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Q. 6	Write note on:	
	a) Formal Environmental education.	05
	b) Non-Formal Environmental education.	05
	OR	
Q. 6	Write note on:	
	a) Environmental organizations.	05
	b) The objective and guiding principles of environmental education.	05