C. U. SHAH UNIVERSITY
Summer Examination-2022

Subject Name : Environmental Microbiology

Subject Code : 4SC04ENM1   **Branch: B.Sc. (Microbiology)**

Semester: 4   **Date: 04/05/2022**   **Time: 11:00 To 02:00**   **Marks: 70**

Instructions:
  (1) Use of Programmable calculator & any other electronic instrument is prohibited.
  (2) Instructions written on main answer book are strictly to be obeyed.
  (3) Draw neat diagrams and figures (if necessary) at right places.
  (4) Assume suitable data if needed.

Q-1	**Attempt the following questions:**	**(14)**
a)	Define :- Mutualism.	01
b)	What is Synergism . give examples?	01
c)	What are Halophiles?	01
d)	Define Humus.	01
e)	What is denitrification?	01
f)	Define COD.	01
g)	Enlist examples of Xenobiotics compounds.	01
h)	Give full form of MPN test.	01
i)	What is ammonification.	01
j)	Enlist types of Solid wastes.	01
k)	What is Oxidation Pond?	01
l)	Define biosurfactants.	01
m)	Enlist organisms involved in oil recovery.	01
n)	Name the Enzyme used in presence/absence test.	01

Attempt any four questions from Q-2 to Q-8

Q-2	**Attempt all questions**	**(14)**
a	Write a note on structure and function of ecosystem.	**07**
b	Write a note on aero microflora and dispersal of microbes	**07**

Q-3		**(14)**
	Define soil profile and explain different horizons with diagram.	

Q-4	**Attempt all questions**	**(14)**
a	Write a detail note on Bioluminescence.	**07**
b	Write a detail note on Sulphur cycle.	**07**

Q-5   **Attempt all questions**   **(14)**
  a   Write a detail note on phosphorous cycle.   **07**
  b   Write a detail note membrane filtration.   **07**

Q-6   **(14)**

Describe in detail about symbiotic association of rhizobium with leguminous plants.

Q-7   **Attempt all questions**   **(14)**
  a   What is Bioremediation? Explain briefly various types of Bioremediations.   **07**
  b   Write a short note on degradation of common pesticides.   **07**

Q-8   **Attempt all questions**   **(14)**
  a   Write about any two methods of solid waste management.   **07**
  b   Write in detail about Trickling filters.   **07**