

M.Sc. (Micro) Semester - 4 (CBCS) Examination
May/June-2021 (OLD COURSE)
EXTREMOPHILES(CORE)

Time: 1:30 Hours**Marks: 42****Instructions:**

1. Figures to the right indicate marks.
 2. There are five questions in the question paper.
 3. Answer any three of the following questions.
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Que-1 Answer the following (any seven out of ten, each of two marks) (14)

1. What is Bacteriorhodopsin?
2. Mention the ecological features of Archaea.
3. Enlist the application of thermozymes.
4. Describe the Taq polymerase.
5. Explain the mechanism osmolytes.
6. Mention the physiology of acidophiles.
7. Explain the cell wall properties of archaea.
8. Mention the importance of Chaperons.
9. Give any two examples of extreme eukaryote.
10. Define the habitat and survival characteristics of barophiles.

Que-2 Answer the following questions. (14)

- (A) What are halophiles? Briefly describe.
- (B) What are thermophiles? Briefly describe.

Que-3 Answer the following questions. (14)

- (A) Write a note on applications of thermozymes.
- (B) Describe distribution and diversity of psychrophiles.

Que-4 Answer the following questions. (14)

- (A) Write a note on salt in strategy adopted by halophiles.
- (B) What are methanogens and methanogenesis? Briefly discuss.

Que-5 Answer the following questions. (14)

- (A) Write a note on alkaliphiles.
- (B) Write a note on life under pressure.
