**Ministère de l’Enseignement Supérieur et de la Recherche Scientifique**

**Université Ibn Khaldoun - Tiaret -**

**Faculté des Sciences de la Nature et de la Vie**

**Département d’Ecologie et Environnement et Biotechnologie**

**Promotion : M1 Biotechnologie Microbienne**

**Module : Anglais**

**Date : 14/05/2025 Heure : 08h.30 à 10h.00 Lieu : Salle 6 FSNV-bis**

**Nom : Prénom : Groupe :**

**Section A - Reading Comprehension (4 points)**

**Read the five short passages below. For each one, decide which type of source it comes from:** 1) Research article 2) Newspaper article 3) Forum 4) Scientific magazine

|  |  |
| --- | --- |
| A) Scientists believe probiotic-rich diets may play a role in managing inflammation, especially in conditions like IBS, say researchers. While more studies are needed, early findings are encouraging for gut health advocates. **Newspaper article** | B) Hey friends! I’ve been working with yeast strains that are super sticky on Petri dishes. Has anyone figured out a way to reduce this? I’m trying to avoid scraping off the agar every time. Any advice would be great! **Forum** |
| C) Bacteria living in extreme environments, like hot springs and deep-sea vents, are now helping scientists develop more stable enzymes for industrial use. These so-called extremophiles offer a glimpse into how life adapts and thrive in conditions once thought uninhabitable. **Scientific magazine** | D) Following treatment with the fungal extract, a significant increase in hsp70 gene expression was observed using qPCR analysis (Rahman et al., 2020). This suggests that the extract may trigger a stress-related cellular response. **Research article** |

**Section B – Grammar: Past vs Present Perfect (5 points)**

**Choose the correct form of the verb.**

1. The researchers **identified** (identify) a new strain of E. coli during their 2022 study.
2. Many biotechnologists **have explored** (explore) enzyme production using fungi in recent years.
3. She **has not published** (not publish) the results of her experiment yet.
4. The students **collected** (collect) soil samples from three different regions last summer.
5. Our team **have not isolated** (not isolate) the pathogen responsible for the outbreak yet.

**Section C – Vocabulary (6 points)**

**Match the terms (1 to 6) to their correct definitions (a to e)**

|  |  |
| --- | --- |
| 1. Control group 🡺 **f**
 | * a) A person who oversees a student’s academic or research progress.
 |
| 1. Placebo **🡺 c**
 | * b) A microbial community attached to a surface, protected by a matrix.
 |
| 1. Supervisor **🡺 a**
 | * c) A substance with no therapeutic effect, used in clinical trials.
 |
| 1. Bioremediation **🡺 e**
 | * d) A student pursuing studies beyond a bachelor’s degree.
 |
| 1. Postgraduate **🡺 d**
 | * e) The use of microbes to clean up environmental pollutants.
 |
| 1. Biofilm **🡺 b**
 | * f) A group used as a baseline in scientific experiments.
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**Section D - (5 points)**

**Fill in the blanks with the correct word from the list:**

**however, the aim, enhance, therefore, in addition**.

Microbial biotechnology is widely used to produce valuable compounds. **(1) The aim** of genetic engineering in this field is to create microbes that synthesize medicines, such as insulin. Scientists modify bacterial strains to **(2)** **enhance** their production efficiency. **(3) In addition**, some bacteria are engineered to produce biofuels as a sustainable energy source. **(4) However**, scaling up these processes can be difficult. Industrial conditions may stress the microbes, reducing yields. **Therefore (5)**, researchers are optimizing fermentation techniques to improve performance. These advances could make bio-based manufacturing more cost-effective.