

2024 Bi H1 Q16

Section: Metabolism and Survival

Topic: Environmental Control of Metabolism

Question Summary:

The question asks which statement about culturing micro-organisms is not correct.

Worked Solution:

- Micro-organisms require a source of energy and raw materials for biosynthesis.
- Some micro-organisms (e.g. photosynthetic bacteria and algae) can use light as an energy source.
- Others use chemical substrates such as glucose.
- Therefore, it is incorrect to say that all micro-organisms require a chemical substrate as an energy source.

Final Answer: **B** (All micro-organisms require a chemical substrate as an energy source).

Revision Tips:

- Autotrophs: use light (photoautotrophs) or chemical reactions (chemoautotrophs) as energy sources.
- Heterotrophs: rely on organic substrates for energy.
- Growth media must supply suitable energy source and raw materials for biosynthesis.