

2024 Bi H1 Q22

Section: Sustainability and Interdependence

Topic: Parasitism

Question Summary:

Adult tapeworms live in the intestines of foxes, release eggs that infect rabbits via grass, and complete their lifecycle when foxes eat infected rabbits. The question asks which row correctly identifies the roles of the organisms in this cycle.

Worked Solution:

- The fox hosts the adult tapeworm, so it is the definitive (primary) host.
- The tapeworm egg is a resistant stage that survives in the environment until ingested by the next host.
- The rabbit hosts the larval form of the tapeworm, making it the intermediate host.

Therefore, the correct identification is: Fox = host, Tapeworm egg = resistant stage, Rabbit = intermediate host.

Final Answer: **A** (Fox = host, Tapeworm egg = resistant stage, Rabbit = intermediate host).

Revision Tips:

- The definitive host is where the adult parasite reproduces sexually.
- Intermediate hosts carry the larval stages.

- Resistant stages survive outside hosts between infections (e.g., eggs, cysts).