

**BOWEN UNIVERSITY, IWO**  
**COLLEGE OF AGRICULTURE, ENGINEERING AND SCIENCE**  
**2022/2023 FIRST SEMESTER EXAMINATION**  
**BLY 405: BIOENTREPRENEURSHIP**

Answer **THREE** questions only: Section A, and any **TWO** from Section B.

*Time allowed: 2 hours*

**SECTION A**

1. (a) Give a concise account of any **four** qualities of bioentrepreneurs. (10 marks)
- (b) (i) Discuss **two** importance and **three** applications of molecular diagnostics (5 marks)
- (ii) Mention **five** types of equipment required in a molecular laboratory and their uses. (5 marks)

**SECTION B**

2. Write short notes on the following:
- (a) Bio-discovery (5 marks)
- (b) Bio-innovation (5 marks)
- (c) Patent (5 marks)
- (d) Bioenterprise industries (5 marks)
3. (a) Enumerate precautionary measures to be adopted for the following procedures:
- (i) Mushroom tissue culture (5 marks)
- (ii) Spawn production (5 marks)
- (b) Discuss the advantages of mushroom cultivation (10 marks)
4. (a) Give an account of any **five** steps required for the establishment of diagnostic laboratories. (10 marks)
- (b) Briefly discuss any **five** consultancy services required by Bioenterprise companies. (5 marks)
- (c) Describe **five** main steps in the production of beverages from fruits. (5 marks)
5. (a) In designing a molecular (Polymerase Chain Reaction) laboratory, describe in detail **three** important approaches that must be established to control contamination. (12 marks)
- (b) As part of the quality control plan in a molecular laboratory, briefly discuss **four** controls that can be explored in PCR reactions. (8 marks)