2.4 Biomes, Zonation & Succession

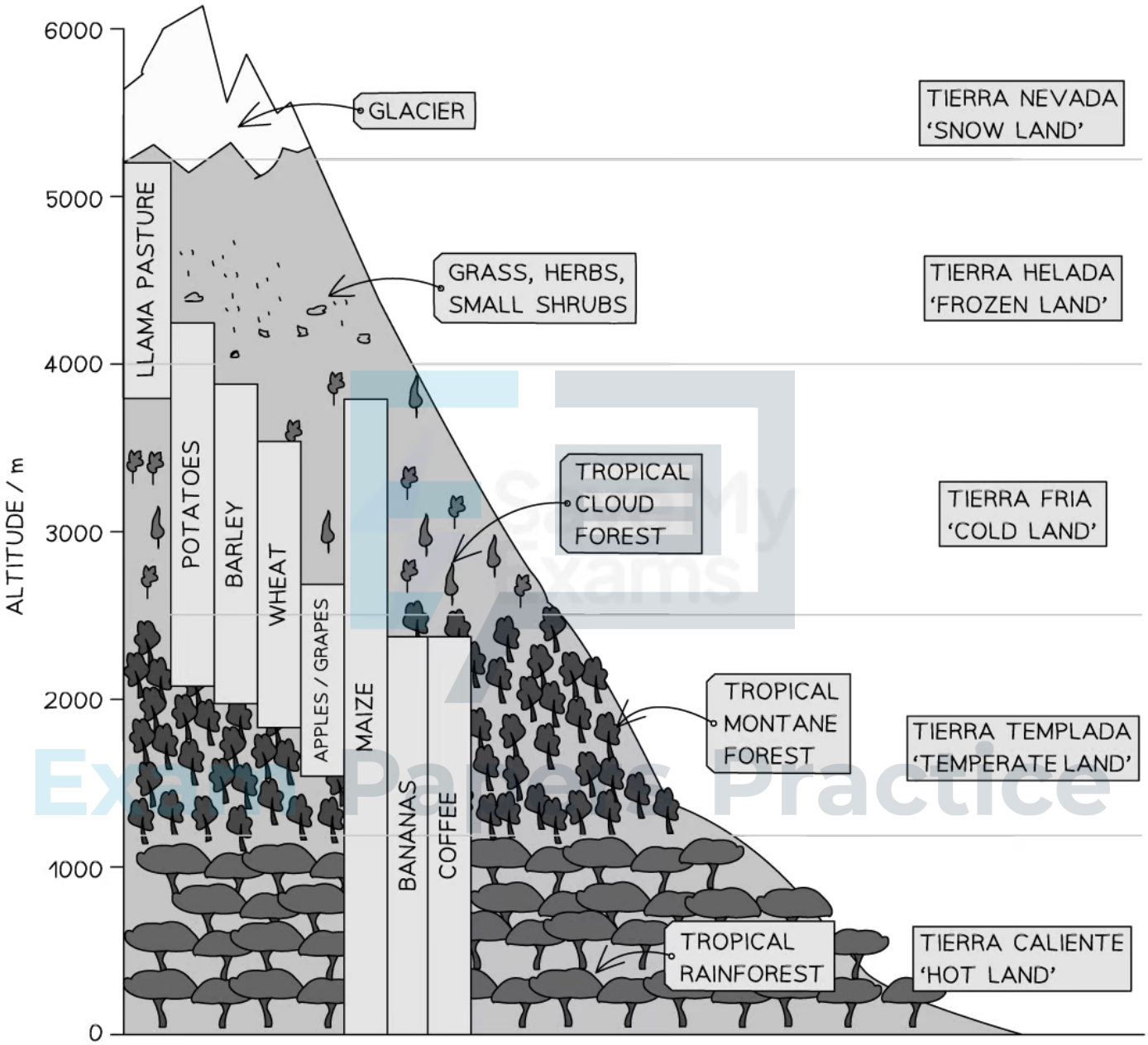
Question Paper

Course	SL IB Environmental Systems & Societies (ESS)
Section	2. Ecosystems & Ecology
Topic	2.4 Biomes, Zonation & Succession
Difficulty	Medium

To be used by all students preparing for
SL IB Environmental Systems & Societies (ESS)
Students of other boards may also find this useful

Question 1a

The figure below shows how the dominant vegetation and crop production changes with altitude in the Andes mountain range in South America.



i)

The changes in dominant vegetation shows a distinct pattern.

State the ecological term used to describe this pattern.

[1]

ii)

Outline how global warming might affect the pattern of natural vegetation shown above.

[1]

[2 marks]

Question 1b

Using the figure in part (a), discuss how rising temperatures caused by global warming may affect the food production systems of Andean communities living at an altitude of around 2 500 m.

[3 marks]

Question 2a

Distinguish between the following two biomes: tundra and tropical rainforest.

[3 marks]

Question 2b

Explain how the atmospheric system influences the distribution of biomes.

[4 marks]

Question 3a

Outline how species diversity increases towards the later stages of succession.

[3 marks]

Question 3b

Describe the processes involved in the formation of fertile soils from bare rock.

[4 marks]

Question 4a

Complete the table below by writing either 'low' or 'high' in each of the empty boxes.

Feature	r-strategist species	K-strategist species
Reproductive rate		
Growth rate		
Investment in offspring (parental care)		
Survival rate		
Level of specialisation		

[5 marks]

Question 4b

Discuss the factors contributing to the low resilience of coniferous forest monocultures.

[3 marks]