

EGT2
ENGINEERING TRIPOS PART IIA

Thursday 2 May 2024 2 to 3.40

Module 3E11

ENVIRONMENTAL SUSTAINABILITY AND BUSINESS

*Answer not more than **two** questions.*

All questions carry the same number of marks.

*The **approximate** percentage of marks allocated to each part of a question is indicated in the right margin.*

*Write your candidate number **not** your name on the cover sheet.*

STATIONERY REQUIREMENTS

Single-sided script paper

SPECIAL REQUIREMENTS TO BE SUPPLIED FOR THIS EXAM

None

10 minutes reading time is allowed for this paper at the start of the exam.

You may not start to read the questions printed on the subsequent pages of this question paper until instructed to do so.

You may not remove any stationery from the Examination Room.

1 In environmental policy and business, the Planetary Boundaries (PB) concept has become a widely accepted way of thinking about how businesses are embedded in ecological systems and what this means for their operation. PB has also become a standard approach for goal setting in environmental management.

(a) Define and describe the concept of Planetary Boundaries. Sketch how the concept has been further developed over time. [30%]

(b) Explain how the concept (PB) can be used by businesses to guide their environmental management strategy. [30%]

(c) Building on (b): Sketch how businesses in the automotive industry can use PB in their Environmental, Social, and Governance (ESG) strategy. [40%]

2 Within the Environmental, Social, and Governance (ESG) debate, businesses have increasingly been criticized for deliberately employing deceiving practices such as Greenwashing, Whitewashing, and Rhetorical Framing, undermining public trust in markets and deceiving customers and investors.

(a) Define and describe the three concepts (Greenwashing, Whitewashing, and Rhetorical Framing). Give one example for each. Do you expect these practices to increase or decrease in the next five years? [40%]

(b) Name and explain recent regulatory steps to limit companies employing these practices (EU, USA, or other countries if applicable). [30%]

(c) Name additional options (beyond regulation) for consumers, citizens, investors and responsible managers to stand up against these deceiving practices. [30%]

3 Carbon offsetting is a climate mitigation strategy that nation-states and businesses employ to become "carbon neutral" on the balance sheet.

(a) Define and explain Carbon offsetting strategies. What are the opportunities and what are the risks of adopting these strategies? What are the prerequisites for Carbon offsetting to be effective and trustworthy? [40%]

(b) Besides offsetting and technological approaches, businesses and policymakers apply so-called "behavioural instruments" to mitigate carbon emissions. One of them is "green defaults". Define and explain behavioural instruments in general and green defaults in specific. [30%]

(c) Sketch one (real or hypothetical) example of a behavioural instrument (such as defaults or other nudges) employed in an industry of your choice. [30%]

END OF PAPER