Version LR/6

EGT2
ENGINEERING TRIPOS PART IIA

Thursday 8 May 2025 14.00 to 15.40

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 Until 2023 it seemed that environmental policies and business practices were increasing worldwide. However, in 2024, particularly in some regions of the world, there has been a backlash against climate and other environmental policies, a movement the Financial Times coined "*Greenlash*".

(a) Define and describe the concept of "*Greenlash*". How can this phenomenon be explained? How does it differ from "*Greenwashing*", "*Greenlighting*" and "*Greenhushing*"? [30%]

(b) As CSO (Chief Sustainability Officer) of a large corporation, you argue against your company following the *"Greenlash"* trend (as discussed in (a)). You want to show the Board and investors that sustainable business conduct matters for long-term profitability. Which *concepts or frameworks* used in sustainability management and politics (as discussed in class 3E11) would you use in your pitch to the Board members? Remember that your goal is to both stick to the current ambitious sustainability goals and avoid the company being subject to "*Greenlash".* Name and define three concepts. What do these concepts show? [40%]

(c) What are the advantages and the disadvantages of using "*carbon footprints*" to measure and compare the climate impact of activities of businesses, countries, and individuals? Discuss. [30%]

2 In the past decade, Environmental, Social, and Governance (ESG) has developed into a standard approach to sustainable management practice, particularly in Europe and the US.

(a) Define the *ESG strategy* approach. Give one example for each pillar (E, S, G). Explain why and how it can positively impact businesses (for each example). [30%]

(b) Does ESG really matter for a company's financial success? Share the key arguments of the supporters and critiques of a business case for an ESG strategy. [40%]

(c) How can *Circular Economy* thinking be part of a company’s ESG strategy? Describe three examples. [30%]

3 Sustainable Engineering aims to design and operate products, infrastructure, and processes that support (rather than harm) planetary boundaries.

(a) Discuss one example of Sustainable Engineering for each of the following: products, infrastructure, and processes. [30%]

(b) The pervasive *digitalisation* of society and businesses poses opportunities and risks for sustainable development. Discuss how and when digitisation goes hand in hand with sustainable engineering practices and when it does not. [40%]

(c) Building on (b), discuss the role of *Artificial Intelligence* in this debate. [30%]

END OF PAPER