

4. Engineering Impacts Past Paper Problems

1. Describe two positive social impacts of a city bypass. 2019 Q5b
2

2. Hydropower is a source of energy which is used to generate electricity. Q7.



Describe one positive and one negative environmental impact of using hydropower as a source of energy. 2

3. The interactive speaker used in a 'smart home' can be considered to be an established technology. An **emerging technology** is one that is new and still to be tried commercially within a product or system. 2019 Q8c
- a) Explain a possible impact of an emerging technology which you are familiar with. 2

4. A mechanical harvester used to pick fruit on a farm is shown. 2019 Q14a



Describe two economic impacts of the mechanical harvester. 2

5. Electric cars have been developed as an alternative to fossil fuel powered vehicles. 2018 Q16
a&d



- a)
- i. Describe one positive environmental impact of using an electric car. 1
 - ii. Describe one negative economic impact of the increasing use of electric cars. 1

Electric vehicles are now considered to be an established technology. An emerging technology is one that has still to be tried commercially within a product or system.

- b) Explain the possible impact of an **emerging technology** that you are familiar with. 2

2017 Q10

6. A boiling water tap and heating tank is shown below. It is installed in a busy office kitchen, where 200 staff can make hot drinks throughout the day. Boiling water taps are often installed in offices as an alternative to kettles. Describe a positive and negative economic impact of installing and using a boiling water tap. 2016 Q13c

7. Explain the environmental impact during the construction of the gondola system. 2

2015 Q10

A wind farm is shown below.



- a)
- i. Describe one positive environmental impact of a wind farm. 1
 - ii. Describe one negative environmental impact of a wind farm. 1
 - iii. Explain an economic impact of using a wind farm to produce electricity. 2