

## Engineering Level 2

## ENG2U1/PM

### Preparation Sheet for the 2011 January Examination

#### Instructions

- This Preparation Sheet will be given to you on or after 1 October 2010. The context for **some** of the examination questions is given.
- Between 1 October and the examination date you will have the opportunity to research the context with the guidance of your teacher.
- This Preparation Sheet may be taken into the examination room. Do not annotate or write on this sheet. No other material should be taken into the examination room.

An essential requirement of this unit is that you will form into a team and divide the work fairly between yourselves. Each member will then report their findings back to the rest of the team who will record the relevant information. Team members should make a note of the role(s) they each played and the essential features of how a successful team should function.

Turn over ►

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**Research context:** Transport Infrastructure and Vehicle Systems

**Theme:** Canal Transport

During the 19th century Britain built an extensive network of canals to carry heavy goods, but with the development of road and rail transport many of these canals became neglected and overgrown. Recently, however, there has been a revival in the use of canals for recreational purposes which has led to huge investments in clearing and opening up Britain's waterways. One such project was the Falkirk Wheel.

- 1 You are to conduct your research into developments in the operation and function of canal systems over the past 20 years, including the Falkirk Wheel.
  - investigate the "traditional" system of *Locks* in the canal system
  - familiarise yourselves with the operation of the Falkirk Wheel
  - investigate the contribution to social and economic development
- 2 Research both recreational and commercial uses of the canal system:
  - renewed interest in switching freight from roads to canals
  - leisure activities associated with the canal system.
- 3 Investigate social and environmental issues:
  - employment opportunities related to the canal transport system
  - interaction with the environment.

Suggested websites (correct at time of going to press):

<http://www.falkirkwheel.info/htm/tech1.htm>

<http://thefalkirkwheel.co.uk>

<http://pigpen.org.uk/locks.htm>