



**0173-501 MARCH 2018**

**Level 3 Technicals in Land and Wildlife Management**

**Level 3 Land and Wildlife Management – Theory Exam (1)**

If provided, stick your candidate barcode label here.

**Thursday 15 March 2018  
09:30 – 11:30**

Candidate name (first, last)

First

Last

Candidate enrolment number

Date of birth (DDMMYYYY)

Gender (M/F)

Assessment date (DDMMYYYY)

Centre number

Candidate signature and declaration\*

• If any additional answer sheets are used, enter the additional number of pages in this box.

• Please ensure that you **staple** additional answer sheets to the **back** of this answer booklet, clearly labelling them with your full name, enrolment number, centre number and qualification number in BLOCK CAPITALS.

• All candidates need to use a **black/blue pen**. **Do not** use a pencil or gel pen.

• If provided with source documents, these documents **will not** be returned to City & Guilds, and will be shredded. **Do not** write on the source documents.

**\*I declare that I had no prior knowledge of the questions in this assessment and that I will not divulge to any person any information about the questions.**

**You should have the following for this examination**

- a pen with blue or black ink
- calculator

**General instructions**

- Use black or blue ball-point pen.
- The marks for questions are shown in brackets.
- This examination contains 13 questions. Answer **all** questions.
- Answer the questions in the spaces provided. Answers written in margins or on blank pages will **not** be marked.
- Cross through any work you do not want to be marked.



1 Figure 1 is of a two-stroke engine.



Source: <http://www.petrolscooter.co.uk/>

**Figure 1**

a) Identify the part labelled A. (1 mark)

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b) Give a common fault associated with the part labelled A. (1 mark)

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2 The Control of Noise at Work Regulations 2005 specifies the exposure action values. Compare daily/weekly exposure and peak sound pressure. (4 marks)

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3 a) Define the term 'population'. (2 marks)

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b) The population of a bird species in an area consists of 30 pairs in Spring and the average brood size in Summer is 2.3 young. Calculate the total population in Autumn, assuming no losses. You must show your working. (3 marks)

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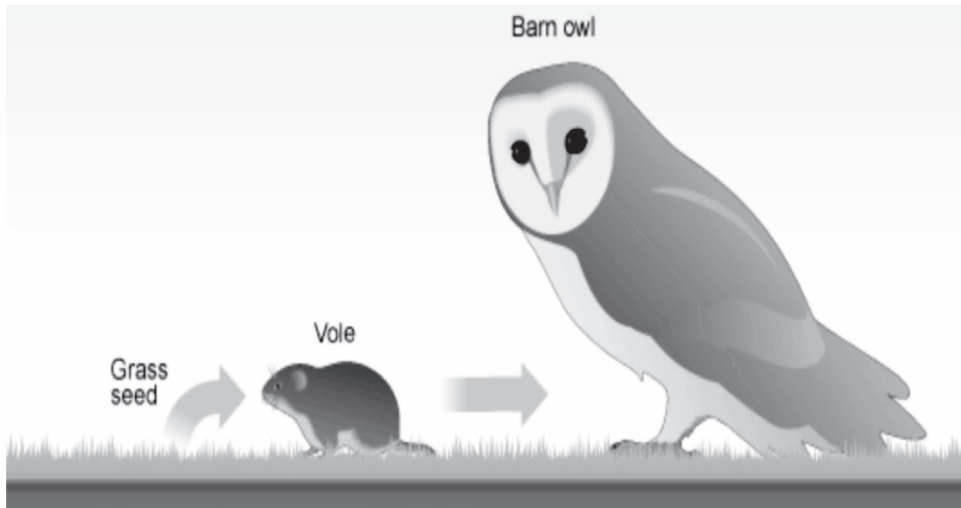
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Source: <http://www.bbc.co.uk/schools/gcsebitesize/science/>

**Figure 2**

- 4 With reference to Figure 2,
- a) state the original source of energy for this food chain (1 mark)
  - b) give the trophic position of the grass in this food chain (1 mark)
  - c) explain, with reference to the laws of thermo-dynamics, why a large biomass of grass is required to support a smaller biomass of Voles. (3 marks)

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6 The chicks of ground nesting birds tend to be covered in down and more active on hatching.  
Describe what this means in terms of a life strategy with reference to r and K characteristics.

(3 marks)

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7 a) Name **two** bird species that have been the subject of a reintroduction project in the UK.

(2 marks)

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b) For **one** of the bird species named in a) above, explain **two** reasons why the population had declined making reintroduction necessary.

(4 marks)

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8 When undertaking estate maintenance tasks, using the correct PPE, tools and equipment is very important.  
a) State **one** correct piece of equipment to use when connecting barbed wire to a wooden post. (1 mark)

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b) Name **one** piece of PPE that should be worn whilst using a flat plate vibrator. (1 mark)

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c) A metric screw size is given as 5.0 x 10. State what the 10 refers to. (1 mark)

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9 a) Calculate the amount of material, in m<sup>3</sup>, that is required to construct a surface that is 10 m x 3 m and 10 cm deep. You must show your working. (2 marks)

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b) When selecting materials to construct a board walk, describe the factors that need to be considered. (4 marks)

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10 When undertaking a habitat management practical to clear a site of woody vegetation, describe the options available for the disposal of the cut material. (3 marks)

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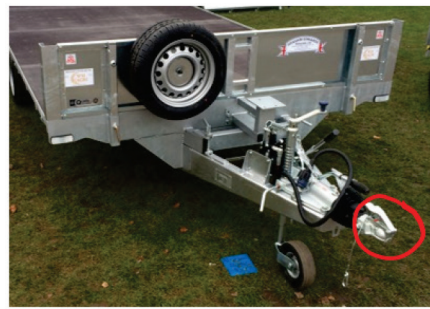
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11 Identify the parts circled in Figures 4 and 5 below. (2 marks)



Source: <http://www.gmstephenson.co.uk/>

**Figure 4**



Source: <https://edwards-trailers.co.uk>

**Figure 5**

12 Describe what operating **and** working principles need to be considered when choosing a new all-terrain vehicle. (4 marks)

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