



**0173-501 JUNE 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.

**Monday 11 June 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**

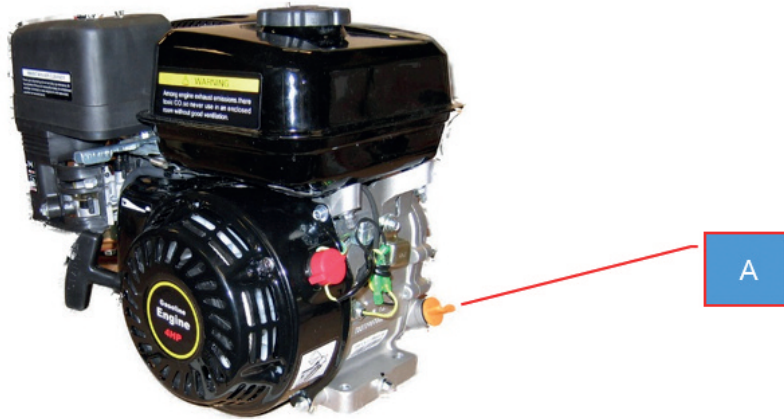
- a pen with blue or black ink
- a calculator

**General instructions**

- Use black or blue ball-point pen.
- The marks for questions are shown in brackets.
- This examination contains 12 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 a) Identify the part marked A in Figure 1. (1 mark)



Source: <http://www.garpen.com.au/images/4hp.jpg>

Figure 1

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- b) Identify the component shown in Figure 2. (1 mark)



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

Figure 2

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- c) Give **two** reasons why it is important to inspect a machine before it is used. (2 marks)

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2 a) State why it is good practice to wear a solid screen visor whilst strimming. (1 mark)

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b) Explain the potential dangers of using a quad bike on a hillside. (4 marks)

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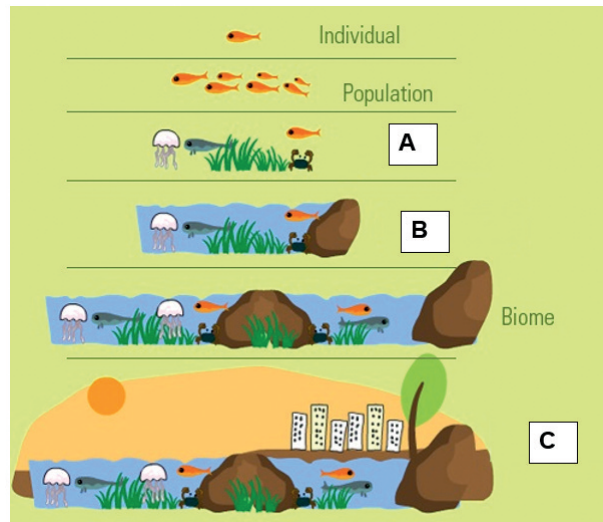
3 In ecology, what does 'fecundity' mean? (1 mark)

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4 a) Label the levels of organisation A, B and C in Figure 3.

(3 marks)



Source: <http://eschooltoday.com>

Figure 3

- A \_\_\_\_\_
- B \_\_\_\_\_
- C \_\_\_\_\_

b) State **three** causes of fluctuation in global wildlife population.

(3 marks)

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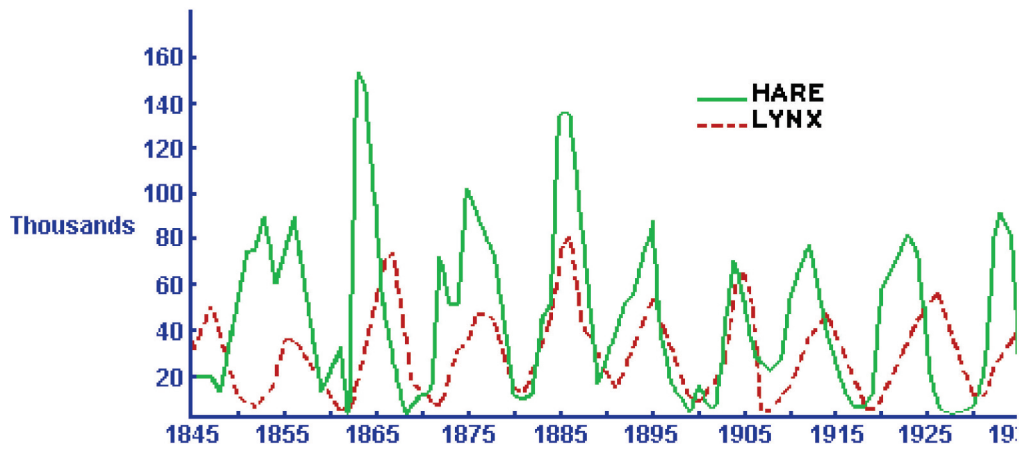
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5 The diagram in Figure 4 shows a classic population cycle between a predator and its prey.



Source: <https://services.math.duke.edu/education/ccp/materials/diffeq/predprey/lynxhare.gif>

Figure 4

Explain why the peak in lynx population usually occurs after the peak in hare population.

(4 marks)

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6 Explain the impact on an ecosystem of introducing a non-native species. (4 marks)

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7 Some species in the UK have undergone population changes in the last 100 years.  
a) For **one** named species, explain the reasons for its decline. (3 marks)

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b) For the same species, explain how conservation strategies have led to its recovery. (3 marks)

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8 Estate management tasks require planning to choose the correct materials, tools, PPE, measurements, and cost implications.



Figure 5

a) Name the tool shown in Figure 5. (1 mark)

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b) Name **one** piece of PPE that should be worn whilst using a hand held post thumper/knocker. (1 mark)

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c) A surfacing material costs £10 per m<sup>3</sup>. Calculate the total cost to surface an area of path which is 10 m x 4 m to a depth of 10 cm. You must show your working. (3 marks)

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d) Explain two factors that need to be considered when selecting materials to construct a path. (4 marks)

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9 A site needs to be cleared of low shrubby vegetation.

a) Identify **one** suitable method for this activity.

(1 mark)

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b) Give **one** advantage and **one** disadvantage of the method identified in 9a).

(2 marks)

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10 According to the Control of Vibration at Work Regulations 2005, explain what should be checked on a hand held petrol engine machine before use.

(3 marks)

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11 Define the terms biotic and abiotic, and describe their relationship in an ecosystem.

(3 marks)

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12 A landowner wishes to create a small woodland on a piece of existing grassland. Discuss the factors that will need to be considered and implemented for the woodland to be successfully established.

(12 marks)

Lined area for writing the answer.