



0173-524 MARCH 2018

Level 2 Technical Certificate in Land and Wildlife

Level 2 Land and Wildlife – Theory Exam (1)

Friday 16 March 2018
09:30 – 11:30

You should have the following for this examination

- a multiple-choice answer sheet
- a pen with black or blue ink
- calculator

This question paper is the property of the City and Guilds of London Institute and is to be returned after the examination.

Read the following notes before you answer any questions

- You **must** use a pen with black or blue ink to complete **all** parts of the answer sheet.
- Check that you have the correct answer sheet for the examination.
- Check that your name and candidate details are printed correctly at the top of your answer sheet.
- Inform the invigilator if your name or examination details are not correct.
- Each question shows **four** possible answers (lettered 'a', 'b', 'c' and 'd'); only **one** is correct.
- Decide which **one** is correct and mark your answer on the **answer sheet** with your pen.

For example if you decide 'a' is correct, mark your answer like this

101	<input checked="" type="radio"/>	<input type="radio"/> b	<input type="radio"/> c	<input type="radio"/> d
	Cancel	Cancel	Cancel	Cancel

If you want to change your answer, cancel your first choice by filling in the 'cancel' box below the circle like this

101	<input checked="" type="radio"/>	<input type="radio"/> b	<input type="radio"/> c	<input type="radio"/> d
	Cancel	Cancel	Cancel	

Then mark the answer which you have now decided is correct. For example if you now decide 'c' is correct, mark your answer like this

101	<input checked="" type="radio"/>	<input type="radio"/> b	<input checked="" type="radio"/>	<input type="radio"/> d
	Cancel	Cancel	Cancel	

Any other marks on the form may invalidate some of your answers.

- Any calculations or rough working can be done on the question paper.
- Attempt all questions. If you find a question difficult, leave it and return to it later.

This paper contains 50 questions. Answer them using the 'boxes' numbered 1 to 50 on the answer sheet.

1 Which **two** are the **most** likely first jobs for a Land and Wildlife Conservation student following a Level 2 education?

- 1 Underkeeper.
- 2 Fishery worker.
- 3 Assistant ranger.
- 4 Volunteer.

- a 1 and 2
- b 2 and 3
- c 3 and 4
- d 1 and 4

2 What is the **main** role of an underkeeper?

- a Assist the head keeper in game management, and pest control.
- b Assist the head keeper in pest control and surveying wildlife.
- c Assist the head keeper in game management and speak to tourists.
- d Assist the head keeper with estate maintenance and budgeting.

3 **Statement 1:**
Natural England issues rod licences for fishing.

Statement 2:
A rod licence for fishing is in relation to coastal areas.

Which of the following is correct for the statements above?

	Statement 1	Statement 2
a	True	True
b	True	False
c	False	True
d	False	False

4 **Statement 1:**
A statutory organisation is a government run organisation.

Statement 2:
BASC is an example of a statutory organisation.

Which of the following is correct for the statements above?

	Statement 1	Statement 2
a	True	True
b	True	False
c	False	True
d	False	False

5 Emma has an interview to attend tomorrow for the role of an assistant ranger. It has been raining all day today and it might continue to rain tomorrow, and Emma is worried that it might cause a lot of traffic issues. Emma is trying to prepare for the interview and hopes to do well.

Which of the following should Emma consider to prepare for the interview?

- 1 Read job description to understand the role.
- 2 Select and prepare suitable attire.
- 3 Update her covering letter and personal statement.
- 4 Leave in good time for the interview.
- 5 Contact referees to inform them of the interview.

- a 1, 2 and 5
- b 3, 4 and 5
- c 2, 3 and 4
- d 1, 2 and 4

- 6 Which of the below are essential pre-start checks on a tractor?
- 1 Oils and lubricants.
 - 2 Fuel and radio.
 - 3 Lights and floor mat.
 - 4 Guards and safety locks.
- a 1 and 2
 - b 2 and 3
 - c 3 and 4
 - d 1 and 4
- 7 What is the purpose of a harrow?
- a Burying trash.
 - b Aerating the soil.
 - c Lifting loose material to remove stones.
 - d Breaking up and smoothing the surface soil.
- 8 What is the **main** risk of using a tractor with a front end loader with one tyre severely deflated?
- a Using more oil.
 - b Wearing brake pads.
 - c Turning the vehicle over.
 - d Overheating the engine.
- 9 Which essential safety feature do you need to remove before using a chainsaw?
- a On/off switch.
 - b Chain brake.
 - c Chain catcher.
 - d Guide bar cover.
- 10 When is the **best** time to refuel a sit-in ATV?
- a When the engine is running.
 - b During the middle of the working day.
 - c When the engine is hot.
 - d At the end of the working day.
- 11 What is the essential piece of PPE to be worn when working with oil and fuel?
- a Gloves.
 - b Helmet.
 - c Waterproofs.
 - d Ear defenders.

- 12 What are the essential checks to be carried out before using a machine mower?
- a Oil, fuel and brakes.
 - b Oil, windscreen wipers.
 - c Brakes and air conditioning.
 - d Seat and air conditioning.
- 13 Sam has been asked to spray a small patch of nettles with a herbicide. He decides to use a knapsack sprayer to complete this task. Is this the correct choice of equipment/machinery?
- a No, because a tractor mounted sprayer will be of high capacity.
 - b Yes, because the knapsack sprayer is very fuel efficient.
 - c Yes, because it is only a small patch of nettles.
 - d No, because herbicides should not be sprayed on nettles.
- 14 Which one of the following is correct regarding legally driving a tractor on the road at the age of 16?
- a Can drive a tractor over 3 m wide with a licence.
 - b Can drive a tractor of any width, without a licence.
 - c Can drive a tractor over 3.5 m wide, with a licence.
 - d Can drive a tractor under 2.45 m wide, with a licence.



Source www.bing.com

Figure 1

- 15 What type of habitat is shown in Figure 1?
- a Estuary.
 - b Lowland.
 - c Moorland.
 - d Marginal wet land.

- 16 In which of the below habitats are you **most** likely to find a Red Squirrel?
- Grassland.
 - Estuary.
 - Woodland.
 - Marginal wetland.
- 17 Which one of the following **best** describes a natural still pond?
- Levee.
 - Lentic.
 - Lotic.
 - Leeching.
- 18 Which one of the following is the **main** factor preventing heather growth in lowland areas?
- Climate.
 - Soil type.
 - Aspect.
 - Fauna.
- 19 What is Fescue a species of?
- Tree.
 - Shrub.
 - Grass.
 - Lichen.
- 20 Light, temperature, air, water, soil and climate are all examples of what factor?
- Living.
 - Boreal.
 - Abiotic.
 - Biotic.
- 21 Which phrase correctly finishes this statement: 'A species is a...'
- specific part of the abiotic environment
 - way of describing all the living parts of an ecosystem
 - part of the natural decomposing materials in soil
 - group of organisms that can successfully mate with each other and reproduce.
- 22 What is an ecosystem?
- All the interacting organisms that live in an environment and the abiotic parts of the environment that affect the organisms.
 - The relationship between all the abiotic elements of a pond.
 - A person who observes and studies the interactions between the biotic and abiotic parts of the environment.
 - The relationship among the biotic parts of the environment.
- 23 Which of the following **two** organisms are producers?
- Plants and phytoplankton.
 - Plants and consumers.
 - Consumers and phytoplankton.
 - Phytoplankton and chlorophyll.
- 24 Which one of the following statements is **false** about a food chain?
- A food chain begins with a plant and ends with an animal.
 - The energy flow in the food chain starts with the sun.
 - A food chain always starts with a carnivore at the bottom.
 - A food chain involves primary and secondary consumers.
- 25 Fill in the gap in the following statement.
- Producers make food using _____ to trap the sun's energy in a process called photosynthesis.
- Food chains.
 - Chlorophyll.
 - Cellular respiration.
 - Microscopic organisms.
- 26 Which one of the following is a non-native species in the UK?
- Red squirrel.
 - Natterjack toad.
 - Signal crayfish.
 - Red deer.

- 27 Which one of the following is a protected species in the UK?
- a Fox.
 - b Stoat.
 - c Weasel.
 - d Polecat.
- 28 What category do lice come under?
- a Virus.
 - b Fungi.
 - c Bacteria.
 - d Parasite.
- 29 During the rut, a red Stag will roar and scent mark. Which one of the following behaviours is this an example for?
- a Social.
 - b Competition.
 - c Territorial.
 - d Predatory.

30 **Statement 1:**
The Countryside and Rights of Way Act 2000 is a piece of national legislation.

Statement 2:
The Countryside and Rights of Way Act 2000 applies to whole of the UK.

Which of the following is correct for the statements above?

	Statement 1	Statement 2
a	True	True
b	True	False
c	False	True
d	False	False

- 31 What is an area set aside for the purpose of preserving certain animals, plants, or both, best described as?
- a Grass land.
 - b Arable land.
 - c Nature reserve.
 - d Protected.

- 32 What does SSSI stand for?
- a Special Spring Source of Interest.
 - b Site of Special Scientific Interest.
 - c Sacred Subterranean Source of Interest.
 - d Special Subterranean Source of Interest.
- 33 Which of the following situations will not require a ranger working on a SSSI to request permission to make changes to the site?
- a When livestock are at risk from flood.
 - b When livestock require fresh grazing.
 - c When removing habitat.
 - d When replanting an area.



Source: <http://www.nhs.uk>

Figure 2

- 34 What disease would the symptom in Figure 2 be associated with?
- a Flea bite.
 - b Meningitis.
 - c Lyme.
 - d Nettle sting.



Source www.google.co.uk

Figure 3

- 35 What is the primary use for the tool shown in Figure 3?
- a Knocking in and removing nails.
 - b Screwing in screws and removing nails.
 - c Knocking in nails and screwing in screws.
 - d Knocking in screws and removing screws.



Source www.google.co.uk

Figure 4

- 36 What is the type of fence shown in Figure 4?
- a Close board.
 - b Post and rail.
 - c Wire stock fence.
 - d Chestnut paling.



Source www.diy.com

Figure 5

- 37 What is the primary function of the fixing shown in Figure 5?
- a Joining wood.
 - b Tightening wire.
 - c Joining metal to metal.
 - d Joining wood to concrete.



Source www.google.co.uk

Figure 6

- 38 What is the structure shown in Figure 6 called?
- a Stile.
 - b Bridge.
 - c Way marker.
 - d Height barrier.
- 39 What is **not** a common hedge row plant?
- a Hawthorn.
 - b Blackthorn.
 - c Field maple.
 - d Horse chestnut.

40 Which of the following is **most** suitable for coppicing?

- a Hazel.
- b Oak.
- c Ash.
- d Fir.

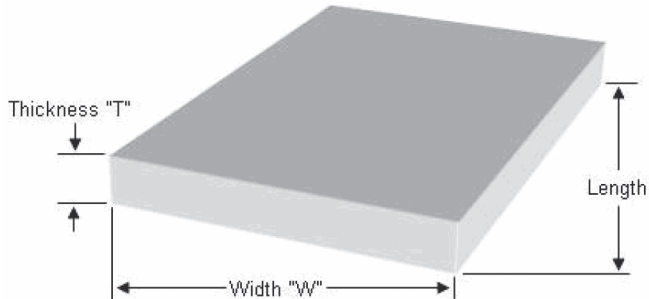


Figure 7

41 Calculate, in m^3 , the volume of the base shown in Figure 7.

Width 200 cm
Length 500 cm
Depth 5 cm

- a $0.2 m^3$
- b $0.3 m^3$
- c $0.5 m^3$
- d $0.7 m^3$

42 Sam has been asked to construct a walkway through a woodland area. Which of the below materials is the most suitable for the task?

- a Tarmac.
- b Concrete.
- c Wood chip.
- d Plastic chippings.

To answer questions 43, 44 and 45 you must refer to Scenario 1.

Scenario 1

You are operating a tractor with a PTO driven toppler. Some wire fencing gets caught up in the toppler blades. To carry on with the task you need to remove and dispose of the wire safely.

43 What is the safest order of procedures before removing the wire?

- a Stop the PTO, turn off tractor, and remove the key.
- b Turn off the PTO, leave the tractor running.
- c Stop the PTO, turn off the tractor and leave the key in.
- d Leave the tractor and PTO running.

44 What are the key safety considerations you need to be aware of when removing the wire and what PPE would be useful?

- a Crushing, cuts, gloves and goggles.
- b Slipping, cuts, waterproofs, hard hat.
- c Tripping, slipping, gloves, hard hat.
- d Crushing, slipping, Hi-Viz clothing.

45 Once the wire has been removed, it will need to be disposed of safely. Which agency would provide advice on correct disposal procedures?

- a DEFRA.
- b Natural England.
- c Forestry Commission.
- d Environment Agency.

To answer questions 46, 47 and 48 you must refer to Scenario 2.

Scenario 2

You have been asked to construct a suitable fence to protect ground nesting birds, on a piece of uncultivated grass land.

To construct the fence, you will need to clear a proposed fence line of trash and weeds.

The fence is to be constructed of rabbit fence wire and stock wire with posts 3 m apart over a length of 90 m.

- 46 What is the most suitable piece of machinery for clearing the fence line?
- a Brush cutter.
 - b Chainsaw.
 - c Whacker plate.
 - d Steam cleaner.
- 47 Which of the species below will be most likely to nest within the area?
- a Owl.
 - b Lapwing.
 - c Buzzard.
 - d Sparrow hawk.
- 48 How many metres of wire **and** how many posts will be required to complete the fence?
- a 20 posts and 90 m of wire.
 - b 21 posts and 180 m of wire.
 - c 31 posts and 180 m of wire.
 - d 30 posts and 180 m of wire.

To answer questions 49 and 50 you must refer to Scenario 3.

Scenario 3

A Devonshire landowner has to carry out maintenance on a hedgerow across his land. He needs to remove a small section of hedgerow to allow for a larger access for farm machinery. He has a strong commitment to the environment and wants to limit the impact on the local flora and fauna.

- 49 Which one of the following species would be **most** affected by the removal of hedgerow?
- a Song thrush.
 - b Badger.
 - c Muntjac.
 - d Brown hares.
- 50 Who does the landowner need to consult before the removal of the hedge?
- a Environment Agency.
 - b Forestry Commission.
 - c DEFRA.
 - d None of the above.

NOW GO BACK AND CHECK YOUR WORK

- IMPORTANT -
Are the details at the top of the answer sheet correct?
Have you filled in your answers in INK in the appropriate boxes on the answer sheet?