

Please check the examination details below before entering your candidate information

Candidate surname	Other names		
Centre Number	Learner Registration Number		
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<b>Pearson BTEC Level 3 Nationals, Foundation Diploma, Diploma, Extended Diploma</b>			
Time 1 hour 30 minutes	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 5px;">Paper reference</td> <td style="padding: 5px; font-size: 24px; font-weight: bold;">31645H</td> </tr> </table>	Paper reference	31645H
Paper reference	31645H		
<h2 style="margin: 0;">Animal Management</h2> <h3 style="margin: 0;">UNIT 2: Animal Biology</h3>			
<p><b>You do not need any other materials.</b></p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 5px;">Total Marks</td> </tr> </table>	Total Marks	
Total Marks			

### Instructions

- Use **black** ink or ball-point pen.
- **Fill in the boxes** at the top of this page with your name, centre number and learner registration number.
- Answer **all** questions.
- Answer the questions in the spaces provided  
– *there may be more space than you need.*

### Information

- The total mark for this paper is 80.
- The marks for **each** question are shown in brackets  
– *use this as a guide as to how much time to spend on each question.*

### Advice

- Read each question carefully before you start to answer it.
- Try to answer every question.
- Check your answers if you have time at the end.

Turn over ►

P62782RA

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Answer ALL questions. Write your answers in the spaces provided.

1 Animals can be classified into groups for identification.

(a) Complete the table with the **two** missing vertebrate classes.

(2)

Mammalia
Reptilia
Pisces

(b) State the name of a group of similar animals that can produce fertile young.

(1)

(c) Give the names of the **four** bases that pair together to form DNA.

(4)

- 1 .....
- 2 .....
- 3 .....
- 4 .....

(Total for Question 1 = 7 marks)

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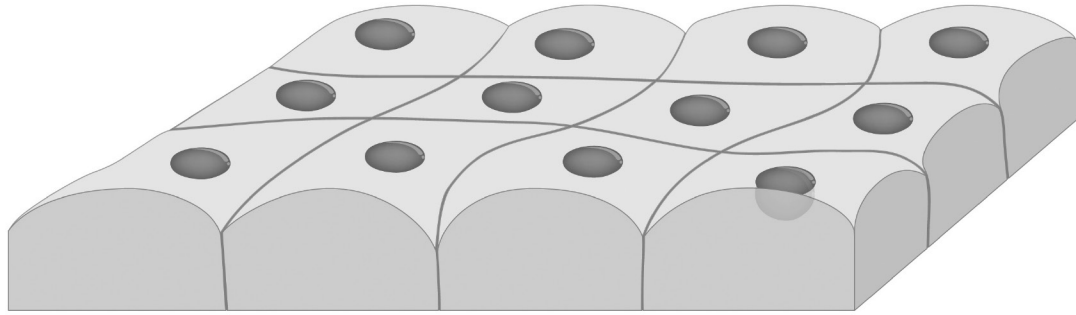
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2



(Source: © DesignuaShutterstock)

(a) Give the name of the type of tissue shown in the diagram. (1)

(b) Describe these cells. (4)

Neuron

Glial

(c) Give the names of **two** tissue types found in skin. (2)

1

2



P 6 2 7 8 2 R A 0 3 1 6

(d) Describe facilitated diffusion.

(4)

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(Total for Question 2 = 11 marks)

3 (a) State the names of the **two** phases in the cardiac cycle.

(2)

1 .....

2 .....

(b) Describe the movement of carbon dioxide from cells to leaving the body.

(4)

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(c) Give **three** structures used in inhalation and exhalation in birds.

(3)

- 1 .....
- 2 .....
- 3 .....

(d) Explain the difference between foetal haemoglobin and adult haemoglobin.

(2)

- .....
- .....
- .....

(e) State the name of the vein carrying deoxygenated blood to the heart.

(1)

- .....

**(Total for Question 3 = 12 marks)**

4 (a) Complete the table to show the names and functions of food types in the body.

(4)

Name of food type	Function
Proteins	
Fibre	
	Provides energy
	Stored energy, protection and insulation



(b) Explain **one** function of the liver.

(2)

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.....

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(c) Give the names of **two** digestive disorders in animals.

(2)

1 .....

2 .....

(d) Describe how insulin and glucagon regulate blood glucose levels.

(4)

Insulin

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Glucagon

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(Total for Question 4 = 12 marks)

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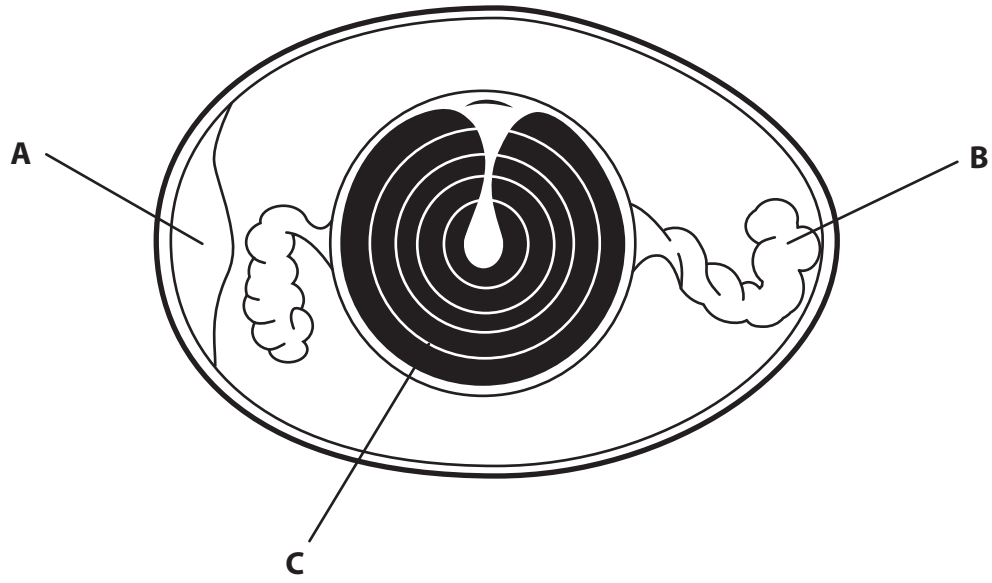
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5



A cross section of a chicken egg.

(a) Identify the structures labelled A, B and C.

(3)

A

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B

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C

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(b) State where fertilisation takes place in the reproductive tract of a chicken.

(1)

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(e) Give the name of the process where water moves across a semipermeable membrane.

(1)

(f) Explain **one** function of the nucleolus.

(2)

(Total for Question 5 = 19 marks)

6 The cardiovascular system allows blood to circulate around the body to all cells.

(a) Explain the structure of arteries and capillaries.

(4)

Arteries

Capillaries

(b) Give the name of blood formation.

(1)

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(c) Explain **one** function of **each** of these components of blood.

(4)

Platelets

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Plasma

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(d) Explain the role of valves in the heart.

(2)

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**(Total for Question 6 = 11 marks)**

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The thermoregulatory system allows animals to maintain a constant body temperature in response to changing external conditions.

7 Discuss how both ectothermic and endothermic animals respond to environmental temperature changes.

(8)

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**(Total for Question 7 = 8 marks)**

**TOTAL FOR PAPER = 80 MARKS**





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