

Please check the examination details below before entering your candidate information

Candidate surname

Other names

Pearson BTEC Level 3
Nationals, Extended
Certificate, Foundation
Diploma, Diploma,
Extended Diploma

Centre Number

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Learner Registration Number

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Friday 17 January 2020

Morning (Time: 1 hour 30 minutes)

Paper Reference **31645H**

Animal Management

Unit 2: Animal Biology

You do not need any other materials.

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 ►

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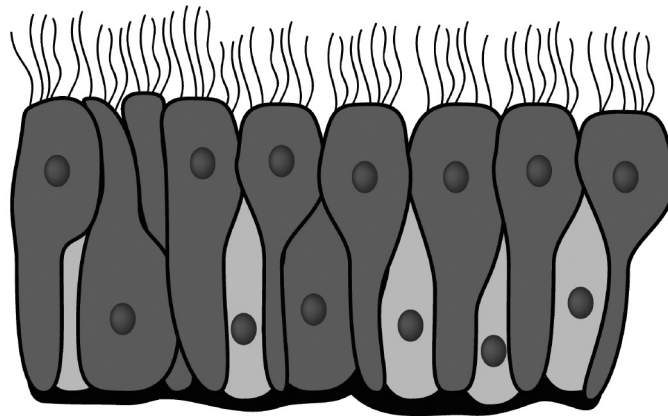
Answer ALL questions. Write your answers in the spaces provided.

1 There are four basic types of animal tissue.

(a) Complete the table below with the **two** missing tissue types.

(2)

Epithelial tissue
Muscle tissue



(Source: © TimoninaShutterstock)

(b) Give the name of the small "hair-like" projections found on some epithelial tissue.

(1)

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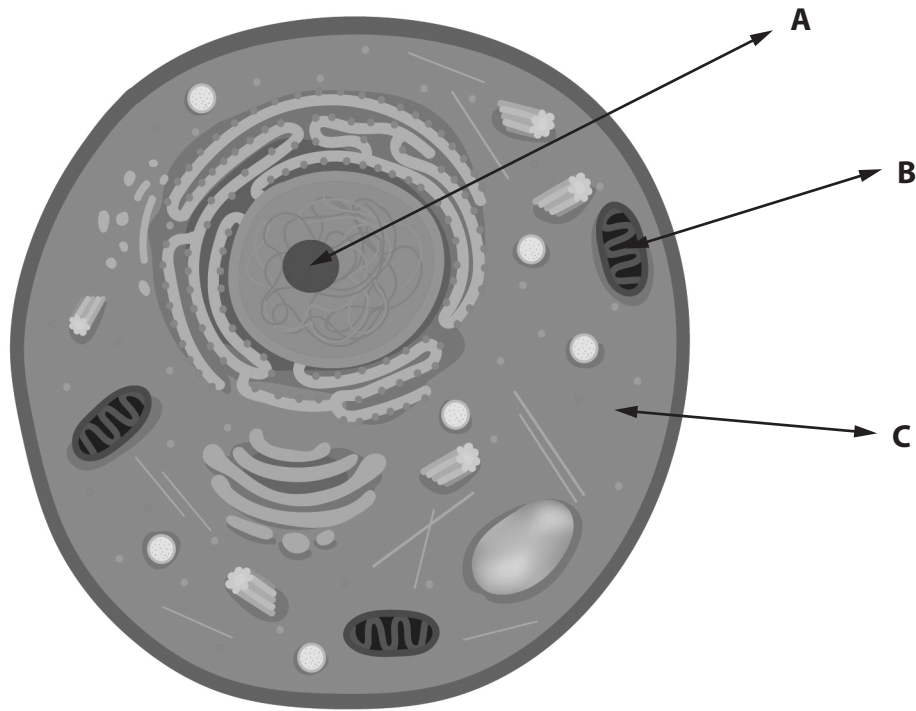
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The diagram below shows an animal cell.



(Source: © AchiichiiiShutterstock)

(c) Give the names of the structures labelled A, B and C.

(3)

A

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B

.....

C

.....

(d) State **one** function of the cytoskeleton.

(1)

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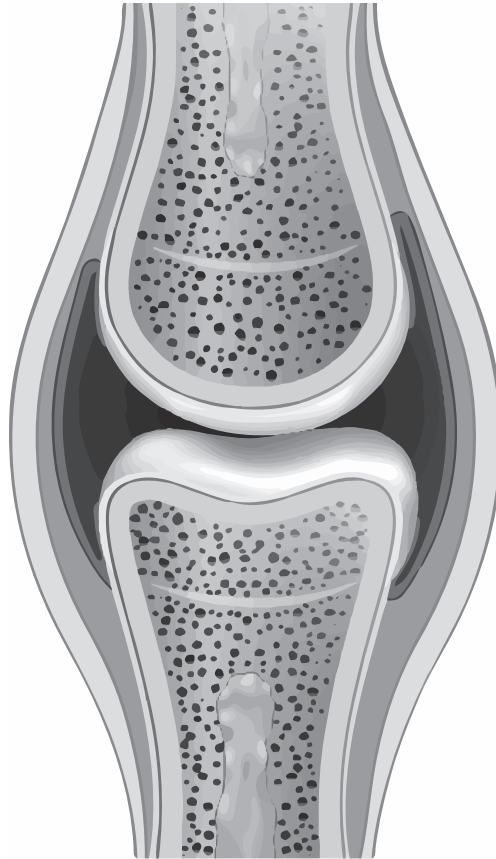
(Total for Question 1 = 7 marks)

.....



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2 The diagram below shows a knee joint.



(a) Give the name of the type of joint in the diagram above.

(1)

(b) Explain the function of ligaments and tendons.

(4)

Ligaments

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Tendons

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(c) Give **two** symptoms of hip dysplasia in dogs.

(2)

1

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2

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(d) Describe the internal structure of bones in mammals and birds.

(4)

Mammals

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Birds

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(Total for Question 2 = 11 marks)

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3 (a) State the name of the **two** parts of the central nervous system (CNS).

(2)

1

2

(b) Explain **two** functions of the parasympathetic nervous system.

(4)

1

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2

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(c) Describe how a nerve impulse is transmitted between neurons.

(4)

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(d) State **two** symptoms of listeriosis in ruminants.

(2)

1

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2

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(Total for Question 3 = 12 marks)

4 The eye is a complex organ vital to a species' survival.

(a) Complete the table below to show the names and functions of structures in the eye.

(4)

Name of structure	Function
Iris	
Lens	
	Provides sharp, central vision
	Provides strength, structure and protection



(b) Explain eye positioning in owls.

(2)

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(c) State the photoreceptors in the eye.

(2)

1

2

(d) Explain **two** adaptations that help animals to see in the dark.

(4)

1

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2

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(Total for Question 4 = 12 marks)

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5 (a) Explain **two** ways birds' beaks are adapted to feed.

(4)

1

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2

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(b) State the name of the enzyme found in saliva.

(1)

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(c) Give **three** examples of mechanical digestion.

(3)

1

2

3

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(d) Animals get the nutrients they need from different food groups. They get these from eating plants or prey animals.

Discuss the importance of the different food groups needed in an animal's diet.

(8)

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(e) Give the name of **one** digestive enzyme secreted from the pancreas.

(1)

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(f) Explain **one** way intestinal villi help the absorption of nutrients.

(2)

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(Total for Question 5 = 19 marks)

6 (a) Compare the roles of the hormones insulin and glucagon.

(4)

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(b) Give the name of a hormone released when an animal is stressed.

(1)

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(c) State how the levels of the following hormones change when an animal is giving birth.

(4)

Oestrogen

Oxytocin

Progesterone

Prostaglandins

(d) Explain **one** role of extraembryonic membranes in an egg.

(2)

(Total for Question 6 = 11 marks)



7 DNA is present in cells and is the genetic information that is the blueprint for life.

Discuss the structure of DNA and how it codes for amino acids.

(8)

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Handwriting practice area with horizontal dotted lines.

(Total for Question 7 = 8 marks)

TOTAL FOR PAPER = 80 MARKS



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