Centre No.				Paper Reference			Surname	Initial(s)			
Candidate No.			7	0	4	2	/	0	2	Signature	

Paper Reference(s)

7042/02

London Examinations GCE

Human Biology Ordinary Level

Paper 2

Wednesday 23 January 2008 – Afternoon

Time: 2 hours

Materials	required	for	examination
VI.1			

Items included with question papers

Question Number	Leav Blar
1	
2	
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Examiner's use only

Instructions to Candidates

In the boxes above, write your centre number, candidate number, your surname, initial(s) and signature.

Check that you have the correct question paper.

The paper is arranged in TWO sections, A and B.

In Section A, answer any THREE questions. In Section B, answer any TWO questions.

Write your answers in the spaces provided in this question paper.

Indicate which question you are answering by marking the box (\boxtimes) . If you change your mind, put a line through the box (\boxtimes) and then indicate your new question with a cross (\boxtimes) .

Information for Candidates

Calculators may be used.

The total mark for this paper is 100. All questions carry equal marks.

Marks for parts of questions are shown in round brackets: e.g. (2).

This paper has 9 questions. All blank pages are indicated.

Advice to Candidates

Write your answers neatly and in good English.

Draw labelled diagrams where these will make the answers clearer. Facts explained in a labelled diagram need not be repeated in the written answer.

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Turn over



SECTION A

Answer any THREE questions in this section.

If you answer Question 1, put a cross in this box \square .

l. (a)) Changes in volume and pressure occur in the lungs during breathing. Describe how these changes are brought about.
	(8)

	rate of breathing changes when there is a change in activity.
	(8)
E)	(8) Describe how oxygen and carbon dioxide are carried in the blood.
:)	
c)	
c)	
E)	
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3

(4)

If you answer Question 2, put a cross in this box \square .

(a)		scribe how the structures of incisors, canines and molars are each suited to the ctions.
(b)	 (i)	Explain how tooth decay is caused and how thorough brushing of your teetl likely to reduce tooth decay.
(b)	 (i)	Explain how tooth decay is caused and how thorough brushing of your teetl
(b)	 (i)	Explain how tooth decay is caused and how thorough brushing of your teetl
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(b)	(i)	Explain how tooth decay is caused and how thorough brushing of your teetl

(11)	Describe the importance of a suitable diet in the development of healthy teeth and gums.
	(6)
c) Ap	coart from chewing, what other processes occur in the mouth to help digest a piece bread?
c) Ap of	part from chewing, what other processes occur in the mouth to help digest a piece
c) Ap of 	part from chewing, what other processes occur in the mouth to help digest a piece
of 	part from chewing, what other processes occur in the mouth to help digest a piece
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		If you answer Question 3, put a cross in this box \square .	
3.	(a)	What is meant by the term tissue ? Explain your answer with reference to two named examples.	

(5)

Descri	be the functions of each of the following cell organelles:
•	nucleus mitochondria
•	cytoplasm.
	-3 F
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••••••	
•••••	
•••••	
•••••	



(9)

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•••••
 (6)

Leave blank If you answer Question 4, put a cross in this box \square . **4.** Reflex actions occur in many parts of the body. (a) What is meant by the term **reflex action**? **(4)** (b) Draw a diagram to show a reflex arc for a withdrawal reflex that would allow a person to remove their finger from a hot plate. On the diagram, label the structures that make up the reflex arc.

(8)



and the of the file for	flex and the blink reflex.	
		 (8)

If you answer Question 5, put a cross in this box \square .

5. (a)	Various methods of birth control are available. Each is based on a biological principle. Explain the biological principle on which each of the following is based: contraceptive pill, condom and sterilisation.					
	In your answer describe the advantages and disadvantages of each method.					
	(10)					

H 2 8 7 3 2 A 0 1 1 2 0

mitosis.
(4)
Give an outline of the changes that occur in the growth and development in a boy between the ages of 12 and 16 years.
(6)

SECTION B

Answer any TWO questions in this section.

If you answer Ouestion 6, put a cross in this box ...

a)	In many parts of the world, the number of cars is increasing and many people cont to smoke. Describe how exhaust gases from cars and the smoking of cigarettes at the quality of the air that people breathe and their health.
	the quality of the air that people breathe and their health.

(10)



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	y a person is able to become	immune to a bacterial of	(6) disease, such as
Explain whe tuberculosi	y a person is able to become , but cannot develop immunity t	immune to a bacterial of to diseases that result from	lisease, such as
Explain whetuberculosi	y a person is able to become, but cannot develop immunity t	immune to a bacterial of to diseases that result from	lisease, such as
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Explain whetuberculosi	y a person is able to become, but cannot develop immunity t	immune to a bacterial of to diseases that result from	lisease, such as
Explain what tuberculosi	y a person is able to become, but cannot develop immunity t	immune to a bacterial of to diseases that result from	lisease, such as

If you answer Question 7, put a cross in this box \square .

7. (a) Draw a large labelled diagram to illustrate the structure of a bacterium.

(6)

(b)	Some bacteria are pathogens. by the term pathogen .	Explain, giving two bacterial examples, what is meant

(3)

	(8)
(d)	Give three ways in which the structure of a fungus differs from that of a bacterium.
	(3)

If you answer Question 8, put a cross in this box \square .

Describe measures the each is likely to work	control Schistosomiasis	s and explain
	 	•••••
	 	•••••
	 	•••••

	Explain how epidemic diseases differ from endemic diseases.
	(4)
(ii)	Explain why tuberculosis could become an epidemic but Schistosomiasis is
(11)	unlikely to become an epidemic.
	(6)
	(6) (Total 20 marks)

(a)	Explain how humans depend on plants for their survival.
(b)	A food chain shows how energy is passed from producers to different consumer Suggest why food chains do not usually contain more than four consumers.
(b)	A food chain shows how energy is passed from producers to different consumer
(b)	A food chain shows how energy is passed from producers to different consumer
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(10)
(Total 20 marks)
TOTAL FOR SECTION B: 40 MARKS