Revision Sheet

Pearson Edexcel · International A-Level · Biology · Unit 1 Molecules, Diet, Transport and Health

22 vocabulary items · 22 marks of exam questions (4 questions)

Part 1 · Vocabulary review answer key. Section A wants the exact English spelling.

Question	Answer	Marks
1	active site	1
2	Active transport	1
3	amylopectin	1
4	amylose	1
5	Blood pressure	1
6	Condensation	1
7	Diffusion	1
8	enzyme	1
9	fibrinogen	1
10	glycogen	1
11	glycosidic bond	1
12	Hydrolysis	1
13	mononucleotide	1
14	mRNA	1
15	Mutations	1
16	prothrombin	1
17	risk factors	1
18	Saturated	1
19	Statins	1
20	thrombin	1
21	thromboplastin	1
22	Unsaturated	1

23(a)	C The only correct answer is C. *A is incorrect because amino acids are not found in DNA* *B is incorrect because a mutation is a change in DNA* *D is incorrect because there are no bases in protein*		**(1)**
23(c)	An answer that includes three of the following points: • as age increase the number of cases increases (in both males and females) (1) • up to 57 years of age {males and females have a similar number of cases / females have a higher incidence} (1) • above 57 the number of cases is higher in males (1) • onset of cancer is later in males than females (1)	**ACCEPT** converse where appropriate **ACCEPT** men and women throughout **ACCEPT** positive correlation **IGNORE** risk for cases **ACCEPT** 58 **ACCEPT** 58 **NB** penalise wrong age once **IGNORE** just figures quoted	**(3)**

24(a)	The correct answer is **C**, fibrin ***A** is incorrect because cholesterol is not part of the wound* ***B** is incorrect because collagen is inside the artery wall* ***D** is incorrect because fibrinogen is soluble*		**(1)**
24(b)	The correct answer is **A**, 1 ***B** is incorrect because prothrombin is the only inactive enzyme precursor in the list* ***C** is incorrect because prothrombin is the only inactive enzyme precursor in the list* ***D** is incorrect because prothrombin is the only inactive enzyme precursor in the list*		**(1)**

24(d)	An explanation that includes three of the following points: • to keep thromboplastin separate from prothrombin (1) • so that prothrombin will not be converted into thrombin (1) • the blood clotting process will be prevented (1) • to have thromboplastin {available / released quickly} (when needed) (1)	**ACCEPT** other descriptions of what will not happen e.g. fibrin will not be formed **ACCEPT** will be at a high concentration (when needed) **NB** award mps if candidate clearly states what would happen if the thromboplastin was NOT inside platelets	**(3)**

25(a)(i)	The correct answer is **B** ***A** is incorrect because the aorta takes blood away from the left hand side of the heart* ***C** is incorrect because pulmonary vein returns blood to the left hand side of the heart* ***D** is incorrect because the vena cava returns blood to the right atrium*		**(1)**

25(b)(i)	• values read from the graph and subtracted to give the time for one heart beat (1) • 75.0 (1)	0.8 / any pair of values that give 0.8 when subtracted **DO NOT ACCEPT** 75 ECF from mp 1 if values correspond to readings from graph Bald answer of 75.0 = 2 marks Bald answer of 75 = 1 mark	**(2)**

25(b)(ii)	An answer that includes three of the following points: • graph will be {the same / similar in} {shape / position} (1) • because the left hand side and right hand side beat simultaneously (1) • peaks will be lower (1) • because pressure in right hand side is lower {as blood is only pumped to <u>lungs</u> / to prevent damage to <u>alveoli</u>} (1)	**NB** 'It' refers to the line for the right ventricle **NB** accept converse where appropriate **ACCEPT** line **ACCEPT** description e.g. both ventricles contract at the same time **IGNORE** graph lower down **ACCEPT** because right ventricle has {less muscle / thinner walls} as blood is only pumped to <u>lungs</u> less force to <u>lungs</u> **NB If candidate says that there is something drawn on the graph you must send it to review**	**(3)**

26(a)

Polymer	Monomer	Elements in monomer	Type of bond
Carbohydrates	monosaccharide	carbon, hydrogen and oxygen	glycosidic
Nucleic acids	(mono)nucleotide	carbon, hydrogen, oxygen, phosphorus and nitrogen	phosphodiester
Proteins	amino acid	carbon, hydrogen, oxygen, (sulfur) and nitrogen	peptide

ACCEPT chemical symbols C, H, O

ACCEPT chemical symbols C, H, O, N, S

(4)

26(b)

A description that includes three of the following points:

TWO FROM

- (one) glycerol and three fatty acids (1)
- joined by {condensation reaction / ester bond} (1)
- by enzymes (1)

AND

- (at least) one fatty acid is {unsaturated / has a CC double bond} (1)

(3)