

Cambridge Technicals Health and Social Care

Unit 4: Anatomy and physiology for health and social care

Level 3 Cambridge Technical in Health and Social Care
05831 - 05833 & 05871

Mark Scheme for June 2023

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This mark scheme is published as an aid to teachers and students, to indicate the requirements of the examination. It shows the basis on which marks were awarded by examiners. It does not indicate the details of the discussions which took place at an examiners' meeting before marking commenced.

All examiners are instructed that alternative correct answers and unexpected approaches in candidates' scripts must be given marks that fairly reflect the relevant knowledge and skills demonstrated.

Mark schemes should be read in conjunction with the published question papers and the report on the examination.

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MARKING PREPARATION

PREPARATION FOR MARKING

RM ASSESSOR

1. Make sure that you have accessed and completed the relevant training packages for on-screen marking: *RM Assessor Assessor Online Training*; *OCR Essential Guide to Marking*.
2. Make sure that you have read and understood the mark scheme and the question paper for this unit. These are posted on the RM Cambridge Assessment Support Portal <http://www.rm.com/support/ca>
3. Log-in to RM Assessor and mark the **required number** of practice responses (“scripts”) and the **number of required** standardisation responses.

MARKING

1. Mark strictly to the mark scheme.
2. Marks awarded must relate directly to the marking criteria.
3. The schedule of dates is very important. It is essential that you meet the RM Assessor 50% and 100% (traditional 40% Batch 1 and 100% Batch 2) deadlines. If you experience problems, you must contact your Team Leader (Supervisor) without delay.
4. If you are in any doubt about applying the mark scheme, consult your Team Leader by telephone or the RM Assessor messaging system, or by email.
5. **Crossed Out Responses**
Where a candidate has crossed out a response and provided a clear alternative then the crossed out response is not marked. Where no alternative response has been provided, examiners may give candidates the benefit of the doubt and mark the crossed out response where legible.

Rubric Error Responses – Optional Questions

Where candidates have a choice of question across a whole paper or a whole section and have provided more answers than required, then all responses are marked and the highest mark allowable within the rubric is given. Enter a mark for each question answered into RM assessor, which will select the highest mark from those awarded. (*The underlying assumption is that the candidate has penalised themselves by attempting more questions than necessary in the time allowed.*)

Multiple Choice Question Responses

When a multiple choice question has only a single, correct response and a candidate provides two responses (even if one of these responses is correct), then no mark should be awarded (as it is not possible to determine which was the first response selected by the candidate).

When a question requires candidates to select more than one option/multiple options, then local marking arrangements need to ensure consistency of approach.

Contradictory Responses

When a candidate provides contradictory responses, then no mark should be awarded, even if one of the answers is correct.

Short Answer Questions (requiring only a list by way of a response, usually worth only one mark per response)

Where candidates are required to provide a set number of short answer responses then only the set number of responses should be marked. The response space should be marked from left to right on each line and then line by line until the required number of responses have been considered. The remaining responses should not then be marked. Examiners will have to apply judgement as to whether a 'second response' on a line is a development of the 'first response', rather than a separate, discrete response. *(The underlying assumption is that the candidate is attempting to hedge their bets and therefore getting undue benefit rather than engaging with the question and giving the most relevant/correct responses.)*

Short Answer Questions (requiring a more developed response, worth two or more marks)

If the candidates are required to provide a description of, say, three items or factors and four items or factors are provided, then mark on a similar basis – that is downwards (as it is unlikely in this situation that a candidate will provide more than one response in each section of the response space.)

Longer Answer Questions (requiring a developed response)

Where candidates have provided two (or more) responses to a medium or high tariff question which only required a single (developed) response and not crossed out the first response, then only the first response should be marked. Examiners will need to apply professional judgement as to whether the second (or a subsequent) response is a 'new start' or simply a poorly expressed continuation of the first response.

6. Always check the pages (and additional objects if present) at the end of the response in case any answers have been continued there. If the candidate has continued an answer there, then add a tick to confirm that the work has been seen.

7. Award No Response (NR) if:
- there is nothing written in the answer space

Award Zero '0' if:

- anything is written in the answer space and is not worthy of credit (this includes text and symbols).















Team Leaders must confirm the correct use of the NR button with their markers before live marking commences and should check this when reviewing scripts.

8. The RM Assessor **comments box** is used by your team leader to explain the marking of the practice responses. Please refer to these comments when checking your practice responses. **Do not use the comments box for any other reason.** If you have any questions or comments for your team leader, use the phone, the RM Assessor messaging system, or e-mail.
9. *Assistant Examiners will send a brief report on the performance of candidates to their Team Leader (Supervisor) via email by the end of the marking period. The report should contain notes on particular strengths displayed as well as common errors or weaknesses. Constructive criticism of the question paper/mark scheme is also appreciated.*

10. For answers marked by levels of response:
- To determine the level** – start at the highest level and work down until you reach the level that matches the answer
 - To determine the mark within the level**, consider the following

Descriptor	Award mark
On the borderline of this level and the one below	At bottom of level
Just enough achievement on balance for this level	Above bottom and either below middle or at middle of level (depending on number of marks available)
Meets the criteria but with some slight inconsistency	Above middle and either below top of level or at middle of level (depending on number of marks available)
Consistently meets the criteria for this level	At top of level

Annotations available for marking of scripts

Annotation	Meaning
	Tick – correct answer
	Cross – incorrect answer
	Level 1
	Level 2
	Level 3
	Benefit of doubt (This does count as a mark – so do not ‘tick’ as well)
	Omission mark
	Too vague
	Repeat
	To acknowledge additional pages/ notes were read
	Not Relevant - ‘noted but no credit given’
	Blank Page
	Positive
	Negative

DO NOT USE ANY OTHER ANNOTATION

Question			Answer	Marks	Guidance										
1	(a)		<p>One mark for each correct answer, three required.</p> <table border="1"> <thead> <tr> <th>Process</th> <th>Role</th> </tr> </thead> <tbody> <tr> <td>absorption</td> <td>An enzyme in saliva converts starch to maltose.</td> </tr> <tr> <td>assimilation</td> <td>Fats are emulsified into smaller globules</td> </tr> <tr> <td>chemical digestion</td> <td>Products of digestion get taken up and stored by liver cells.</td> </tr> <tr> <td>mechanical digestion</td> <td>The products of fat digestion diffuse into lacteals.</td> </tr> </tbody> </table>	Process	Role	absorption	An enzyme in saliva converts starch to maltose.	assimilation	Fats are emulsified into smaller globules	chemical digestion	Products of digestion get taken up and stored by liver cells.	mechanical digestion	The products of fat digestion diffuse into lacteals.	3	<p>One mark per link. DO NOT ALLOW more than one link between boxes.</p>
Process	Role														
absorption	An enzyme in saliva converts starch to maltose.														
assimilation	Fats are emulsified into smaller globules														
chemical digestion	Products of digestion get taken up and stored by liver cells.														
mechanical digestion	The products of fat digestion diffuse into lacteals.														
1	(b)	(i)	small intestine / duodenum ✓	1	<p>No other answers are acceptable.</p> <p>If two or more responses are provided, mark first response only.</p>										
1	(b)	(ii)	liver ✓	1	<p>No other answers are acceptable.</p> <p>If two or more responses are provided, mark first response only.</p>										
1	(b)	(iii)	gall bladder ✓	1	<p>No other answers are acceptable.</p> <p>If two or more responses are provided, mark first response only.</p>										

Question		Answer	Marks	Guidance
1	(c)	<p>Two marks for a named gallstone treatment described. One required.</p> <p>keyhole / surgery ✓ to remove the gall bladder ✓</p> <p>keyhole / surgery ✓ to remove gall stones ✓</p> <p>medication / drugs / tablets ✓ to dissolve the (gall) stones ✓</p> <p>lithotripsy / shock waves ✓ shatter gallstones / break up gallstones ✓</p>	2 (2x1)	<p>Two marks:</p> <ul style="list-style-type: none"> • a (named) treatment identified <p>AND</p> <ul style="list-style-type: none"> • description <p>One mark:</p> <ul style="list-style-type: none"> • a (named) treatment identified <p>OR</p> <ul style="list-style-type: none"> • description

Question	Answer	Marks	Guidance
1	<p>(d)*</p> <p>Level 3 (5-6 marks) Detailed description of mechanical AND chemical digestion AND linked and relevant to digestion in the stomach with clear use of terms.</p> <p><i>There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated.</i></p> <p>Level 2 (3-4 marks) Sound description of mechanical AND chemical digestion AND mostly relevant to digestion in the stomach with some use of terms.</p> <p><i>There is a line of reasoning presented with some structure. The information presented is in the most-part relevant and supported by some evidence.</i></p> <p>Level 1 (1–2 marks) Basic description of mechanical OR chemical digestion AND May not be linked to digestion in the stomach, answer may be list like.</p> <p><i>There is an attempt at a logical structure with a line of reasoning. The information is in the most part relevant.</i></p> <p>0 marks - No response worthy of credit</p>	6	<p>Mechanical digestion</p> <ul style="list-style-type: none"> • breakdown of food (must link to mechanical digestion) • large pieces into smaller pieces • physical digestion • stomach walls contract/peristalsis • stomach churns food • and mixes food with hydrochloric acid / enzymes • food is mixed with liquid in stomach • increase surface area <p>Chemical digestion</p> <ul style="list-style-type: none"> • enzymes help breakdown food • large molecules broken down • into smaller molecules • stomach has enzyme called pepsin/protease • stomach has hydrochloric acid (Stomach acid/acid alone is TV) • acid activates enzyme / pepsin • proteins broken down • digestion forms peptides • gastric lipase (bod lipase) breaks down fat <p>Relevant to either</p> <ul style="list-style-type: none"> • Chyme created <p>DO NOT CREDIT DIGESTION IN OTHER PARTS OF THE DIGESTIVE SYSTEM</p>

Question			Answer	Marks	Guidance
1	(e)	(i)	detoxification ✓	1	No other answers are acceptable. If more than one answer is given: No mark should be awarded.

Question			Answer	Marks	Guidance
1	(e)	(ii)*	<p>Level 3 (5-6 marks) Detailed discussion of how cirrhosis is monitored and lifestyle changes needed AND Answer is clearly linked and relevant to preventing further liver damage with clear use of terms.</p> <p><i>There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated.</i></p> <p>Level 2 (3-4 marks) Sound discussion of how cirrhosis is monitored and lifestyle changes needed. AND Answer is mostly relevant to preventing further liver damage with some use of terms.</p> <p><i>There is a line of reasoning presented with some structure. The information presented is in the most-part relevant and supported by some evidence.</i></p> <p>Level 1 (1–2 marks) Basic attempt at discussion of how cirrhosis is monitored OR lifestyle changes AND Answer may not be linked to preventing further liver damage and may be list like</p> <p><i>There is an attempt at a logical structure with a line of reasoning. The information is in the most part relevant.</i></p> <p>0 marks - No response worthy of credit.</p>	6	<p>Monitoring a person with cirrhosis</p> <ul style="list-style-type: none"> • regular hospital/GP appointments/check ups • visits from health care workers • blood tests/liver function test • urine tests • MRI, X-Ray, CT and ultrasound (scans alone is TV) • referrals to specialist doctors / surgeons • biopsy • monitor diet / see dietitian • monitor alcohol intake <p>Lifestyle changes to prevent further liver damage</p> <ul style="list-style-type: none"> • lose weight • aim to maintain healthy weight • diet high in vitamins and minerals/fruit and vegetables • low-fat diet/low salt diet • reduce / stop alcohol intake • exercise • reduce / stop smoking <p>DON'T ACCEPT IMPACTS ON DAILY LIFE E.G. ATTENDING AA MEETINGS</p>

Question		Answer	Marks	Guidance
1	(f)	pancreas ✓ glycogen ✓ feedback ✓ homeostasis ✓	4 (4x1)	One mark for each correct answer, four required. Answers must be in order shown here. No other answers are acceptable. If two responses given in one space, no mark even if first response correct.

Question			Answer	Marks	Guidance
2	(a)	(i)	<p>Three marks for the outline of muscle action to lower the weight. Any three marks from:</p> <p>biceps muscle relaxes ✓</p> <p>is the antagonist ✓</p> <p>triceps muscle contracts ✓</p> <p>is the agonist ✓</p> <p>muscles work in antagonistic pairs ✓</p> <p>when one muscle contracts the other relaxes ✓</p> <p>muscles can only pull / muscles cannot push ✓</p>	3	<p>Three marks for the outline of muscle action.</p> <p>Any three points from the list.</p> <p>pairs alone is TV</p>
2	(a)	(ii)	<p>Fibrous cord that attaches one bone to another bone to hold them in position ✓</p>	1	<p>No other answers are acceptable.</p> <p>If more than one answer is given: No mark should be awarded.</p>

Question			Answer	Marks	Guidance
2	(b)	(i)	<p>Any two symptoms from:</p> <ul style="list-style-type: none"> • painful/tender/aching/sore joints • stiff/reduced mobility/range of motion in joints • grating/crackling sensation/noise in joints • swollen/inflamed/ joints/hands • knobby / deformed joints 	2	<p>Any two symptoms for two marks, two required.</p> <p>Pain alone is TV Stiff alone is TV Difficulty moving alone is TV</p> <p>Pain, stiff etc must link to joint or a joint in the body e.g. hands</p> <p>Noise alone is TV</p> <p>If two points made in first line e.g. “painful and stiff joints” credit both points, but only if no answer provide on the second line</p>

Question		Answer	Marks	Guidance
2	(b) (ii)*	<p>Level 3 (7-8 marks) Detailed discussion for impacts on daily life. AND Accurate terminology is used with examples explicitly linked to the scenario and following a logical sequence. <i>There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated.</i></p> <p>Level 2 (4-6 marks) Sound discussion for impacts on daily life. AND Answers will be factually accurate and examples linked to scenario but may be implicit. <i>There is a line of reasoning presented with some structure. The information presented is in the most-part relevant and supported by some evidence.</i></p> <p>Level 1 (1–3 marks) Basic discussion for impacts. AND May be a description / identification only. Answers may be list like. <i>There is an attempt at a logical structure with a line of reasoning. The information is in the most part relevant.</i></p> <p>0 marks - No response worthy of credit</p>	8	<p>Impact of osteoarthritis on daily life</p> <p>Examples of possible impacts on lifestyle (not exhaustive): e.g., physical impacts</p> <ul style="list-style-type: none"> • tiredness – inability to get things done, complete tasks • constant pain – causing fatigue and lack of capacity for concentration on everyday tasks • swelling of e.g. hands and fingers - inability to use hands, inability to do simple tasks e.g. opening food jars • side-effects of medication <p>e.g., emotional / mental impacts</p> <ul style="list-style-type: none"> • loss of independence – feelings of powerlessness/dependence on others • frustration – shortness of temper, impatience • wait for surgery – feel life ‘on hold’ • depression – anxiety, sense of isolation • insomnia – tiredness during daytime • coping with pain – psychologically demanding, mentally draining • unable to do hobbies e.g., knitting – boredom, feelings of underachievement <p>e.g., other impacts</p> <ul style="list-style-type: none"> • need to change diet – not able to eat foods that she enjoys • inability to work – financially poorer • stop drinking/smoking – may avoid situations she associates with these activities • affects social activities • have to attend appointments • reliant on family/carers to help with tasks

Question			Answer	Marks	Guidance
2	(c)	(i)	thyroid ✓	1	No other answers are acceptable. If two or more responses are provided, mark first response only.
2	(c)	(ii)	hormone ✓	1	No other answers are acceptable. BOD thyroxine Don't credit other named hormones alone e.g. adrenalin. If two or more responses are provided, mark first response only.

Question			Answer	Marks	Guidance												
3	(a)	(i)	<p>One mark per correct answer as shown in the table.</p> <table border="1"> <thead> <tr> <th>Blood component</th> <th>Function</th> </tr> </thead> <tbody> <tr> <td>plasma</td> <td>Fluid that transports substances dissolved in water.</td> </tr> <tr> <td>Erythrocyte</td> <td>A cell that transports oxygen</td> </tr> <tr> <td>lymphocyte ✓</td> <td>A cell that produces antibodies to fight infection.</td> </tr> <tr> <td>Neutrophil</td> <td>A cell that destroys bacteria to prevent infection</td> </tr> <tr> <td>platelet ✓</td> <td>A cell fragment that has a role in blood clotting.</td> </tr> </tbody> </table>	Blood component	Function	plasma	Fluid that transports substances dissolved in water.	Erythrocyte	A cell that transports oxygen	lymphocyte ✓	A cell that produces antibodies to fight infection.	Neutrophil	A cell that destroys bacteria to prevent infection	platelet ✓	A cell fragment that has a role in blood clotting.	4 (4x1)	<p>No other answers are acceptable.</p> <p>If two responses given in one space, no mark even if first response correct.</p>
Blood component	Function																
plasma	Fluid that transports substances dissolved in water.																
Erythrocyte	A cell that transports oxygen																
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platelet ✓	A cell fragment that has a role in blood clotting.																

Question			Answer	Marks	Guidance
3	(a)	(ii)	<p>Two marks for the outline of importance of regulating temperature.</p> <p>human body needs to maintain constant body temperature of 37°C/optimum body temperature ✓</p> <p>cell/body functions will start to shut down or fail if temperature goes too high or low ✓</p> <p>enzymes become denatured/stop working as well ✓</p> <p>organ failure/damage ✓</p> <p>hypothermia/hyperthermia could develop ✓</p>	2	<p>Two marks for the outline of importance.</p> <p>One mark for the reason and second mark for why.</p> <p>Don't credit death alone</p>

Question	Answer	Marks	Guidance
3	<p>(b) (i)*</p> <p>Level 3 (5-6 marks) Detailed explanation of causes and risk factors AND Clearly linked and relevant to hypertension with clear use of terms.</p> <p><i>There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated.</i></p> <p>Level 2 (3-4 marks) Sound explanation of causes and risk factors AND Mostly relevant hypertension with some use of terms.</p> <p><i>There is a line of reasoning presented with some structure. The information presented is in the most-part relevant and supported by some evidence.</i></p> <p>Level 1 (1–2 marks) Basic explanation of causes OR risk factors AND May not be linked to hypertension and answer may be list like.</p> <p><i>There is an attempt at a logical structure with a line of reasoning. The information is in the most part relevant</i></p> <p>0 marks - No response worthy of credit.</p>	6	<p>Causes</p> <ul style="list-style-type: none"> • systolic pressure increases • force of blood against artery walls increases • resistance to blood flow in vessels increases • diastolic pressure increases • narrow arteries resist blood flow • blood pressure 140/90 <p>Risk factors</p> <ul style="list-style-type: none"> • Age - risk increases as you age • Race- common among people of African heritage • Family history / genetics – high blood pressure tends to run in families. • Being overweight or obese – the more blood you need to supply oxygen and nutrients to your tissues. As the volume of blood in blood vessels increases, so does the pressure on artery walls. • Physically inactive- inactivity leads to higher heart rates and stronger force on arteries. • Smoking – Immediate rise in pressure. Chemicals in tobacco can damage the lining of artery walls. • High salt diet -body retains fluid • High fat diet/cholesterol – narrow arteries • High alcohol intake – causes blood vessels to constrict • Drug abuse – immediate rise in blood pressure • Stress – temporary increase in blood pressure. • Certain conditions – e.g. kidney disease and diabetes <p>If they list several risk factors with no development and no causes 1 mark</p> <p>If they list at least one risk factor and cause with no development 2 marks</p>

Question			Answer	Marks	Guidance
3	(b)	(ii)	Any one treatment from: <ul style="list-style-type: none">• medication to reduce blood pressure• medication to slow heart rate• ACE inhibitors• beta blockers• calcium channel blockers• diuretics• nitrates• statins	1	Any one treatment for one mark. Do not accept lifestyle changes e.g. reduce alcohol intake Medication alone is TV

Question		Answer	Marks	Guidance
4	(a)	flat ✓ contract ✓ volume ✓ pleural membranes ✓	4 (4x1)	One mark for each correct answer, four required. Answers must be in order shown here. No other answers are acceptable. If two responses given in one space, no mark even if first response correct.
4	(b)	(i) glucose ✓	1	ALLOW chemical formula $C_6H_{12}O_6$ If two or more responses are provided, mark first response only.
4	(b)	(ii) carbon dioxide ✓	1	ALLOW chemical formula CO_2 If two or more responses are provided, mark first response only.
4	(b)	(iii) provides energy for cells / reactions / metabolism ✓	1	energy alone is TV
4	(b)	(iv) One mark for a difference, two required. Any two marks from: less ATP / energy from anaerobic / more from aerobic ✓ anaerobic produces lactic acid ✓ anaerobic doesn't need oxygen / aerobic needs oxygen ✓ takes place in different part of cell e.g. aerobic in mitochondria ✓ aerobic produces carbon dioxide as a waste product	2	One mark for a difference, two required. The number of ticks must match the number of marks awarded. For incorrect answers use the cross or appropriate annotation from the following:

Question	Answer	Marks	Guidance
4	<p>(c)*</p> <p>Level 3 (5-6 marks) Detailed explanation of causes and effects AND Clearly linked and relevant to cystic fibrosis with clear use of terms.</p> <p><i>There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated.</i></p> <p>Level 2 (3-4 marks) Sound explanation of causes and effects AND Mostly relevant to cystic fibrosis with some use of terms</p> <p><i>There is a line of reasoning presented with some structure. The information presented is in the most-part relevant and supported by some evidence.</i></p> <p>Level 1 (1–2 marks) Basic explanation of causes OR effects AND May not be linked to cystic fibrosis and may be list like.</p> <p><i>There is an attempt at a logical structure with a line of reasoning. The information is in the most part relevant.</i></p> <p>0 marks - No response worthy of credit.</p>	6	<p>Causes</p> <ul style="list-style-type: none"> • genetic / inherited • mutated / faulty copy of gene / allele • parent carriers of faulty copy • gene / allele is recessive • child has two faulty copies of gene / allele • faulty protein produced • prevents water from being drawn back into the mucus making it <u>thick / sticky</u> <p>Effects</p> <ul style="list-style-type: none"> • mucus produced is thicker than normal • mucus builds up in lungs • lung problems / infections / coughing / wheezing / breathlessness • digestive problems e.g. malnutrition • bowel obstructions • bowel issues e.g. constipation/diarrhoea • jaundice • infertility • fatigue • respiratory failure • struggle to gain weight • blocked pancreatic duct • mental health issues • shortened life expectancy • develop other medical issues e.g osteoporosis

Question			Answer	Marks	Guidance										
4	(d)	(i)	One mark for each correct answer, four required.	4	<p>No other answers are acceptable.</p> <p>If more than one answer letter is given: No mark should be awarded.</p>										
			<table border="1"> <thead> <tr> <th>Structure</th> <th>Letter on diagram</th> </tr> </thead> <tbody> <tr> <td>calyx</td> <td>C</td> </tr> <tr> <td>cortex</td> <td>A</td> </tr> <tr> <td>medulla</td> <td>B</td> </tr> <tr> <td>ureter</td> <td>D</td> </tr> </tbody> </table>			Structure	Letter on diagram	calyx	C	cortex	A	medulla	B	ureter	D
			Structure			Letter on diagram									
			calyx			C									
			cortex			A									
medulla	B														
ureter	D														
4	(d)	(ii)	secretes / releases / makes adrenaline ✓	1	<p>ALLOW has endocrine function</p> <p>Adrenaline alone if TV</p>										

Question		Answer	Marks	Guidance
4	(e)	<p>Two marks for a function described. Two functions required.</p> <p>Functions of kidney nephron:</p> <ul style="list-style-type: none"> osmoregulation <p>Description:</p> <ul style="list-style-type: none"> maintains water balance in the body controls water potential of blood plasma <p>Functions of kidney nephron:</p> <ul style="list-style-type: none"> excretion <p>Description:</p> <ul style="list-style-type: none"> molecules such as urea / toxins / waste products are removed (from blood) <p>Functions of kidney nephron:</p> <ul style="list-style-type: none"> ultrafiltration <p>Description:</p> <ul style="list-style-type: none"> blood flowing through capillaries / glomerulus is filtered. <p>Functions of kidney nephron:</p> <ul style="list-style-type: none"> selective reabsorption <p>Description:</p> <ul style="list-style-type: none"> molecules such as (glucose) needed by the body are taken back into blood 	4 (2x2)	<p>Up to 2 marks for each function described.</p> <p>2 marks: A function identified with a description that shows understanding</p> <p>1 mark: A function identified with little or no description.</p> <p>OR</p> <p>Process described, without naming function</p> <p>Filters blood / waste alone is TV</p> <p>Reabsorption / filtration alone is TV</p>

Question	Answer	Marks	Guidance
4 (f)*	<p>Level 3 (5-6 marks) Detailed evaluation with for and against statements for two treatments AND Clearly linked and relevant to nephrotic syndrome and clear use of terms.</p> <p><i>There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated.</i></p> <p>Level 2 (3-4 marks) Sound evaluation with attempt at both for and against statements for one treatment AND Mostly relevant to nephrotic syndrome and some use of terms.</p> <p><i>There is a line of reasoning presented with some structure. The information presented is in the most part relevant and supported by some evidence.</i></p> <p>Level 1 (1–2 marks) Basic attempt at evaluation with for OR against statements AND May not be linked to nephrotic syndrome and may be list like.</p> <p><i>There is an attempt at a logical structure with a line of reasoning. The information is in the most part relevant.</i></p> <p>0 marks - No response worthy of credit.</p>	6	<p>Treatments (not exhaustive):</p> <ul style="list-style-type: none"> • Anticoagulants • Diuretics • ACE inhibitors • Immunosuppressant drugs • Dialysis • Kidney transplant (BOD kidney removal) • Steroids <p>ONLY CREDIT FIRST TWO TREATMENTS IDENTIFIED</p> <p>DO NOT CREDIT “REDUCE THE EFFECTS OF NEPHROTIC SYNDROME” AS A POSITIVE</p> <p>SIDE EFFECTS ALONE IS TV</p> <p>One treatment with positive and negative 3 marks</p> <p>One treatment with positive and negative and another treatment with either positive or negatives 4 marks</p>

Treatment	Positives	Negatives
Anticoagulants	<ul style="list-style-type: none"> prevent blood clots easy to use 	<ul style="list-style-type: none"> risk of nosebleeds / heavy periods in women long term use collecting prescriptions costs of prescriptions
Diuretics	<ul style="list-style-type: none"> reduce water retention easy to use 	<ul style="list-style-type: none"> may cause headaches / thirst bed wetting / constantly going to the toilet long term use collecting prescriptions costs of prescriptions
ACE inhibitors	<ul style="list-style-type: none"> reduce blood pressure caused by fluid imbalance. easy to use 	<ul style="list-style-type: none"> may lower blood pressure too much / dizziness collecting prescriptions costs of prescriptions
Immunosuppressant drugs	<ul style="list-style-type: none"> reduce immune response Easy to use 	<ul style="list-style-type: none"> increased risk of infection collecting prescriptions costs of prescriptions
Dialysis	<ul style="list-style-type: none"> removes waste from blood / enables patient to live whilst awaiting transplant / substitute for normal kidney 	<ul style="list-style-type: none"> continued visits to hospital / need for machinery in the home Time consuming Low blood pressure / dizziness
Kidney transplant	<ul style="list-style-type: none"> no longer needs dialysis / enables patient to live active normal life kidney function is improves / has a healthy kidney stops protein being lost 	<ul style="list-style-type: none"> need to find tissue match / donor availability need to use anti-rejection drugs Major operation Long recovery Scars
Steroids	<ul style="list-style-type: none"> reduces immune response and inflammation reduces protein loss 	<ul style="list-style-type: none"> weight gain long term use risk of infection

Question		Answer	Marks	Guidance										
5	(a)	<table border="1"> <thead> <tr> <th>Statement</th> <th>True (T) or False (F)</th> </tr> </thead> <tbody> <tr> <td>Semi-circular canals have a role in maintaining balance.</td> <td>True / T</td> </tr> <tr> <td>The cochlea is one of three bones that transmit vibrations through the middle ear.</td> <td>False / F</td> </tr> <tr> <td>The Eustachian tube makes sure that pressure in the middle ear is the same as that in the atmosphere.</td> <td>True / T</td> </tr> <tr> <td>The pinna or external ear channels sound waves towards the ear drum.</td> <td>True / T</td> </tr> </tbody> </table>	Statement	True (T) or False (F)	Semi-circular canals have a role in maintaining balance.	True / T	The cochlea is one of three bones that transmit vibrations through the middle ear.	False / F	The Eustachian tube makes sure that pressure in the middle ear is the same as that in the atmosphere.	True / T	The pinna or external ear channels sound waves towards the ear drum.	True / T	4	<p>No other answers are acceptable.</p> <p>If more than one answer is given e.g. T/F: No mark should be awarded.</p>
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Question	Answer	Marks	Guidance
5 (b)*	<p>Level 3 (7-8 marks) Detailed explanation for care needs and impacts linked to deafness. AND Accurate terminology and following a logical sequence with examples clearly linked to scenario</p> <p><i>There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated.</i></p> <p>Level 2 (4-6 marks) Sound explanation for care needs and impacts linked to deafness. AND Answers will be factually accurate and examples given.</p> <p><i>There is a line of reasoning presented with some structure. The information presented is in the most-part relevant and supported by some evidence.</i></p> <p>Level 1 (1–3 marks) Basic explanation of care needs or impacts linked to deafness. AND Answers may be list like, with few examples given</p> <p><i>There is an attempt at a logical structure with a line of reasoning. The information is in the most part relevant.</i></p> <p>0 marks - No response worthy of credit.</p>	8	<p>Care needs and impact of hearing loss on lifestyle</p> <p>Examples of possible care needs on lifestyle (not exhaustive):</p> <ul style="list-style-type: none"> • regular monitoring of hearing loss/audiology assessments/check ups • need to wear and maintain hearing aids eg regular charging of aids or changing of batteries • may need advice regarding hearing aids • care needs as follow up to surgery e.g. for implants • support in learning sign language • support in learning lip reading • support with household aids e.g. TV / computers • need for assistive technology e.g. for home / workplace • therapy/emotional support • interpreter / translator / advocate to help communicate needs • carer / family to help meet needs <p>Examples of possible impacts on lifestyle (not exhaustive):</p> <ul style="list-style-type: none"> • loss of independence due to communication issues • frustration as can no longer take part in conversation or listen to music / radio • reduction in social activities • mental health issues e.g. depression • coping with loneliness due to difficulties with joining in conversation • inability to work or to do same job due to the need for special / adapted work place • reliant on family to help with tasks e.g. telephone calls

Question			Answer	Marks	Guidance
5	(c)	(i)	meninges ✓	1	No other answers are acceptable. If more than one answer is given no mark should be awarded.
5	(c)	(ii)	corpus callosum ✓	1	No other answers are acceptable. If more than one answer is given no mark should be awarded.
5	(c)	(iii)	cerebellum ✓	1	No other answers are acceptable. If more than one answer is given no mark should be awarded.
5	(c)	(iv)	meninges ✓	1	No other answers are acceptable. If more than one answer is given no mark should be awarded.

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