

Health and Social Care

Advanced GCE

Unit **F921**: Anatomy and Physiology in Practice

Mark Scheme for January 2013

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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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Annotations

Annotation	Meaning
	Positive
	Negative
	Benefit of doubt
	Cross
	Level 1
	Level 2
	Level 3
	Level 4
	Repeat
	Noted but no credit given
	Too vague
	Tick
	Development of point
	Omission mark

Question		Answer	Marks	Guidance	
				Content	Levels of response
1	(a)	<p>One mark for each structure identified, SIX required</p> <ol style="list-style-type: none">1. ovary2. uterus/myometrium /womb/endometrium3. fallopian tube/oviduct4. fibrillated end of fallopian tube/funnel end/fimbria5. cervix/cervical opening/os6. vagina	6		

Question		Answer	Marks	Guidance	
				Content	Levels of response
1	(b)	<p>Ovary</p> <ul style="list-style-type: none"> • production of eggs • hormone secretion • produce the corpus leutum <p>Uterus</p> <ul style="list-style-type: none"> • accept a fertilized ovum which becomes implanted • site for development of an embryo/ development of a fetus • expansion during pregnancy • contracts during birth <p>Vagina</p> <ul style="list-style-type: none"> • provides the route to deliver the baby from the uterus • provides a path for menstrual blood and tissue to leave the body • self-lubrication, reducing friction during sexual activity • accepts penis <p>Fallopian tubes</p> <ul style="list-style-type: none"> • carries the egg from the ovary to the womb • it is to deliver the eggs to the uterus • nourish the egg • lubricate it's path <p>Cervix</p> <ul style="list-style-type: none"> • allows the passage of menstrual fluid • promotes fertility • protects the uterus, upper reproductive tract, and a developing foetus from pathogens 	6	<p>Answers may not be complete sentences.</p> <p>Accept any other valid response.</p>	<p>Level 2 (4–6 Marks) Candidates will provide a developed description that includes accurate terminology. Description of the functions will be accurate. There will be few, if any, errors of grammar, punctuation and spelling.</p> <p>Level 1 (0–3 Marks) Candidates will provide a simple description. Their use of appropriate terminology will be limited. Description of the functions may be limited. Sentences and paragraphs have limited coherence and structure, with little relevance to the main focus of the question. Errors of spelling, punctuation and grammar may be noticeable and intrusive.</p>

Question		Answer	Marks	Content	Guidance
					Levels of response
1	(c)	<ul style="list-style-type: none"> the menstrual cycle may be divided into different phases, and the length of each phase varies from woman to woman and cycle to cycle (25–35 days) FSH - development of follicles one becomes dominant oestrogen - repair/rebuild lining and stimulates production of LH LH - starts ovulation, stimulates production of progesterone Progesterone - prepares/ maintain wall of uterus, released by corpus luteum during the follicular phase the lining of the uterus thickens, stimulated by gradually increasing amounts of oestrogen an egg that is fertilized by a sperm will become a zygote, taking one to two weeks to travel down the fallopian tubes to the uterus if the egg is not fertilised within about a day of ovulation, it will die and be absorbed by the woman's body if implantation does not occur within approximately two weeks, the corpus luteum will die, causing sharp drops in levels of both progesterone and oestrogen these hormone drops cause the uterus to shed its lining in a process termed menstruation 	8	<p>Level 3 Fully developed description. Includes accurate terminology. Effects will be accurate and well developed. High QWC.</p> <p>Level 2 Developed description. Includes accurate terminology. Effects will be accurate. Mid-QWC.</p> <p>Level 1 Simple description. Limited appropriate terminology. Effects may be limited. Low QWC.</p> <p>Accept any other valid response.</p>	<p>Level 3 (7–8 Marks) Candidates will provide a fully developed description that includes accurate terminology. Description of effects will be accurate and well developed. Sentences and paragraphs are for the most part relevant and material will be presented in a balanced, logical and coherent manner that addresses the question. There will be few, if any, errors in the use of grammar, punctuation and spelling.</p> <p>Level 2 (4–6 Marks) Candidates will provide a developed description that includes accurate terminology. Description of effects will be accurate. Sentences and paragraphs will not always be relevant and material will be presented in a way that does not always address the question. There may be some errors of grammar, punctuation and spelling.</p> <p>Level 1 (0–3 Marks) Candidates will provide a simple description. Their use of appropriate terminology will be limited. Description of effects may be limited. Sentences and paragraphs have limited coherence and structure, with little relevance to the main focus of the question. Errors in the use of grammar, punctuation and spelling may be noticeable and obtrusive.</p>

Question		Answer	Marks	Guidance	
				Content	Levels of response
2	(a)	<p>One mark for each principle, TWO required for each</p> <p>Steroids</p> <ul style="list-style-type: none"> • corticosteroids (steroids) are used to reduce inflammation • reduce mucus production in the airways of the lungs • they also reduce the swelling and narrowing of the airways • they help other quick-relief medicines work better <p>Antibiotics</p> <ul style="list-style-type: none"> • an antibiotic inhibits or abolishes the growth of micro-organisms • such as bacteria, fungi, or protozoa • they are used to treat secondary infections • they have no effect on viruses eg influenza • course needs to be completed • candidates may make reference to broad (wide) spectrum principals/different types/increasing resistance 	4	Responses can be a simple description.	Accept any other valid response.

Question		Answer	Marks	Guidance	
				Content	Levels of response
2	(b)	<p>Asthma (causes and triggers)</p> <ul style="list-style-type: none"> • infections such as colds and flu • irritants such as dust, cigarette smoke, fumes • chemicals found in the workplace – this is called occupational asthma • allergies to pollen, medicines, animals, house dust mite or certain foods • exercise – especially in cold, dry air • emotions – laughing or crying very hard can trigger symptoms, as can stress • hereditary causes <p>Bronchitis/COPD/Emphysema</p> <ul style="list-style-type: none"> • the infection which causes bronchitis can be the result of a virus or bacteria, although viral bronchitis is much more common • in most cases, bronchitis is caused by the same viruses that cause the common cold, or influenza (flu) • viruses are spread through direct contact or through tiny airborne droplets of liquid, passed on through coughing and sneezing • bronchitis can be triggered by breathing in irritant substances, such as smog, chemicals in household products or tobacco smoke • smoking is the main cause of chronic bronchitis; it can affect those who inhale second-hand smoke • materials that can damage lungs, eg grains or textiles, ammonia, strong acids, or chlorine • this is referred to as occupational bronchitis, and usually eases once you are no longer exposed to the irritant substance 	6	<p>Level 2 Developed description. Includes accurate terminology. Causes will be accurate. High QWC.</p> <p>Level 1 Simple description. Limited use of appropriate terminology. Limited causes. Low QWC.</p> <p>Accept any other valid response.</p>	<p>Level 2 (4–6 Marks) Candidates will provide a developed description of the causes of the dysfunction that includes accurate terminology. Sentences and paragraphs will not always be relevant and material will be presented in a way that does not always address the question. There will be few, if any, errors of grammar, punctuation and spelling.</p> <p>Level 1 (0–3 Marks) Candidates will provide a description/ identification of the causes of the dysfunction. Their use of appropriate terminology will be limited and answers may be list like. Sentences and paragraphs have limited coherence and structure, with little relevance to the main focus of the question. Errors in the use of grammar, punctuation and spelling may be noticeable and intrusive.</p>

Question			Answer	Marks	Guidance	
					Content	Levels of response
			<p>Cystic Fibrosis</p> <ul style="list-style-type: none"> • cystic fibrosis is caused by a defect in a gene called the cystic fibrosis transmembrane conductance regulator (CFTR) gene • this recessive gene makes an (abnormal) protein that controls the movement of salt and water in and out of the cells in your body • in people with CF, the gene does not work effectively • this causes the thick, sticky mucus and very salty sweat that are the main features of CF • hereditary patterns of inheritance 			

Question		Answer	Marks	Content	Guidance
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2	(c)	<p>Chest X-Ray</p> <ul style="list-style-type: none"> • chest x ray is a procedure used to evaluate organs and structures within the chest for symptoms of disease • chest x rays include views of the lungs, heart, small portions of the gastrointestinal tract, thyroid gland, the bones of the chest area • they can show infection, change in structure and evidence of previous disease processes <p>Cat Scan/MRI</p> <ul style="list-style-type: none"> • it provides detailed, cross-sectional views of all types of tissue • the preferred method for diagnosing many different cancers and other chronic changes in the lung • it allows a physician to confirm the presence of tissue change and measure its size, precise location and the extent of the involvement with other nearby tissue • invaluable in diagnosing and the treatment of vascular diseases in the chest that can lead to more serious problems <p>Blood/sputum testing</p> <ul style="list-style-type: none"> • blood tests help doctors check for certain diseases and conditions • they help check the function of your organs and show how well treatments are working • a sample of blood taken from an artery (arterial blood gas) can show low levels of oxygen (hypoxemia) and high levels of carbon dioxide (respiratory acidosis) • white blood cell count (wbc) • this test measures the number of white blood cells in a drop (micro litre) of blood 	10	<p>Level 3 Fully developed description. Accurate terminology. Accurate and well-developed techniques and information. High QWC.</p> <p>Level 2 Developed description. Accurate terminology. Accurate techniques and information. Mid-QWC.</p> <p>Level 1 Simple description. Limited appropriate terminology. Limited techniques and/or information. Low QWC.</p> <p>Candidates will relate tests to their chosen dysfunction.</p> <p>Accept any other valid response.</p>	<p>Level 3 (9–10 Marks) Candidates will provide a detailed description of at least two techniques that include accurate terminology. Description of the techniques and information provided will be accurate and well-developed. Sentences and paragraphs are for the most part relevant and material will be presented in a balanced, logical and coherent manner that addresses the question. There will be few, if any, errors in the use of grammar, punctuation and spelling.</p> <p>Level 2 (5–8 Marks) Candidates will provide a description of two techniques that include appropriate terminology. Description of techniques and information provided will be accurate. Sentences and paragraphs will not always be relevant and material will be presented in a way that does not always address the question. There may be some errors of grammar, punctuation and spelling. <i>Sub max of 5 marks for one technique done well.</i></p> <p>Level 1 (0–4 Marks) Candidates will identify the techniques and/or information provided. Their use of appropriate terminology will be limited. Sentences and paragraphs have limited coherence and structure, with little relevance to the main focus of the question. Errors in the use of grammar, punctuation and spelling may be noticeable and obtrusive.</p>

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		<ul style="list-style-type: none"> • a low wbc may be due to a viral infection, a toxic reaction that is limiting production of normal wbcs • a high wbc count may indicate infection • an increased risk of infection occurs once the wbc drops • analysis of the coughed-up phlegm can tell doctors which germ caused the infection <p>Peak Flow</p> <ul style="list-style-type: none"> • peak flow can measure the maximum rate of air someone can blow during the first second or so of expiration • by checking what an individual's 'personal best' peak flow is during times of no symptoms • the decrease in peak flow during an asthma attack can be identified and monitored • when the peak flow drops significantly, concern about the asthma rises • conversely, a peak flow which remains at a high level helps in reassuring that the asthma is under control and perhaps any medications being used may be decreased • peak flow can help when asthma is getting worse and may show changes before you feel them • it can allow the doctor to adjust the treatment to prevent emergency hospitalisations peak flow meter may help the doctor identify causes of your asthma at work, home or play • it can help to determine what might be triggering asthma peak flow meter can also be used during an asthma episode 			

Question			Answer	Marks	Guidance	
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			<p>CF and general</p> <ul style="list-style-type: none"> • it can help you determine the severity of the episode and if further medication is required • clinical examination/observation • sweat test and genetic testing for cystic fibrosis • the clinician can assess a patient by observing the following • temperature • respirations • blood pressure • and the general look of the patient and how they are behaving and reacting to stimulus • allergy test to define triggers 			

Question		Answer	Marks	Guidance	
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3	(a)	<p>One mark for each description, TWO required for each</p> <p>Gall Bladder Function:</p> <ul style="list-style-type: none"> • stores about 50ml of bile • releases bile when food containing fat enters the digestive tract • contracts to release bile • stores some waste products <p>Liver Function:</p> <ul style="list-style-type: none"> • glycogen storage • plasma protein synthesis • detoxification • produces bile • produce salts that emulsify fats • alkaline salts • processes alcohol • processes drugs <p>Large Intestine Function:</p> <ul style="list-style-type: none"> • food pushed through the large intestine by a process of muscular-wavelike contractions / peristalsis • absorb the remaining water • stores these unusable food matter • compacting the faeces • functions with help from bacterial flora. • bacteria, producing vitamin 	12	Answers may not be complete sentences and can be a description.	Accept any other valid response.

Question		Answer	Marks	Guidance	
				Content	Levels of response
		<p>Pancreas Function: Production of :</p> <ul style="list-style-type: none"> • pancreatic juices • insulin • pancreatic enzymes • glucagon • somatostatin • pancreatic polypeptide • trypsinogen • pancreatic lipase • water • alkaline salts • sodium bicarbonate • protein digesting enzymes • carbohydrate digesting enzymes <p>• release of any of the above</p> <p>Small Intestine Function:</p> <ul style="list-style-type: none"> • It is where the vast majority of digestion takes place • food pushed through the small intestine by a process of muscular-wavelike contractions called peristalsis • most of the nutrients from ingested food are absorbed • digestion of proteins into peptides and amino acids • lipids (fats) are degraded into fatty acids and glycerol 			

Question		Answer	Marks	Guidance	
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		<ul style="list-style-type: none"> • carbohydrates are degraded into simple sugars • enzyme production • enzyme release • bile emulsifies fats • absorbed by villi <p>Stomach Function:</p> <ul style="list-style-type: none"> • break down large molecules (such as from food) to smaller ones • churn • secrete gastric acid /HCl • pepsinogen is secreted • some ions absorbed • water • some lipid soluble compounds such as alcohol • aspirin • caffeine • digestion of proteins into polypeptides • production of chyme 			

Question		Answer	Marks	Content	Guidance
					Levels of response
3	(b)	<p>Dysfunctions include:</p> <p>Diabetes: blood tests, clinical observation IBS: clinical observation, endoscopy to rule out other issues, biopsy Gastric Ulcers: barium studies, endoscopy, biopsy, blood tests Duodenal Ulcers: barium studies, endoscopy, biopsy Gall stones: ERCP, cholecystogram, ultrasound Coeliac disease: endoscopy, biopsy, blood tests</p> <p>Diagnoses Barium swallow/meal/follow through When the test is about to begin, they have:</p> <ul style="list-style-type: none"> • an injection to relax the muscles of your digestive system • a white liquid to drink • the white liquid is the barium meal • the barium sulphate liquid and shows up on the x-rays • after you've drunk the barium, on the x-ray table • the doctor will watch on an x-ray screen as the barium passes through the stomach and duodenum • any growths or ulcers will show up on the screen • the couch will be tipped into different positions during the test to make the barium flow where the doctor wants it to go 	8	<p>Level 3 Fully developed explanation. Accurate terminology. Accurate, well-developed identification and diagnosis. High QWC.</p> <p>Level 2 Sound explanation. Accurate terminology. Accurate identification and diagnosis. Mid-QWC.</p> <p>Level 1 Basic description. Limited use of terminology. Limited identification and diagnosis. Low-QWC.</p> <p>Accept any other valid response or any other appropriate dysfunction, test or observation.</p>	<p>Level 3 (7–8 Marks) Candidates will provide a fully developed explanation that includes accurate terminology and follows a logical sequence. Answer is supported by use of accurate identification of one dysfunction and how it can be diagnosed. Sentences and paragraphs are relevant with accurate use of appropriate terminology. There will be few, if any errors of grammar, punctuation and spelling.</p> <p>Level 2 (4–6 Marks) Candidates will provide an explanation that includes accurate terminology. Identification and description of the diagnosis will be accurate. Sentences and paragraphs are generally relevant but may have minor inaccuracies or lack clarity and depth of understanding. There may be some errors of grammar, punctuation and spelling.</p> <p>Level 1 (0–3 Marks) Candidates will provide a description/identification of one dysfunction and a simple description/identification of the diagnosis. Their use of appropriate terminology will be limited. Description of diagnosis may be limited. Sentences and paragraphs are not always relevant, with the material presented in a way that does not always address the question. Errors of grammar, punctuation and spelling may be</p>

Question			Answer	Marks	Content	Guidance
						Levels of response
			<p>Barium enema</p> <ul style="list-style-type: none"> • barium is a white liquid which shows up on x-rays • a mixture of barium and water is passed into the rectum in the same way as the bowel washout • patient is asked to try to hold the liquid in the rectum this time until all the x-rays have been taken • the barium passes through the bowel and shows up any lumps or swellings • the doctor can watch on an x-ray screen <p>Endoscopy (Gastroscopy or colonoscopy)</p> <ul style="list-style-type: none"> • an endoscope is a long fibre optic tube with a light and camera inside at the top end • the endoscope tube can be swallowed - this allows the doctor to look at the inside of the gullet (oesophagus), stomach and the first part of the small bowel (the duodenum) • the end of the scope is adjusted in any direction by the user and can be directed around bends and corners • the doctor will take biopsies of any abnormal looking areas • and can diathermy lesions or polyps <p>For colonoscopy</p> <ul style="list-style-type: none"> • the scope is inserted through the anus • and from here the large bowel can be observed the same principle apply as above 			noticeable and intrusive.

Question		Answer	Marks	Guidance	
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		<p>Cholecystogram</p> <ul style="list-style-type: none"> • the night before the x-rays 6 tablets are swallowed that contain the contrast medium • at the hospital x-rays are taken in various positions • the gallbladder can also be seen with a fluoroscope (a type of x-ray that projects the image onto a tv-like monitor) • patient is asked to drink a high-fat formula that will cause the gallbladder to contract • this releases some bile • x-ray images will then be taken at timed intervals • shows position, size and type of stone • and helps in the planning of their removal <p>ERCP</p> <ul style="list-style-type: none"> • during ERCP the doctor will pass an endoscope through your mouth, oesophagus and stomach into the duodenum (first part of the small intestine) • an endoscope is a thin, flexible tube that lets the doctor see inside your bowels • after your doctor sees the common opening to ducts from the liver and pancreas • the doctor will pass a narrow plastic tube called a catheter through the endoscope and into the ducts • the doctor will inject a contrast material (dye) into the pancreatic or biliary ducts and will take x-rays 			

Question		Answer	Marks	Guidance	
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		<p>Blood test</p> <ul style="list-style-type: none"> • markers are chemical substances that can show up in the blood stream in some types of cancer • the marker CEA (carcinoembryonic antigen) sometimes shows up in stomach cancer, as well as other cancers • half the people with stomach cancer do not have a raised cea level in their blood • helicobacter pylori is detectable in blood samples <p>Clinical observation of symptoms</p> <ul style="list-style-type: none"> • pain • nausea, vomiting • haematemesis • occult blood pr • high temperature in association • diarrhoea • constipation <p>Blood testing</p> <ul style="list-style-type: none"> • coeliac disease produces endomysial antibodies(EMA) and tissue • transglutaminase antibodies (tTGA) when glutenis ingested • glucose test for diabetes <p>Biopsy</p> <ul style="list-style-type: none"> • small bowel biopsy is the gold standard for diagnosis of coeliac disease 			

Question			Answer	Marks	Guidance	
					Content	Levels of response
			<p><i>Diagnosis from clinical symptoms: may include the following as appropriate</i></p> <ul style="list-style-type: none"> • indigestion • abdominal (stomach) pain • bloating • changes in bowel habit, such as episodes of diarrhoea or constipation • anaemia • tiredness • breathlessness • an irregular heartbeat, caused by a lack of iron in the blood • loss of appetite • weight loss • tingling and numbness in your hands and feet (neuropathy) • vomiting (usually only affects children) • some loss of hair (alopecia, usually only affects adults) 			

Question		Answer	Marks	Content	Guidance
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4	(a)	<p>Dysfunctions may include:</p> <ul style="list-style-type: none"> • arthritis/rheumatoid/osteoarthritis • osteoporosis • Parkinson's disease • Alzheimer's • multiple sclerosis • stroke <p>Diagnosis for Parkinson's / Alzheimer's / Stroke / MS</p> <ul style="list-style-type: none"> • neurological examination to evaluate a patient • medical history and a physical examination • MRI and CAT scans of the brain of people with Parkinson's disease appear normal. • neurological examination to evaluate a patient medical history and a physical examination • MRI and CAT scans can show whether there is any damage or scarring of the myelin • lumbar puncture for abnormal cells • memory tests • mobility function tests • blood test for antibodies / antigens • blood chemical tests • clinical observation <p>Arthritis</p> <ul style="list-style-type: none"> • plain x-rays • CAT • MRI scanning • blood tests • clinical observation 	6	<p>Level 2 Developed description. Accurate terminology. Accurate identification and description. High QWC.</p> <p>Level 1 Basic description. Limited use of terminology. Limited identification and description. Low-QWC.</p> <p>Accept any other valid response.</p>	<p>Level 2 (4–6 Marks) Candidates will provide a developed description that includes accurate terminology. Identification and description of the diagnosis will be accurate. Sentences and paragraphs are generally relevant but may have minor inaccuracies or lack clarity and depth of understanding. There will be few, if any, errors of grammar, punctuation and spelling.</p> <p>Level 1 (0–3 Marks) Candidates will provide an identification of one dysfunction and a simple description of the diagnosis. Their use of appropriate terminology will be limited. Description of diagnosis may be limited. Sentences and paragraphs are not always relevant, with the material presented in a way that does not always address the question. There may be noticeable errors of grammar, punctuation and spelling.</p>

Question			Answer	Marks	Guidance	
					Content	Levels of response
			Osteoporosis <ul style="list-style-type: none">• bone densitometry• x-ray• CAT scan• blood test			

Question		Answer	Marks	Content	Guidance
					Levels of response
4	(b)	<p>Daily Living routines Difficulty with:</p> <ul style="list-style-type: none"> • getting in and out of bed • washing • preparing food • eating • accessing buildings • stairs • general mobility • any aspect of interruption to family life • socialising <p>Work Difficulty with:</p> <ul style="list-style-type: none"> • finding suitable employment • maintaining that employment • mobility whilst at work • acceptance and support by employer <p>Social Difficulty with:</p> <ul style="list-style-type: none"> • accessing public facilities • shops • cinema • theatre • holidays • public transport • discrimination <p>Medical Appointments</p> <ul style="list-style-type: none"> • increased frequency • painful treatments and • surgical procedures • side effects from drug therapy 	9	<p>Level 3 Fully developed description. Accurate terminology. Accurate and well-developed effects and changes. High QWC.</p> <p>Level 2 Sound description. Accurate terminology. Accurate effects and changes. Mid-QWC.</p> <p>Level 1 Basic description. Limited terminology. Limited effects and changes. Low QWC.</p> <p>Accept any other valid response and any other valid lifestyle variation</p>	<p>Level 3 (8–9 Marks) Candidates will provide a fully developed description of at least two effects of how a named dysfunction could affect lifestyle. This will include accurate terminology and follows a logical sequence. Answer is supported by use of accurate description of lifestyle changes. Sentences and paragraphs are relevant with accurate use of appropriate terminology. There will be few, if any, errors of grammar, punctuation and spelling.</p> <p>Level 2 (5–7 Marks) Candidates will provide a description of two effects on the lifestyle changes of a named dysfunction. The description of the lifestyle changes will be accurate. Sentences and paragraphs are generally relevant but may have minor inaccuracies or lack clarity and depth of understanding. There may be some errors of grammar, punctuation and spelling. <i>Sub-max of 5 marks for one effect described fully.</i></p> <p>Level 1 (0–4 Marks) Candidates will identify/describe the lifestyle changes of a named dysfunction in a limited manner. Their use of appropriate terminology will be limited. Sentences and paragraphs are not always relevant, with the material presented in a way that does not always address the question. Errors of grammar, punctuation and spelling may be noticeable and intrusive.</p>

Question		Answer	Marks	Content	Guidance
					Levels of response
4	(c)	<p>Arthritis Treated by NSAID's steroids and surgical intervention eg:</p> <ul style="list-style-type: none"> • joint replacement • arthrodesis • injections of gold salts • physiotherapy • acupuncture • gentle exercise <p>Osteoporosis Treatment includes:</p> <ul style="list-style-type: none"> • HRT • vitamin D/calcium supplements • calcitonin injections may help • preventative lifestyle changes prove most effective when started young • gentle exercise • physiotherapy • joint replacement in the event of damage <p>Parkinson's Treatments include:</p> <ul style="list-style-type: none"> • levodopa and carbidopa to decrease tremors and rigidity • surgical grafting of dopamine secreting neurones or surgery to destroy certain nerve pathways (ablation) • use of canaboids to reduce symptoms • psychological support • physiotherapy • stem cell treatment • gentle exercise 	5	<p>Level 2 Developed description. Accurate terminology. Accurate causes. High QWC.</p> <p>Level 1 Basic description. Limited terminology. Limited causes. Low QWC.</p> <p>Accept any other valid response and any other valid biological, chemical treatment or complementary therapy.</p>	<p>Level 2 (4–5 marks) Candidates will provide a developed description that includes accurate terminology. The description of the treatment will be accurate. Sentences and paragraphs are generally relevant but may have minor inaccuracies or lack clarity and depth of understanding. There may be noticeable errors of grammar, punctuation and spelling.</p> <p>Level 1 (0–3 marks) Candidates will describe the treatment in a limited manner. Their use of appropriate terminology will be limited. Sentences and paragraphs are not always relevant, with the material presented in a way that does not always address the question. Answers may be list-like. There may be noticeable errors of grammar, punctuation and spelling.</p>

Question			Answer	Marks	Guidance	
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			<p>Multiple Sclerosis Various drug treatments are available to suppress symptoms and effects:</p> <ul style="list-style-type: none"> • Interferon Beta 1a • methylprednisolone / steroid • use of canaboids to reduce symptoms • stem cell treatment • gentle exercise • hypobaric oxygen <p>Stroke</p> <ul style="list-style-type: none"> • Aspirin • Warfarin • clot-busting drugs • physiotherapy • speech therapy <p>Alzheimer's</p> <ul style="list-style-type: none"> • sedation • memory therapy • antidepressants • other drug treatments 			

Question		Answer	Marks	Guidance	
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5		<p>Dysfunctions</p> <ul style="list-style-type: none"> renal failure or impaired function due to external influences or neoplasm renal infection/urinary infection renal calculi /stones Nephrotic syndrome <p>Renal failure - caused by obstruction, renal colic, neoplasms, chemicals, recreational drugs, injury.</p> <p>Physiological/physical effects of renal failure that can be applied to their lifestyle:</p> <ul style="list-style-type: none"> kidneys almost entirely or abruptly stop working causing stress worry about scanty urine production daily urine output will be between 50 and 250 ml and cause concern oedema due to salt and water retention leading to swollen limbs, inactivity and depression acidosis due to the kidneys inability to excrete acidic substances, makes the individual lethargic and ill increased levels of urea in the blood change skin colour which limits socialisation anaemia makes them breathless and limits social activity <p>Effects</p> <ul style="list-style-type: none"> fever/high temperature high blood uraemia nausea 	20	<p>Level 4 Detailed explanation. Causes. Detailed description of effects of the dysfunction. Accurate terminology. High QWC.</p> <p>Level 3 Sound explanation. Causes. Description of effects of dysfunction. Accurate terminology. High/mid-QWC.</p> <p>Level 2 Attempt at explanation. Causes. Attempt to describe the effects of the dysfunction. Some terminology. Mid/low-QWC.</p> <p>Level 1 Basic explanation. Identify causes and/or effects of dysfunction. Limited terminology. Low QWC.</p> <p>As the dysfunction is based around a single system many symptoms and effects are common to the different dysfunctions. Accept any other valid response.</p>	<p>Level 4 (16–20 Marks) Candidates will give detailed explanation of possible causes and describe in detail effects of the named dysfunction. They will demonstrate the ability to present their answer in a well-planned and logical manner, with a clearly defined structure. They will use appropriate terminology confidently and accurately. Sentences and paragraphs will directly address the question in a consistent, relevant and well-structured way. There will be few, if any, errors in the use of grammar, punctuation and spelling.</p> <p>Level 3 (11–15 Marks) Candidates will explain possible causes and describe the effects of the named dysfunction. They will demonstrate the ability to present their answer in a planned and logical sequence using appropriate and accurate terminology. Sentences and paragraphs are for the most part relevant and material will be presented in a balanced, logical and coherent manner that addresses the question. There may be occasional errors in the use of grammar, punctuation and spelling.</p>

Question		Answer	Marks	Guidance	
				Content	Levels of response
		<ul style="list-style-type: none"> • vomiting • hiccups • loss of appetite • yellow –brown skin discolouration • pericarditis • high blood pressure • neuropathy • twitching • lack of concentration <p>All of which can be linked to a physical, intellectual, emotional and social effects.</p> <p>Nephrotic syndrome</p> <ul style="list-style-type: none"> • autoimmune • often triggered by bacterial infection • destruction of basement membrane of the glomerular capillaries by immune system • resulting of leakage of protein into urine <p>Effects</p> <ul style="list-style-type: none"> • tiredness • itching of one eye • oedema • reduced clotting time • increased risk of infection • loss of antibodies • kidney failure and associated responses 			<p>Level 2 (6–10 Marks) Candidates will describe possible causes and describe the effects of the named dysfunction They will demonstrate limited ability to organise their answer, using some appropriate terminology. Sentences and paragraphs will not always be relevant and material will be presented in a way that does not always address the question. There may be noticeable errors of grammar, punctuation and spelling. <i>Sub-max of 10 marks for description of causes or effects that include appropriate terminology. Description will be accurate.</i></p> <p>Level 1 (0–5 Marks) Candidates will identify possible causes and/or identify the effects of the named dysfunction their answer will be limited and may contain little evidence of the use of appropriate terminology. Sentences and paragraphs have limited coherence and structure, with little relevance to the main focus of the question. Errors in the use of grammar, punctuation and spelling may be noticeable and obtrusive. Answers may be list like.</p>

Question		Answer	Marks	Guidance	
				Content	Levels of response
		<p>Renal infection - is where any part of the urinary system is attacked and affected by bacteria or viruses.</p> <p>This can lead to impaired function, production of malodorous urine or infected discharges from the system. Therefore, social isolation and marginalisation often occur.</p> <p>Lifestyle effects may be experienced by the body being affected by:</p> <ul style="list-style-type: none"> • fever • rigors • rashes • joint pain <p>If candidates consider the effects of STIs they may comment on burning sensation when passing urine and the socio-emotional effects. These will be linked to their lifestyle and its limitations.</p> <p>Renal calculi/colic - caused by high levels of protein and calcium, can be genetic.</p> <p>This is the production of:</p> <ul style="list-style-type: none"> • stones • gravel • small lakes of calcium in crystalline form <p>The can be present in any part of the urinary system and can lead to:</p> <ul style="list-style-type: none"> • impeded flow of urine and toilet issues • excruciating pain in public places • the problems it gives rise to <p>These will be linked to their lifestyle and its limitations.</p>			

Question		Answer	Marks	Guidance	
				Content	Levels of response
		<p>The lifestyle effects of:</p> <ul style="list-style-type: none"> • nausea • vomiting • hiccups • loss of appetite • brown skin discolouration • high blood pressure • neuropathy • twitching • lack of concentration <p>Renal carcinoma may be used to comment on:</p> <ul style="list-style-type: none"> • with acute urinary retention you often get • many of the symptoms associated with uraemia • neoplasm's can be benign or malignant and cause worry about mortality • malignancies can spread to the liver lung, bone and brain • can lead to social changes in the family and emotional issues in the individual <p>Lifestyle</p> <ul style="list-style-type: none"> • school • work • relationships • family • holidays • hobbies • sport • sexual activities • emotional responses 			

Question		Answer	Marks	Guidance	
				Content	Levels of response
		<p>Intellectual effects</p> <ul style="list-style-type: none"> • not understanding the overall causes, limited understanding of the disease process and its effects • associating and understanding the links between the causes and effects on themselves • if their life style is affecting their condition they may not understand the link and the values and usage of medication and treatment <p>Emotional Effects</p> <ul style="list-style-type: none"> • feels depressed, demotivated, worried, disenfranchised, disempowered, or any other emotionally negative effect • feels inclined to use own experiences to help others • reassesses own life and its effects on those close to them <p>Social Effects</p> <ul style="list-style-type: none"> • decreased socialisation due to the inability to become more active • unable to return to a more normal social life style • lack of working activities/feeling inadequate <p>Accept any other appropriate PIES effect.</p>			

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