OCR
RECOGNISING ACHIEVEMENT

GCE

Health and Social Care

Advanced GCE **F921**

Unit 12: Anatomy and Physiology in Practice

Mark Scheme for June 2010

Oxford Cambridge and RSA Examinations

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Question	Expected Answer	Mark	Total	Rationale
1 (a)	**One** mark for each correct response, SEVEN required 1 urethra 2 penis / erectile tissue 3 testicle 4 seminal vesicle / cowpers gland 5 prostate 6 vas deferens / sperm duct 7 epididymis	7x1	**[7]**	Correct spelling essential for urethra
1 (b)	**One** mark for each correct function, SEVEN required **Urethra** • conveys ejaculate in the reproduction process • structure through which urine passes **Penis** • copulation/intercourse • urination • if erectile tissue used as answer in 1a accept appropriate answer **Testicle** • produce sperm • produce hormones / (hormone named is appropriate) • produce fluid to transport sperm **Seminal vesicle** • secrete a solution used to neutralise acids • it is also a nutrient fluid **Prostate** • provides a nutrient fluid for sperm (which they use in energy production)	7 x 1	**[7]**	Candidate will describe the functions of the following listed structures. Testes do not store sperm For seminal vesicles and prostate answers can be interchangeable or with an element of repetition

Question	Expected Answer	Mark	Total	Rationale
	• hormone production / prostaglandin • stops urine and seminal fluid exiting at same time **Vas Deferens** • conveys sperm from the epididymis to the urethra **Epididymis** • helps to improve sperm motility / matures sperm • used for storage of up to a month			

Question	Expected Answer	Mark	Total	Rationale
1 (c)	**Level 3** [5-6 marks] Candidates will provide a fully developed description that includes accurate terminology. Description of dysfunction will be accurate. 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. **Level 2** [3-4 marks] Candidates will provide a description 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 may be noticeable errors of grammar, punctuation and spelling. **Level 1** [0-2 marks] Candidates' will provide a simple description/identification. Their use of appropriate terminology will be limited. Description of dysfunction 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. **Causes of male infertility/impotence** • reduced motility • low sperm count • deformed sperm • blocked vessels • genetic influences • STI's • infections • cancer / treatment • medication • smoking – significantly decreases both sperm count and sperm		**[6]**	For level three the description should be explicit e.g. deformed sperm - can be caused by exposure to radiation / high temperatures Reponses may be interchangeable

Question	Expected Answer	Mark	Total	Rationale
	cell motility • prolonged use of marijuana and other recreational drugs • chronic alcohol abuse • anabolic steroid use – causes testicular shrinkage and infertility • overly intense exercise – produces high levels of adrenal steroid hormones which cause a testosterone deficiency resulting in infertility • inadequate vitamin C and Zinc in the diet • tight underwear – increases scrotal temperature which results in decreased sperm production • exposure to environmental hazards and toxins such as pesticides, lead, paint, radiation, radioactive substances, mercury, benzene, boron, and heavy metals • malnutrition and anaemia • excessive stress • impotence • psychological influences / anxiety / stress Any other valid point			

Question	Expected Answer	Mark	Total	Rationale
2 (a)	**Level 3** [8-10 marks] Candidates will provide a detailed description of the production of urine that will be accurate. 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. **Level 2** [5-7 marks] Candidates will describe the production of urine with 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 may be noticeable errors of grammar, punctuation and spelling. **Level 1** [0-4 marks] Candidates' will provide a simple description/identification. Their use of appropriate terminology will be limited. Description of the production of urine 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. The function of the renal system is to remove waste products: • by filtering the blood • high pressure blood enters the kidney • where it is filtered under pressure in the glomerulus / Bowmans capsule • it then enters the proximal tubule • where useful substances are absorbed • into it by a network of blood vessels • excess water is absorbed at this point • about 99% percent of the filtrate is re-absorbed in this way		**[10]**	The emphasis is on the production of urine and not osmoregulation or micturition.

Question	Expected Answer	Mark	Total	Rationale
	• the remainder drains into the pelvis of the kidney • exits via the ureter • this then travels down the ureter • by peristaltic action • to the bladder • stored and released Information related to ADH / hormones not necessary but can be awarded mark(s) at discretion.			

Question	Expected Answer	Mark	Total	Rationale
2 (b)	**Level 3** [8-10 marks] Candidates will provide a detailed description of the diagnosis and treatment that includes accurate terminology. Description of the diagnosis and treatment 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 may be occasional errors in the use of grammar, punctuation and spelling. **Level 2** [5-7 marks] Candidates will provide a description that includes accurate terminology. Description of diagnosis and treatment 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 noticeable errors of grammar, punctuation and spelling. **Level 1** [0-4 marks] Candidates' will provide a simple description/identification. Their use of appropriate terminology will be limited. Description/ identification of diagnosis and/or treatment 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. **Dysfunctions** • renal failure or impaired function due to external influences or neoplasm • renal infection/Urinary infection • renal calculi/stones • prostate dysfunction • poly cystic kidney disease • nephrotic syndrome • cystitis		**[10]**	Diagnosis and treatment may be similar in different dysfunctions. However, they should be appropriate and accurate at level 3.

Question	Expected Answer	Mark	Total	Rationale
	Diagnosis • physical examination • plain X-rays • IVP/IVU • Renal Biopsy • Ultrasound • CAT scan • MRI scan • Nuclear Med Scan • blood test • urine test • Uroscopy The descriptions of the above will include the purpose of the examination / test. For example a urine test is taken to measure the levels of urea / albumin / creatinine			

Question	Expected Answer	Mark	Total	Rationale
2 (b) cont'd	**Treatment** **Renal Transplant** • the operation lasts about four hours and is carried out under a general anaesthetic • a donor kidney that has been cross match for acceptability is removed from the donor • the surgeon will make an incision in the abdomen either on the right or left side depending on where to insert the kidney • they do not usually remove failed kidneys unless they are causing problems • the new kidney will be placed above the pelvic brim and connected to the iliac vessels so that the kidney is supplied with blood • the ureter is then connected to the bladder so that urine can drain away • a stent (plastic tube) may be inserted to stop the ureter blocking • the kidney usually starts functioning immediately • anti rejection drugs are taken by the patient to reduce the risk of rejection **Dialysis (haemodialysis and peritoneal)** **Haemodialysis** • in a patient suffering from temporary or permanent kidney failure, cleansing of the blood can be done with an artificial kidney machine; this is known as haemodialysis • two plastic tubes, one connected to an artery and one to a vein, are implanted in the patient's arm or leg / fistula / shunt / anastomosis • during dialysis, which can take three to five hours per treatment, blood from the artery tube enters the machine and comes into contact with a thin membrane • wastes from the blood pass through the membrane into circulating fluid on the other side of the membrane			

Question	Expected Answer	Mark	Total	Rationale
	• the blood cells themselves cannot cross the membrane • the cleaned blood is then piped back into the patient through the vein tube			

Question	Expected Answer	Mark	Total	Rationale
2 (b) cont'd	**Peritoneal Dialysis** • in peritoneal dialysis, the patient's own peritoneum (lining of the abdominal cavity) is used as the dialysis membrane • a sterile plastic catheter (tube) is passed into the abdominal cavity • a solution of glucose (a form of sugar) and mineral salts is periodically injected into and withdrawn from the cavity • the fluid comes into contact with delicate blood vessels in the peritoneum • because of the difference in concentration of certain chemical elements in the blood and the dialysis solution • wastes from the blood are forced through the membrane of the peritoneal wall • the dialysis liquid is periodically withdrawn and replaced with a fresh solution **Lithotrypsy** • the use of sound waves to destroy renal calculi • can be done by immersing the patient in a tank of water as the acoustic couple • surgically an ultrasound probe is used to blast the calculi in situ • uroscopic removal off stones is done by using a snare or basket in theatre and under anaesthetic • surgical removal of stones under x-ray or ultrasound control either using a fibre optic laparoscope • diet and fluids can be controlled; reducing protein helps reduce the problems in renal failure as does reducing fluids • increasing fluids can help in the flushing out of small renal calculi			

Question	Expected Answer	Mark	Total	Rationale
	Other Treatments • drugs, diuretics antibiotics, anti inflammatory drugs and immunosuppressants to: - increase urine production to move stones - treat infections - reduce inflammation - suppress immune responses - or any other appropriate treatment			

Question	Expected Answer	Mark	Total	Rationale
3 (a)	**One** mark for the substance, FOUR required **One** mark for its purpose, FOUR required **Salivary gland** • saliva: lubricates food • salivary amylase: starts to break down starch • lingual lipase: fatty acid breakdown **Stomach** • pepsin: breaks peptide bonds/proteins • gastric lipase: splits fatty acid chains • hydrochloric acid: kills microbes, denatures proteins • intrinsic factor: assists absorption of B12 • mucus: lines and protects stomach • gastrin: stimulates HCl and pepsinogen secreation, contracts and relaxes sphincters, increases stomach motility. **Liver** • bile: emulsification / break up of fats, • bile: disposal of broken down blood products eg bilirubin • bile / alkaline salts to neutralise acid **Pancreas** • insulin: blood sugar regulation • glucogon: blood sugar regulation • (pancreatic) amylase: starts to break down starch • trypsinogin / trypsin: protein breakdown • proteases: digestion of protein • pancreatic lipase: fatty acid breakdown	4x1 4x1	**[8]**	Vague answers are not acceptable

Question	Expected Answer	Mark	Total	Rationale
3 (b)	**Level 3** [6-7 marks] Candidates will provide a fully developed explanation of both the principles and values that includes 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. **Level 2** [4-5 marks] Candidates will provide a developed description of the principles and / or the values 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 may be noticeable errors of grammar, punctuation and spelling. **Level 1** [0-3 marks] Candidates' will provide a simple identification of the principles and / or values. 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.		**[7]**	

Question	Expected Answer	Mark	Total	Rationale
3 (b) cont'd	**Principles** • an endoscopy is a procedure where the inside of your body is directly examined using a device known as an endoscope • an endoscope is a thin, long flexible tube that contains fibre optic strands a light source and a video camera, so images of the inside of the body can be relayed to an external monitor • endoscopes can be inserted into the body through a natural opening, such as your throat or anus • alternatively, the endoscope can be introduced through a small surgical incision that is made in the skin • the end of the scope can be guided by the operator so that they can see all surfaces and advance and retreat the scope as required • a variety of specially adapted instruments can be used through the scope in order to perform minor surgical procedures such as biopsy and tissue removal • blood vessels that are bleeding as in ulcers can be diathermied and coagulated **Values** • the procedure is normally carried out when you are awake, though you may be given a sedative to relax you • therefore a general anesthetic is not required and is quick and relatively painless • endoscopes are primarily used as a diagnostic tool, though there are some specially adapted endoscopes that can be used for the following purposes • gallstone removal • polyp and lesions treatment • biopsy of surrounding tissue • coagulation or ligation of blood vessels • immediate visualisation • low cost			

Question	Expected Answer	Mark	Total	Rationale
3 (c)	**Level 3** [5 marks] Candidates will provide a fully developed description of the treatment that includes accurate terminology. Description of dysfunction will be accurate. 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. **Level 2** [3-4 marks] Candidates will provide a description of the treatment 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 may be noticeable errors of grammar, punctuation and spelling. **Level 1** [0-2 marks] Candidates' will provide a simple description/identification. Description of effects may be limited. 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. **Gallstones** • the surgeon will make two or three small cuts (about 5-10mm long) on the skin, above, or just below, your navel • using a hollow needle, passed through or near your navel, carbon dioxide gas is pumped into the abdomen • this creates more room for your surgeon to work in and makes it easier to see the internal organs • the laparoscope (a long, thin telescope with a light and camera lens at the tip) is then passed through one of the cuts		**[5]**	

Question	Expected Answer	Mark	Total	Rationale
	• the surgeon will examine the internal organs by looking directly through the laparoscope, or at pictures it sends to a video screen • specially adapted surgical instruments / laser are passed through the other cuts to help move the internal structures so that your surgeon can see around them and to cut and remove the gall bladder • x-ray pictures may be taken to look at the bile duct during the operation, so that the surgeon can find out if any gallstones are blocking the bile duct • afterwards, the instruments are removed and the gas is allowed to escape through the laparoscope • the skin cuts are closed with dissolvable stitches and covered with a dressing. The operation takes 60 to 90 minutes **Gastric Ulcer** **H Pylori caused:** • treatment to clear the infection will cure the ulcer • two antibiotics are needed • in addition, a medicine to reduce the acid in the stomach is needed to allow the antibiotics to work well • you need to take this 'combination therapy' (sometimes called 'triple therapy') for a week • it is important to take the full course. One course of combination therapy clears *H. pylori* in up to 9 in 10 cases • (however, in a small number of cases, *H. pylori* infection returns at some stage in the future) **Gastrectomy** • the surgery is done while you are under general anesthesia (unconscious and pain-free) • the surgeon makes a cut in the abdomen and removes all or part of the stomach, depending on the reason for the operation • the intestine is then re-connected to the remaining stomach (partial gastrectomy) or to the esophagus (total gastrectomy)			

Question	Expected Answer	Mark	Total	Rationale
	• after controlling the blood supply, the opening is closed with stitches • alternatively a vagotomy is performed where the surgeon cuts the vagus nerve, which controls the stomach's production of gastric acid thus reducing the cause of the ulcer • various drugs can be used such as H2 inhibitors beta blockers and in the case of arthritics reducing their anti-inflammatories that often cause ulcers **IBS** **Self-help** For most people with IBS, a healthy lifestyle is the best way to improve symptoms. This can include the following. • diarrhoea, avoid tea, coffee, alcohol, spicy food and the artificial sweetener sorbitol, as these can increase your symptoms • constipation, gradually introduce more fibre-rich foods, such as bran, fruit and vegetables, into your diet • bloating or wind, cutting out gas-producing foods, such as beans and green vegetables (eg cabbage and broccoli), may help • some people find that certain foods regularly bring on symptoms, but this isn't always easy to discover • it's best not to miss out one food after another from your diet to see if it's causing your symptoms, as you may not be getting all the nutrients you need in your diet. Advice from a dietician can be useful • life stress triggers IBS, learning stress management or relaxation techniques may be useful • keeping a diary to compare the symptoms with life events may be helpful • if certain events are identified as triggers, it may be easier to deal with the stress • taking regular exercise helps to keep your bowel movements regular and reduce stress			

Question	Expected Answer	Mark	Total	Rationale
	• painkillers, paracetamol is less likely than ibuprofen or aspirin to make your IBS worse • other procedures eg colostomy are used to manage the dysfunction only as a last resort when severe damage has occurred • procedures such as a barium study will only be used to rule out other dysfunctions that have similar symptoms **Coeliac Disease** • change of diet to avoid gluten • availability of suitable gluten free foods • making sure that certain products are not contaminated by others • making sure that meat products are not adulterated with other wheat based products • taking mineral supplements • taking vitamin supplements • avoiding alcoholic drinks that are wheat based • appropriate acquisition of health education related to the dysfunction Any other relevant comment that indicates the avoidance of gluten in food products Application of appropriate complementary therapies related to the dysfunction described.			

Question	Expected Answer	Mark	Total	Rationale
3 (c) cont'd	**Medication** • anti-diarrhoea medicines, such as Imodium may help but should not be used on a regular basis • laxatives, such as bran or Fybogel, can be helpful. These are bulk-forming laxatives • however, some people find that bran makes their symptoms worse • lactulose is an alternative to bulk-forming agents. It increases the amount of water absorbed in your large bowel but can cause wind • stronger laxatives, such as senna, you should be prescribed by a doctor before routine use • antispasmodic medicines, and peppermint oil capsules, may help with pain and wind • probiotic bacteria that are sometimes contained in yoghurts • there is some scientific evidence that certain strains can be helpful for IBS symptoms, but this isn't conclusive • pain relief			

Question	Expected Answer	Mark	Total	Rationale
4 (a)	**One** mark for each principle, TWO required for each **Steroids** • corticosteroids (steroids) are used to reduce inflammation • reduces mucus production in the airways of the lungs • they also reduce the swelling and narrowing of the airways • help other quick-relief medicines work better **Antibiotics** • an antibiotic inhibits or kills 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	2 x 2	**[4]**	Candidate should be focusing on the principles and not the use in specific dysfunctions e.g. helps to reduce the symptoms / improve breathing of asthma, should not be accepted For antibiotics do not accept references to germs or infections.

Question	Expected Answer	Mark	Total	Rationale
4 (b)	**Level 3** [5-6 marks] Candidates will provide a fully developed description that includes accurate terminology. Description of the causes of the dysfunction will be accurate. 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. **Level 2** [3-4 marks] Candidates will provide a 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 may be noticeable errors of grammar, punctuation and spelling. **Level 1** [0-2 marks] Candidates' will provide a simple description/identification of the causes of the dysfunction. 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. **Asthma (causes and triggers)** • genetic influences • 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, moulds • exercise – especially in cold, dry air • emotions – laughing or crying very hard can trigger symptoms, as can stress		**[6]**	

Question	Expected Answer	Mark	Total	Rationale
4 (b) cont'd	**Bronchitis** • the infection which causes bronchitis can be the result of either 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 either direct contact or through tiny airborne droplets of liquid, passed on through coughing and sneezing • bronchitis can also 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, and it can affect those who inhale second-hand smoke as well as smokers themselves • materials that can damage your lungs, such as 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 **Cystic Fibrosis** • Cystic fibrosis is caused by a defect in a gene called the cystic fibrosis transmembrane conductance regulator (CFTR) gene • this gene makes a protein that controls the movement of salt and water in and out of the cells in the body • in people with CF, the gene does not work effectively. This causes the thick, sticky mucus • the need for both parents to carry the recessive gene • 1in4 chance (25%) of the child acquiring the dysfunction			

Question	Expected Answer	Mark	Total	Rationale
4 (c)	**Level 3** [8-10 marks] Candidates will identify at least two diagnostic techniques and provide a detailed description that includes accurate terminology. Description of the techniques and information 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 may be occasional errors in the use of grammar, punctuation and spelling. **Level 2** [5-7 marks] Candidates will identify two diagnostic techniques and will provide a description that includes accurate terminology. Description of techniques and information 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 noticeable errors of grammar, punctuation and spelling. **Level 1** [0-4 marks] Candidates' will identify one diagnostic technique and provide a basic description. 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.		**[10]**	The candidate does not have to link to their chosen dysfunction.

Question	Expected Answer	Mark	Total	Rationale
4 (c) cont'd	**Diagnostic techniques** **Chest X-Ray** • 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, and the bones of the chest area • they can show infection, change in structure and evidence of previous disease processes **Cat Scan/MRI** • it provides detailed, cross-sectional views of all types of tissue and 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 • measure 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 **Blood/sputum testing** • blood tests help doctors check for certain diseases and conditions • they also 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 • a low WBC may be due to a viral infection, a toxic reaction that is limiting production of normal WBC's. A high WBC count may			

Question	Expected Answer	Mark	Total	Rationale
	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 **Peak Flow** • peak flow can measure the maximum volume 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 dysfunction rises • conversely, a peak flow which remains at a high level helps in reassuring that the dysfunction is under control and perhaps any medications being used may be decreased • peak flow can help when dysfunction 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 the dysfunction • Peak Flow Meter can also be used during an episode • it can help you determine the severity of the episode and if further medication is required **Cystic Fibrosis** • Sweat test • genetic testing / blood test • spirometry • peak flow			

Question	Expected Answer	Mark	Total	Rationale
	Clinical examination/observation for all dysfunctions The clinician can asses 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			

Question	Expected Answer	Mark	Total	Rationale
5	**Level 4** [16-20 marks] Candidates will give detailed discussion of how lifestyle can contribute to cardiac disease. 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. **Level 3** [11-15 marks] Candidates will explain how lifestyle can contribute to cardiac disease. 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. **Level 2** [6-10 marks] Candidates will describe how lifestyle can contribute to cardiac disease. 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. **Level 1** [0-5 marks] Candidates will identify how lifestyle can contribute to cardiac disease. 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.		**[20]**	Answers will only be awarded for the factors that contribute and not those factors that prevent.

Question	Expected Answer	Mark	Total	Rationale
5 cont'd	The following life style choices will be used as discussion points: • excessive alcohol intake and not complying to recommended levels (less than 21 units per week for men; and less than 14 units per week for women) • not eating a low-fat, balanced, healthy diet • not restricting consumption of salt to less than 6g (0.2oz) a day • not losing weight, if overweight or obese • not restricting caffeine consumption to less than five cups of coffee, or tea, a day • use of recreational drugs • being exposed to stressful situations e.g. work, family, holidays, moving house. • In assessing the risk of cardiovascular disease, heart attack, or stroke, not monitoring cholesterol / lipid levels • BMI (body mass index – weight in relation to your height) • treatable risk factors, such as high blood pressure (hypertension) and diabetes • Smoking- by smoking nicotine raises the blood pressure because it causes the body to release adrenaline, which makes the blood vessels constrict and the heart beat faster it also damages the lining of arteries • high blood pressure results in damage to the vascular system • lack of exercise – results in weight gain, fat deposition, high blood pressure and an increase in the risk of heart disease • poor diet / processed foods will result in lack of vitamin, antioxidents, lycopenes / flavenoids as well as high fat and salt levels which will contribute to cardiac dysfunction • adopting a sedentary life style e.g. couch potato • avoidance of health advice / education • choosing to spend time with people that adopt poor life style choices and habits *Any other valid discussion point*			

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