

**3625-31-032/532 JUNE 2019 MARK SCHEME**

**Level 3 Advanced Technical Extended Diploma in Health and Care (1080)**

Level 3 Health and Care – Theory Exam (1)

**June 2019**

<b>Q1</b>	Identify <b>three</b> structures found in the human respiratory system.		(3 marks)
<b>Q1</b>	<b>Acceptable answer(s)</b>	<b>Guidance</b>	<b>Max marks</b>
<b>Q1</b>	<p><b>One mark for each point, up to a maximum of three marks:</b></p> <ul style="list-style-type: none"> <li>• Nose (1)</li> <li>• Larynx (1)</li> <li>• Pharynx (1)</li> <li>• Trachea (1)</li> <li>• Bronchi (1)</li> <li>• Lungs (1)</li> </ul>		3

<b>Q2</b>	Identify the body systems responsible for <b>each</b> of the following:		
	a) thermoregulation		(1 mark)
	b) wound healing		(1 mark)
	c) fluid balance.		(1 mark)
<b>Q2</b>	<b>Acceptable answer(s)</b>	<b>Guidance</b>	<b>Max marks</b>
<b>Q2a</b>	<b>One mark for correct identification of the following:</b> <ul style="list-style-type: none"> <li>• Endocrine (1)</li> </ul>		1
<b>Q2b</b>	<b>One mark for correct identification of the following:</b> <ul style="list-style-type: none"> <li>• Lymphatic / immune (1)</li> </ul>		1
<b>Q2c</b>	<b>One mark for correct identification of the following:</b> <ul style="list-style-type: none"> <li>• Urinary / renal (1)</li> </ul>		1

<b>Q3</b>	Explain the importance of homeostasis in the human body.		(2 marks)
<b>Q3</b>	<b>Acceptable answer(s)</b>	<b>Guidance</b>	<b>Max marks</b>
<b>Q3</b>	<p><b>One mark for each point. Answer to include both parts to achieve maximum marks:</b></p> <ul style="list-style-type: none"> <li>• Allows organisms to maintain a balance between water and minerals at a cellular level (1).</li> <li>• Maintains the balance despite changes in the external environment (1).</li> </ul>	<p><b>Marks can be awarded for examples of regulating body temperature up to a maximum of one mark.</b></p> <p><b>Candidates must include a biological response ie reference to water and minerals, to achieve maximum marks.</b></p>	2

Q4	Describe how the symbolic interactionist approach could influence the GP and patient relationship when managing health.		(4 marks)
Q4	<b>Acceptable answer(s)</b>	<b>Guidance</b>	<b>Max marks</b>
Q4	<p><b>One mark for each of the following descriptions to a maximum of four marks:</b></p> <ul style="list-style-type: none"> <li>• Symbolic interactionism emphasises that health and illness are social constructions so physical and mental conditions have little or no objective reality (1)</li> <li>• Consciously or unconsciously doctors manage the situation to display their authority and medical knowledge (1)</li> <li>• The doctor is addressed by their professional title while patients are called by their first name (1)</li> <li>• Doctors use medical terms to describe a patient's illness, patients often use less complex terms (1)</li> <li>• Illness will impact on the patients' self-identity and self-worth/ may create stigma (1)</li> </ul>		4

Q5	<p>Peter has an appointment with a health professional for a check-up after surgery on his arm.</p> <p>a) Describe what is meant by the biopsychosocial model of health. (2 marks)</p> <p>b) Explain how the biopsychosocial model can be used to support Peter’s health and wellbeing. (6 marks)</p>		
Q5	Acceptable answer(s)	Guidance	Max marks
Q5	<p><b>a) One mark for each of the following up to a maximum of two marks.</b></p> <ul style="list-style-type: none"> <li>• An approach where biological, psychological and social dimensions are inextricably intertwined. (1)</li> <li>• Provides a holistic understanding of individuals’ health and wellbeing. (1)</li> </ul>	<p><b>Marks should not be awarded for only listing biological, psychological and social. Candidates must recognise these all impact on each other to gain one mark.</b></p>	2
Q5	<p><b>b) One mark for each explanation of how the biopsychosocial model can be used up to a maximum of six marks.</b></p> <ul style="list-style-type: none"> <li>• The health professional will employ a patient-centred approach (1) because the model suggests a partnership between Peter and the health professional to support his health (1)</li> <li>• He will be encouraged to make his own decisions through informed choice about care and treatment rather than being told what to do by a health professional (1) which makes Peter feel empowered/in control of his health (1)</li> <li>• The professional will ask questions to determine Peter’s subjective experience of his health (1) which will enable a more precise and valid assessment to provide clinicians with improved strategies for treatment (1)</li> <li>• The professional will not assume that the effects of the biological results are the same for Peter as other patients (1) and will consider Peter’s health and wellbeing holistically (1)</li> <li>• Prevents labelling/stereotyping/discrimination of Peter’s individual circumstances (1) which may influence the course and outcome of his health improvement (1)</li> <li>• Offers a longer-term solution/treatment to his health and well-being need (1) which helps to reduce re-occurring problems (1)</li> </ul>		6

Q6	Describe how doctors incorporate individualism and diversity when supporting patients.		(4 marks)
Q6	<b>Acceptable answer(s)</b>	<b>Guidance</b>	<b>Max marks</b>
Q6	<p><b>One mark for each point to a maximum of four marks</b></p> <ul style="list-style-type: none"> <li>• The doctor will need to consider patients as a unique individuals by considering their personal values, culture and beliefs when providing support. (1)</li> <li>• The doctor will apply a person-centred approach to supporting patients. (1)</li> <li>• The doctor will understand that the patient’s emotional intelligence/self-determination involves them having the capacity to motivate themselves, persist in the face of setbacks and failures (1)</li> <li>• The doctor will use interpersonal skills to interact with patents, so they are better able to support them and meet their needs (1)</li> <li>• The doctor will respect and understand that the patient’s view of the illness will be individual, and they will bring their own interpretation and understanding to the situation. (1)</li> </ul>		4

Q7	Evaluate the biomedical model's contribution to the promotion of health and wellbeing and treatment of disease. (4 marks)		
Q7	<b>Acceptable answer(s)</b>	<b>Guidance</b>	<b>Max marks</b>
Q7	<p><b>One mark each for the following to a maximum of four marks:</b></p> <ul style="list-style-type: none"> <li>• It considers the scientific evidence to understand causes and possible treatment because it believes illness arises from an underlying abnormality within the body (1) and ignores the social factors which can cause illness (1)</li> <li>• Results of biomedical approaches tend to provide predictable results (1) which follow established ways of providing support/treatment. (1)</li> <li>• It views the patient as the passive recipient of prescribed treatment (1) and expects co-operation by the patient which may or may not occur (1)</li> <li>• The patient is a victim of circumstance regarding their health with little or no responsibility for the presence or cause of illness (1) and external factors are not related to the development or manifestation of disease (1)</li> </ul>	<p><b>An Example of finding new treatments and combatting disease can be awarded a maximum of 1 mark.</b></p>	4



<b>Q8</b>	Identify <b>two</b> ways in which a genetic trait can be inherited?		(2 marks)
<b>Q8</b>	<b>Acceptable answer(s)</b>	<b>Guidance</b>	<b>Max marks</b>
<b>Q8</b>	<b>One mark for each of the following:</b> <ul style="list-style-type: none"> <li>• Through recessive genes (1)</li> <li>• Through dominant genes (1)</li> </ul>		2

Q9	Identify <b>five</b> physiological measurements that are used to measure health.		(5 marks)
Q9	<b>Acceptable answer(s)</b>	<b>Guidance</b>	<b>Max marks</b>
Q9	<b>One mark for each of the following up to a maximum of five marks:</b> <ul style="list-style-type: none"> <li>• heart rate (1)</li> <li>• blood pressure (1)</li> <li>• temperature (1)</li> <li>• oxygen saturation (1)</li> <li>• respiratory rate (1)</li> </ul>		5

<b>Q10</b>	State the purpose of <b>five</b> diagnostic tests that are used to measure the health of an individual.		(5 marks)
<b>Q10</b>	<b>Acceptable answer(s)</b>	<b>Guidance</b>	<b>Max marks</b>
<b>Q10</b>	<p><b>One mark for each description to a maximum of five marks</b></p> <ul style="list-style-type: none"> <li>• ECG to measure electrical activity in the heart (1)</li> <li>• Pulse rate check to measure how many heart beats per minute (1)</li> <li>• Blood Pressure monitor to measure systolic and diastolic pressure (1)</li> <li>• Peak flow (PEF) lung function test to measure how fast an individual can breathe out (1)</li> <li>• Urinalysis to detect metabolic and kidney disorders (1)</li> <li>• EEG records brain activity (1)</li> <li>• Glucose monitoring to detect diabetes (1)</li> <li>• X-ray to look at bones / sometimes to detect problems affecting soft tissue (1)</li> <li>• Pregnancy test to sample markers found in blood and urine (1)</li> <li>• Complete Blood Count (CBC) to evaluate overall health / detect disorders such as anaemia (1)</li> </ul>	<p><b>No marks to be awarded for only listing the tests without a description.</b></p>	5

<b>Q11</b>	Identify the first <b>four</b> stages of meiosis.		(4 marks)
<b>Q11</b>	<b>Acceptable answer(s)</b>	<b>Guidance</b>	<b>Max marks</b>
<b>Q11</b>	<b>One mark for each identification, up to a maximum of four marks:</b> <ul style="list-style-type: none"> <li>• Prophase (1)</li> <li>• Metaphase (1)</li> <li>• Anaphase (1)</li> <li>• Telophase (1)</li> </ul>		4

Q12	Explain how contemporary genetic research informs understanding of individual diseases.	(4 marks)	
Q12	Acceptable answer(s)	Guidance	Max marks
Q12	<p><b>One mark for any four of the following up to a maximum of four marks</b></p> <ul style="list-style-type: none"> <li>• Can support knowledge of genetic mutation or genetic variance (1) which plays role in increasing or decreasing a person’s risk of developing a particular disease (1)</li> <li>• Can assist health care practitioners to classify disease more precisely (1) and to treat/cure more effectively or eliminate the disease (1) through gene removal (1)</li> <li>• Can predict how an individual will respond to drugs (1) and inform prescription of the appropriate drug or dosage (1)</li> <li>• Can offer individuals a personalised genetic health treatment (1) and opportunity to make lifestyle/treatment decision (1)</li> <li>• Can uncover new patterns and relationships that would not otherwise be evident (1)</li> <li>• Offers a higher precision of risk identification (1) reducing health care costs (1) and unnecessary treatments (1)</li> </ul>		4

<p><b>Q13</b></p>	<p>Stuart is 30 years old. He enjoys playing sport every weekend with his friends to keep fit and healthy. He is beginning to experience pain in his knees and feet and is concerned that he may have to stop playing sport. Stuart visits his doctor to discuss this health concern.</p> <p>Discuss the factors that should be considered during the consultation with regards to Stuart’s health and wellbeing.</p>		<p>(12 marks)</p>
<p><b>Q13</b></p>	<p><b>Acceptable answer(s)</b></p>	<p><b>Guidance</b></p>	<p><b>Max marks</b></p>
<p><b>Q13</b></p>	<ul style="list-style-type: none"> <li>• relationship between cells and the musculo-skeletal system</li> <li>• Structure and function of the musculo-skeletal system</li> <li>• how the body moves</li> <li>• health and well-being applied to Stuart’s emerging health issues</li> <li>• psychological perspectives</li> <li>• Contemporary research of osteoarthritis and treatment</li> <li>• genetic links to musculo-skeletal problems</li> <li>• biomedical approach</li> <li>• biopsychosocial model</li> <li>• theoretical sociological approaches</li> <li>• diagnostic tests</li> <li>• routine physiological measurements</li> </ul>	<p><b><i>For no awardable content, award 0 marks.</i></b></p> <p><b>Band 1 1-4 marks</b>  Basic discussion with limited considerations taken into account on the individual’s health. Made little reference to the individual’s wellbeing and health and care support available with little or no justifications. Limited explanations for recommendations made to improve health and wellbeing. The response lacked structure and coherency. Where facts were provided, these were sometimes incorrect.</p> <p>To access higher marks in the band the response will include some attempt to address a larger range of considerations.</p> <p><b>Band 2 5-8 marks</b>  Clear and relevant discussion which makes a reasonable attempt to cover the main considerations affecting Stuart’s health and well-being and potential impacts which display good breadth of knowledge and understanding. The discussion includes recommendations for improvement and the support available which may be detailed in some areas. There may be use of some examples to support the</p>	<p>12</p>

		<p>discussion. The overall discussion is presented in a clear format and the use of terminology is mostly appropriate. Content is factually accurate.</p> <p>To access higher marks in the band, the discussion will attempt to cover a holistic approach. Answer is mostly detailed and contain some justifications with good links to health and care services and some reference to theory/theories. The overall discussion will be presented clearly and with some logical structure.</p> <p><b>Band 3 9-12 marks</b>  Comprehensive and clear discussion showing breadth of understanding across a range of considerations which were supported by effective justification that displayed depth of understanding. Sound knowledge and understanding of the potential impact on individual’s health and wellbeing. A well-reasoned discussion with accurate links to health and wellbeing support services considered. Throughout the discussion coherent opinions were offered with clearly defined examples and possible reference to theory/theories. Relevant use of accurate terminology was evident. The entire discussion was relevant and factually accurate.</p> <p>To access higher marks in the band the response will be coherent, balanced and structured in a logical way. Clear and strong reference to theory/theories to support discussion. All recommendations will be fully justified.</p>	
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