NCFE CACHE Technical Level 3 Extended Diploma in Health and Social Care (601/8435/8)

January 2020

Assessment code: HSCSAE

Mark Scheme

This mark scheme has been written by the Assessment Writer and refined, alongside the relevant questions, by a panel of subject experts through the external assessment writing process and at standardisation meetings.

The purpose of this mark scheme is to give you:

- examples and criteria of the types of response expected from a learner
- information on how individual marks are to be awarded
- the allocated assessment objective(s) and total mark for each question.

Marking guidelines

General guidelines

You must apply the following marking guidelines to all marking undertaken throughout the marking period. This is to ensure fairness to all learners, who must receive the same treatment. You must mark the first learner in exactly the same way as you mark the last.

- The mark scheme must be referred to throughout the marking period and applied consistently. Do not change your approach to marking once you have been standardised.
- Reward learners positively giving credit for what they have shown, rather than what they might have omitted.
- Utilise the whole mark range and always award full marks when the response merits them.
- Be prepared to award zero marks if the learner's response has no creditworthy material.
- Do not credit irrelevant material that does not answer the question, no matter how impressive the response might be.
- The marks awarded for each response should be clearly and legibly recorded in the grid on the front of the question paper.
- If you are in any doubt about the application of the mark scheme, you must consult with your Team Leader or the Chief Examiner.

Guidelines for using extended response marking grids

Extended response marking grids have been designed to award a learner's response holistically and should follow a best-fit approach. The grids are broken down into levels, with each level having an associated descriptor indicating the performance at that level. You should determine the level before determining the mark.

When determining a level, you should use a bottom up approach. If the response meets all the descriptors in the lowest level, you should move to the next one, and so on, until the response matches the level descriptor. Remember to look at the overall quality of the response and reward learners positively, rather than focussing on small omissions. If the response covers aspects at different levels, you should use a best-fit approach at this stage, and use the available marks within the level to credit the response appropriately.

When determining a mark, your decision should be based on the quality of the response in relation to the descriptors. Standardisation materials, marked by the Chief Examiner, will help you with determining a mark. You will be able to use exemplar learner responses to compare to live responses, to decide if it is the same, better or worse.

You are reminded that the indicative content provided under the marking grid is there as a guide, and therefore you must credit any other suitable responses a learner may produce. It is not a requirement either, that learners must cover all of the indicative content to be awarded full marks.

Assessment objectives

This unit requires learners to:

AO1	Recall of knowledge and understanding
AO2	Application of knowledge and understanding
AO3	Analysis to demonstrate knowledge of concepts and theories

Qu	Mark scheme	Total marks
1 (a)	**Weight is one measurement that is required to calculate Body Mass Index (BMI).** **Name the** other **measurement required to calculate BMI.** Award **one (1)** mark for: • Height (1).	**1** **AO1=1**
1 (b)	**It is essential to get consent before taking physiological measurements.** **Explain how a practitioner would gain informed consent.** Award up to **four (4)** marks for an explanation of the procedure: **4 marks** – The explanation is detailed and accurate and shows clear understanding of the procedure. **3 marks** – The explanation is appropriate and accurate and shows understanding of the procedure. **2 marks** – The explanation is mostly appropriate showing some understanding of the procedure. **1 mark** – The explanation is limited and lacks understanding of the procedure. **0 marks** – No creditworthy material. • give the service user adequate information regarding the procedure • give the service user adequate opportunity to consider all options • respond to the service user's questions • obtain the service user's agreement to the procedure • continue to provide information during the procedure to ensure continuing consent. • Follow policies and procedures	**4** **AO2=4**

1 (c)	**Analyse how diet may affect changes in Body Mass Index (BMI).** **Level** / **Marks** / **Description** **3** / **9–12** / A wide range of relevant knowledge and understanding of how diet may affect changes in Body Mass Index is shown, which is accurate and detailed. Application of knowledge is appropriate and accurate and shows clear understanding of how diet may affect changes in Body Mass Index. Analysis to demonstrate understanding of how diet may affect changes in Body Mass Index is detailed and highly effective, with reasoned judgements related to the maintenance of body temperature made. Clear links are made. **2** / **5–8** / A wide range of relevant knowledge and understanding of how diet may affect changes in Body Mass Index is shown, which is mostly accurate and detailed. Application of knowledge is mostly appropriate, showing some clear understanding of how diet may affect changes in Body Mass Index. There may be a few errors. Analysis to demonstrate understanding of how diet may affect changes in Body Mass Index is effective and mostly relevant, with simplistic judgements related to the maintenance of body temperature made. Some clear links are made.	**12** **AO1=2** **AO2=5** **AO3=5**

1	**1–4**	A limited range of relevant knowledge and understanding of how diet may affect changes in Body Mass Index is shown, but is often fragmented. Application of knowledge is limited and may show a lack of understanding of how diet may affect changes in Body Mass Index. There may be a number of errors. Analysis to demonstrate understanding of how diet may affect changes in Body Mass Index lacks detail and may have limited effectiveness and relevance to the maintenance of body temperature. Links may be made but are often inappropriate.
	0	No creditworthy material

Indicative content

- Body Mass Index (BMI) measures the relationship between weight and height
- BMI is calculated as your weight (in kilograms) divided by the square of your height (in metres) or BMI = Kg/M^2
- The range of BMI is as follows:
  - less than 18.5 = Underweight
  - between 18.5–24.9 = Healthy Weight
  - between 25–29.9 = Overweight
  - over 30 = Obese.
- Poor diet can affect the weight of an individual, resulting in it either going up or going down
- If an individual eats food that contains too much sugar, they can gain weight. This will increase their BMI
- If an individual eats food that contains high fat, they can gain weight. This will increase their BMI
- If an individual excessively consumes food, they can gain weight. This will increase their BMI
- An increase in weight will increase an individual's BMI, as the relationship between weight and height will change
- If an individual consumes insufficient food, they can lose weight. This will reduce their BMI
- If a person does not consume sufficient nutrients, they can lose weight. This will reduce their BMI
- Weight loss will reduce an individual's BMI, as the relationship between weight and height will change.

Accept other suitable responses.

1 (d)	**Apart from diet, identify** one (1) other **factor that affects Body Mass Index (BMI)** and **explain why this factor affects BMI.** Award **one (1)** mark for identification of a factor and up to **two (2)** further marks for an explanation. • Age (1) – older adults tend to have more body fat than younger adults (1). An older adult may have an altered BMI via other measures, such as water retention or reduced muscle mass (1) • Sex (1) – women have greater amounts of total body fat than men (1). A woman may have a different BMI from a man due to other measures, such as differing water mass or muscle mass (1) • Medication (1) – some medications have a side effect which slows metabolism (1). Some medications have a side effect which speeds up metabolism (1). Accept other suitable responses.	**3** **AO1=1** **AO2=2**

2 (a)	**Identify the primary sex hormone in males** and **describe its function**. Award **one (1)** mark for correct identification. • Testosterone (1). Award up to **three (3)** marks for a correct description. • Plays a key role in the development of male reproductive tissues such as testes and prostate (1) • Promotes secondary sexual characteristics such as increased muscle and bone mass, and the growth of body hair (1) • Involved in health and well-being, such as the prevention of osteoporosis (1) • Necessary for normal sperm development (1) • Attention, memory, and spatial ability are key cognitive functions affected by testosterone (1). Accept other suitable responses.	**4** **AO1=1** **AO2=3**

2 (b) **Explain the relationship between the endocrine system** and **digestive system.**

6

AO2=3

AO3=3

Level	Marks	Description
3	**5–6**	Application of knowledge is appropriate and accurate and shows clear understanding of the relationship between the endocrine and digestive system. Analysis to demonstrate understanding of the relationship between the endocrine and digestive system is detailed and highly effective, with clearly reasoned consequences. Clear links are made.
2	**3–4**	Application of knowledge is mostly appropriate, showing some clear understanding of the relationship between the endocrine and digestive system. There may be a few errors. Analysis to demonstrate understanding of the relationship between the endocrine and digestive system is effective and mostly relevant, with simplistic consequences. Some clear links are made.
1	**1–2**	Application of knowledge is limited and may show a lack of understanding of the relationship between the endocrine and digestive system. There may be a number of errors. Analysis to demonstrate understanding of the relationship between the endocrine and digestive system lacks detail and may have limited effectiveness and relevance. Links may be made but are often inappropriate.
	0	No creditworthy material.

Indicative content

- The digestive tract is the largest endocrine-related organ system in the body
- It makes and secretes several different types of hormones that play a role in the body's metabolism
- The circulatory system carries chemical signals from your endocrine system that control the speed of digestion
- Ghrelin is produced in the stomach, and its function is to tell the brain that the body has to be fed. It increases appetite

	• Gastrin is produced in the stomach when it is stretched. It stimulates the release of gastric juice rich in pepsin and hydrochloric acid • Secretin is produced in the duodenum and has the effect of stimulating the pancreas to produce alkaline secretions as well as slowing the emptying of the stomach • Cholecystokinin (CCK) is produced in the duodenum. It reduces appetite, slows down the emptying of the stomach and stimulates the release of bile from the gall bladder • Peptide YY (PYY) is produced in the last part of the small intestine known as the ileum as well as parts of the large intestine. It plays a role in slowing down the passage of food along the gut, which increases the efficiency of digestion and nutrient absorption after meal • Glucagon-like peptide 1 (GLP-1) is produced in the small intestine and colon and has multiple actions including inhibition of gastric emptying and appetite as well as the stimulation of insulin release. **NB Candidates may focus on one particular aspect of the relationship (e.g. glucose management by both endocrine and digestive systems) and be awarded credit.** Accept other suitable responses.	

2 (c)	**Discuss the endocrine system in relation to hormonal control.** **Level 3 – 5–6** Application of knowledge is appropriate and accurate and shows clear understanding of the endocrine system and hormonal control. Analysis to demonstrate understanding of the endocrine system and hormonal control is detailed and highly effective, with clearly reasoned consequences. Clear links are made. **Level 2 – 3–4** Application of knowledge is mostly appropriate, showing some clear understanding of the endocrine system and hormonal control. There may be a few errors. Analysis to demonstrate understanding of the endocrine system and hormonal control is effective and mostly relevant, with simplistic consequences. Some clear links are made.	**6** **AO2=3** **AO3=3**

1	**1–2**	Application of knowledge is limited and may show a lack of understanding of the endocrine system and hormonal control. There may be a number of errors. Analysis to demonstrate understanding of the endocrine system and hormonal control lacks detail and may have limited effectiveness and relevance. Links may be made but are often inappropriate.
	0	No creditworthy material.

Indicative content

- The endocrine system is made up of a network of glands
- Endocrine glands release hormones into the bloodstream
- The endocrine hormones help control mood, growth and development, the way our organs work, metabolism and reproduction
- The hypothalamus links the endocrine system and nervous system
- The hypothalamus gathers information sensed by the brain and sends it to the pituitary gland
- The pituitary gland is often called the 'master gland' as the hormones it makes control many other endocrine glands
- Other significant glands include the thyroid, parathyroid, adrenal, pineal body, the ovaries, the testes and the pancreas
- These glands produce different types of hormones that evoke a specific response in other cells, tissues and/or organs located throughout the body.

NB Candidates may provide detailed discussion regarding particular hormones in relation to endocrine control and be awarded credit.

Accept other suitable responses.

2 (d)	**Identify the gland located in the neck of humans** and **discuss the function of the hormones this gland produces.** Award **one (1)** mark for correct identification. • Thyroid (1). Award up to **three (3)** marks for an appropriate discussion. • Thyroid hormones are thyroxine and calcitonin (1) • The thyroid hormones increase the basal metabolic rate (1)	**4** **AO1=1** **AO3=3**

	• The hormones increase the rate and strength of the heartbeat (1) • Increase the growth rate of young people (1) • Sexual function, including libido and the maintenance of a normal menstrual cycle, are influenced by thyroid hormones (1). Accept other suitable responses.	

3 (a)	**Capillaries are microscopic blood vessels in the human body.** **Discuss the function of capillaries.** Award up to **three (3)** marks for an appropriate discussion. **3 marks** – The discussion is appropriate and accurate and shows clear understanding of the function. **2 marks** – The discussion is mostly appropriate showing some understanding of the function. **1 mark** – The discussion is limited and lacks understanding of the function. **0** – No creditworthy material • They are the smallest blood vessels in the body • They convey blood between the arterioles and venules • The capillary wall performs an important function by allowing nutrients and waste substances to pass across it. This process is called diffusion • They are the site of exchange of many substances • Substances which exit the capillary include water, oxygen, and glucose • Substances which enter the capillary include water, carbon dioxide, uric acid, lactic acid, urea and creatinine. Accept other suitable responses.	**3** **AO3=3**

3 (b)	**Measuring blood pressure gives two readings. One of these readings is the systolic blood pressure.** **Name the** other **reading of blood pressure** and **explain the meaning of this reading.** Award **one (1)** mark for correct identification. • Diastolic (1). Award up to **three (3)** marks for an accurate explanation.	**4** **AO1=1** **AO3=3**

	• The time when the heart is in a period of relaxation and dilatation (1) • The minimum arterial pressure during relaxation and dilatation of the ventricles of the heart (1) • In a blood pressure reading, the diastolic pressure is the second number recorded (1) • A normal diastolic blood pressure is lower than 80 (1) • A reading of 90 or higher means you have high blood pressure (1). Accept other suitable responses.	

3 (c) **Analyse the homeostatic mechanism that regulates blood pressure.**

9

AO1=1

AO2=4

AO3=4

Level	Marks	Description
3	**7–9**	A range of relevant knowledge and understanding of the homeostatic mechanism that regulates blood pressure is shown, but may be lacking in sufficient detail, with a few errors. Application of knowledge is appropriate and accurate and shows clear understanding of the homeostatic mechanism that regulates blood pressure. Analysis to demonstrate understanding of the homeostatic mechanism that regulates blood pressure is detailed and highly effective, with reasoned judgements made. Clear links are made.
2	**4–6**	A range of relevant knowledge and understanding of the homeostatic mechanism that regulates blood pressure is shown, but may be lacking in sufficient detail, with a few errors. Application of knowledge is mostly appropriate, showing some clear understanding of the homeostatic mechanism that regulates blood pressure. There may be a few errors. Analysis to demonstrate understanding of the homeostatic mechanism that regulates blood pressure is effective and mostly relevant with simplistic judgements made. Some clear links are made.

1	**1–3**	A range of relevant knowledge and understanding of the homeostatic mechanism that regulates blood pressure is shown, but may be lacking in sufficient detail, with a few errors. Application of knowledge is limited and may show a lack of understanding of the homeostatic mechanism that regulates blood pressure. There may be a number of errors. Analysis to demonstrate understanding of the homeostatic mechanism that regulates blood pressure lacks detail and may have limited effectiveness and relevance. Links may be made but are often inappropriate.
	0	No creditworthy material.

Indicative content

- The cardiovascular centre forms part of the autonomic nervous system
- The cardiovascular centre is located in the medulla oblongata
- Baroreceptors are specialised stretch receptors located within thin areas of blood vessels
- They send impulses to the cardiovascular centre to regulate blood pressure (BP)
- When blood pressure increases, the baroreceptors are stretched more tightly
- Parasympathetic fibres (vagus nerve) versus sympathetic response (decrease and increase of BP)
- Baroreceptors then initiate action potentials at a higher rate
- When blood pressure decreases the degree of stretch is lower and the rate of firing is slower
- Blood pressure is controlled chemically through dilation or constriction of the blood vessels by vasodilators and vasoconstrictors
- Constriction or dilation of blood vessels alters resistance, increasing or decreasing blood pressure respectively
- Vasoconstriction results from increased concentration of calcium (Ca2+) ions within vascular smooth muscle.

Accept other suitable responses.

3 (d)	**Blood is made up of** four (4) **components.** **Three of these are shown in the table below.** **Complete the table below to identify the fourth component.** White blood cells | Platelets Red blood cells | Award **one (1)** mark for: • Plasma (1).	**1** **AO1=1**

3 (e)	**Describe the structure** and **function of the component you identified in 3 (d).** Award up to **three (3)** marks for an appropriate description. • Clear, straw-coloured liquid portion of blood (1) • It is the single largest component of human blood (1) • Composed of 90% water (1) • Involved in the transport of nutrients, hormones and proteins to where they are needed in the body • Involved in clotting blood and fighting diseases (1) • Normally holds the blood cells in whole blood in suspension (1). Accept other suitable responses.	**3** **AO2=3**

4 (a)	**The autonomic nervous system is comprised of two main systems. One system is the sympathetic nervous system.** **Identify the** other **system** and **explain its function.** Award **one (1)** mark for correct identification. • Parasympathetic (1). Award up to **three (3)** marks for an accurate explanation. • Responsible for stimulation of 'rest and digest' or 'feed and breed' (1) • Occurs after eating (1), sexual arousal (1), salivation (1), crying (1), urination (1), digestion (1) and defecation (1) • Significant in production of erections in males (1) • Prepares females for intercourse by stimulating production of vaginal fluids (1). Accept other suitable responses.	**4** **AO1=1** **AO2=3**

4 (b)	**Analyse the function of the spinal reflex arc.** **Level** / **Marks** / **Description** **3** / **5–6** / Application of knowledge is appropriate and accurate and shows clear understanding of the spinal reflex arc. Analysis to demonstrate understanding of the spinal reflex arc is detailed and highly effective, with clearly reasoned consequences. Clear links are made. **2** / **3–4** / Application of knowledge is mostly appropriate, showing some clear understanding of the spinal reflex arc. There may be a few errors. Analysis to demonstrate understanding of the spinal reflex arc is effective and mostly relevant, with simplistic consequences. Some clear links are made. **1** / **1–2** / Application of knowledge is limited and may show a lack of understanding of the spinal reflex arc. There may be a number of errors. Analysis to demonstrate understanding of function of the spinal reflex arc lacks detail and may have limited effectiveness and	**6** **AO2=3** **AO3=3**

		relevance. Links may be made but are often inappropriate.
	0	No creditworthy material.

Indicative content

- A reflex arc is a neural pathway that controls a reflex action
- A reflex action is an automatic (involuntary) and rapid response to a stimulus, which minimises any damage to the body from potentially harmful conditions
- There are three main types of neuron: sensory, motor and relay
- The receptor in the skin detects a stimulus (the change in temperature)
- The sensory neuron sends electrical impulses to a relay neuron, which is located in the spinal cord of the CNS
- Relay neurons connect sensory neurons to motor neurons.
- The motor neuron sends electrical impulses to an effector.
- The effector produces a response (eg muscle contracts to move hand away)
- Organisms are able to modify a reflex action and overcome it.

Accept other suitable responses.

4 (c)	**Cell body, dendrites and axon terminals are all components of a neuron.** **Identify** two (2) other **components of a neuron** and **describe** one (1) **of these components.** Award **one (1)** mark for each correct identification and up to **two (2)** marks for a description of **one** component. • Axon (1) - long, slender projection of a nerve cell (1), conducts electrical impulses known as action potentials away from the nerve cell body (1), transmits information to different neurons, muscles, and glands (1) • Myelin sheath (1) – myelin insulates nerve cell axons (1), increases the speed at which information travels from one nerve cell body to another (1), does not form a single long sheath over the entire length of the axon (1). Accept other suitable responses.	**4** **AO1=2** **AO2=2**

4 (d)

Impulses travel along nerve pathways via synaptic transmission.

Discuss synaptic transmission.

6

AO2=3

AO3=3

Level	Marks	Description
3	**5–6**	Application of knowledge is appropriate and accurate and shows clear understanding of synaptic transmission. Analysis to demonstrate understanding of synaptic transmission is detailed and highly effective, with clearly reasoned consequences. Clear links are made.
2	**3–4**	Application of knowledge is mostly appropriate, showing some clear understanding of synaptic transmission. There may be a few errors. Analysis to demonstrate understanding of synaptic transmission is effective and mostly relevant, with simplistic consequences. Some clear links are made.
1	**1–2**	Application of knowledge is limited and may show a lack of understanding of synaptic transmission. There may be a number of errors. Analysis to demonstrate understanding of synaptic transmission lacks detail and may have limited effectiveness and relevance. Links may be made but are often inappropriate.
	0	No creditworthy material.

Indicative content

- Synaptic transmission is the process by which one neuron communicates with another
- Chemical synaptic transmission involves the release of a neurotransmitter from the pre-synaptic neuron
- Information is passed down the axon of the neuron as an electrical impulse known as action potential
- Once the action potential reaches the end of the axon it needs to be transferred to another neuron or tissue
- At the end of the neuron are the synaptic vesicles, which contain chemical messengers, known as neurotransmitters
- When the electrical impulse reaches these synaptic vesicles, they release their contents of neurotransmitters
- Neurotransmitters then carry the signal across the synaptic gap

	• They bind to receptor sites on the post-synaptic cell, thereby completing the process of synaptic transmission. Accept other suitable responses.	

5 (a)	**Physiological measurements that may be a cause for concern must be recorded.** **Identify** three (3) **appropriate individuals that these measurements should be reported to.** Award up to **three (3**) marks for a correct answer. • Manager (1) • Doctor (1) • Senior nurse (1) • Supervisor (1). Accept other suitable responses.	**3** **AO1=3**

5 (b)	**Cardiac is a type of muscle.** **Identify** two (2) **other types of muscle** and **explain the function of** one (1) **of these muscle types**. Award up to **two (2)** marks for each correct identification and up to a further **two (2)** marks for an accurate explanation of the function. • Smooth/visceral (1) – Involuntary (1) – Muscle contractions assist the digestive system (peristalsis) (1) – In the uterus these contractions assist with childbirth (1) – In the bladder these contractions assist with pushing out urine (1). • Skeletal (1) – Under voluntary control (1) – Move bones (1) – Provide support for skeletal system (1) – Protect bones and internal organs (1). Accept other suitable responses.	**4** **AO1=2** **AO2=1** **AO3=1**

5 (c) **Analyse the relationship between the structure** and **function of the organ systems.**

9

AO1=1

AO2=4

AO3=4

Level	Marks	Description
3	**7–9**	A wide range of relevant knowledge and understanding of the relationship between the structure and function of organ systems is shown, which is accurate and detailed. Application of knowledge is appropriate and accurate and shows clear understanding of the relationship between the structure and function of organ systems. Analysis to demonstrate understanding of the relationship between the structure and function of organ systems is detailed and highly effective, with reasoned judgements made. Clear links are made.
2	**4–6**	A range of relevant knowledge and understanding of the relationship between the structure and function of organ systems is shown, but may be lacking in sufficient detail, with a few errors. Application of knowledge is mostly appropriate, showing some clear understanding of the relationship between the structure and function of organ systems. There may be a few errors. A limited range of relevant knowledge and understanding of the relationship between the structure and function of organ systems is shown, but is often fragmented
1	**1–3**	A range of relevant knowledge and understanding of the relationship between the structure and function of organ systems is shown, but may be lacking in sufficient detail, with a few errors. Application of knowledge is limited and may show a lack of understanding of the relationship between the structure and function of organ systems. There may be a number of errors. Analysis to demonstrate understanding of the relationship between the structure and function of organ systems lacks detail and may have limited effectiveness and relevance.

		Links may be made but are often inappropriate.
	0	No creditworthy material

Indicative content

- Cells:
  - basic building blocks of all tissues
  - a cell is the smallest unit of life
  - inside cells are various structures that are specialised to carry out a particular function.
- Organelles:
  - microscopic components of cells
  - an organelle performs specific functions within a cell
  - organelles are embedded within the cytoplasm of eukaryotic and prokaryotic cells.
- Tissues:
  - tissues are groups of cells that have a similar structure and act together to perform a specific function
  - the cells in a tissue are not identical
  - there are four different types of tissues in animals: connective, muscle, nervous, and epithelial.
- Organs:
  - collection of tissues that form a similar function
  - an organ is made of several types of tissue and therefore several types of cells
  - organs are the body's recognisable structures.
- Organ systems:
  - two or more organs working together for a specific function
  - each organ system also depends, directly or indirectly, on all the others
  - the failure of even one organ system could lead to severe disability or even death.

NB Candidates may discuss specific organ systems and how the structure of organs within these systems assists function and be awarded credit.

Accept other suitable responses.

5 (d)	**The kidneys and urethra are two organs of the excretory system.**	**4** **AO1=2**

	Identify the two (2) other **organs of the excretory system** and **briefly describe the structure and function of** one (1) **of these organs**. Award **one (1)** mark for each correct identification and up to **two (2)** marks for a description of one organ. • Bladder (1) – receives urine from ureter (1), stores urine (1), passes urine out via urethra (1) • Ureter (1) – a duct or tube (1), receives urine from the kidneys, (1) passes urine to the bladder (1).	**AO2=2**

Assessment Objective Grid

Question	AO1	AO2	AO3	Total
1(a)	1			1
1(b)		4		4
1(c)	2	5	5	12
1(d)	1	2		3
				20
2(a)	1	3		4
2(b)		3	3	6
2(c)		3	3	6
2(d)	1		3	4
				20
3(a)			3	3
3(b)	1		3	4
3(c)	1	4	4	9
3(d)	1			1
3(e)		3		3
				20
4(a)	1	3		4
4(b)		3	3	6
4(c)	2	2		4
4(d)		3	3	6
				20
5(a)	3			3
5(b)	2	1	1	4
5(c)	1	4	4	9
5(d)	2	2		4
				20
Total	**20**	**45**	**35**	**100**