

# CHCCCS041

# Recognise healthy body systems 1a of 3

# **Short Answer Questions**



# **Assessment Details**

This section is for SUT VE Quality and Compliance review and feedback and must be deleted in the student version of the assessment.

| SECTION 1                                 |  |                    |
|---|--|--------------------|
| UNIT OF COMPETENCY DETAILS                |  |                    |
| Code                                      | Title  |                    |
| CHCCCS041                                 | Recognise healthy body systems                 |                    |
| COURSE AND MODULE DETAILS                 | 1  |                    |
| Assessments may be published in more thar | n one course. Add lines for additional courses | s as needed.       |
| Course Code (UPed)                        | Module Number (Order)                          | Module Code (UPed) |
| SOE3IS11A                                 | 4  | M00272A            |
|   |  |                    |
|   |  |                    |
| ASSESSMENT TYPE                           |  |                    |
| Assessment Method: Written Assess         | ment Choose an item. Choose an ite             | m.                 |
| Select all that apply.                    |  |                    |

# SECTION 2

#### STUDENT INSTRUCTIONS

The following instructions detail the requirements of the assessment and are captured in the LMS assessment page. This includes a description of the student instructions, associated files and submission instructions.

#### Student instructions

This is assessment 1a of 3 for CHCCCS041 Recognise healthy body systems.

This assessment requires you to answer 32 questions to test your knowledge and understanding required of this unit.

To be assessed as competent, you must complete all tasks in the spaces required.

You are required to download your assessment by clicking on the assessment document icon below (see Let's begin) and upload your completed assessment for submission.

#### Supporting documents

To answer some of the questions, you will need to access the following documents:

#### N/A

#### Files for submission

Submit the assessment document with all tasks completed in the spaces provided.

Submit the following files:

• Assessment document



#### Submission instructions

#### PDF File Submissions

#### Please save all Word documents as PDF files before submitting.

**IMPORTANT**: Word documents will **not** be accepted.

Most modern web browsers can open and display a PDF file. If you have an older operating system, however, you may need a PDF reader installed on your device such as the Acrobat Reader, available from Adobe.

Windows: Word 2013 and newer

Choose File > Export > Create PDF/XPS.

Windows: Word 2010

Click the **File** tab Click **Save As** To see the Save As dialog box in Word 2013 and Word 2016, you have to choose a location and folder In the **File Name** box, enter a name for the file, if you haven't already In the **Save** as type list, click **PDF** (\*.pdf). If you want the file to open in the selected format after saving, select the Open file after publishing check box. If the document requires high print quality, click Standard (publishing online and printing). If the file size is more important than print quality, click Minimum size (publishing online). Click **Options** to set the page to be printed, to choose whether markup should be printed, and to select output options. Click **OK** when finished. Click **Save**.

macOS: Office for Mac

To save your file as a PDF in Office for Mac follow these easy steps:

Click the **File** Click **Save As** Click **File Format** towards the bottom of the window Select **PDF** from the list of available file formats Give your file a name, if it doesn't already have one, then click **Export** 

For more detailed instructions refer to Microsoft Support.

#### **SECTION 3**

ASSESSMENT TASK CRITERIA AND OUTCOME

This assessment will be graded as Satisfactory (S) or Unsatisfactory (US).

To achieve Satisfactory; valid, sufficient, authentic, and current evidence of meeting the criteria must be submitted.

Refer to the mapping spreadsheet for details for this unit.

#### **SECTION 4**

ASSESSMENT DETAILS

Please refer to SECTION 2 to confirm how the assessment tools will be built and the methods that will be used to collect evidence i.e., Student's will type answers directly into LMS or will upload of files of completed assessment tasks.

The STUDENT INSTRUCTIONS above will be added directly into the LMS.



All associated files will be accessed via the LMS, as will any Assessor Guides, Matrix, Templates etc.

Students and Assessors have restricted permissions in the LMS. Assessor Guides, including model answers, will be available to Assessors ONLY.

The following pages contain the draft assessment which will be built into the LMS once reviewed. This includes:

 $\boxtimes$  Instructions to students

- $\boxtimes$  Questions /tasks
- ⊠ Templates /tables where applicable
- □ Links to supporting files /websites
- ⊠ Instructions to assessors
- Sample answers /examples of benchmark answers

# **SECTION 5**

| STAKEHOLDERS AND SIGN OFF                                    |          |
|--|----------|
| List all that apply for each of the stakeholder roles below. |          |
| UPed Learning Designer/Author name                           | EduWorks |
| SOE Quality and Compliance Manager name                      |          |
| SUT VE Quality Compliance name                               |          |
| Date approved  |          |



#### **Assessment Instructions**

#### **Task overview**

This assessment task is divided into 32 questions. Read each question carefully before typing your response in the space provided.





#### Submission

You are entitled to three (3) attempts to complete this assessment satisfactorily. Incomplete assessments will not be marked and will count as one of your three attempts.

All questions must be responded to correctly to be assessed as satisfactory for this assessment.

Answers must be typed into the space provided and submitted electronically via the LMS. Hand-written assessments will not be accepted unless previously arranged with your assessor.

#### **Reasonable adjustment**

Students may request a reasonable adjustment for assessment tasks.

Reasonable adjustment usually involves varying:

- the processes for conducting the assessment (e.g. allowing additional time)
- the evidence gathering techniques (e.g. oral rather than written questioning, use of a scribe, modifications to equipment)

However, the evidence collected must allow the student to demonstrate all requirements of the unit.

Refer to the Student Handbook or contact your Trainer for further information.

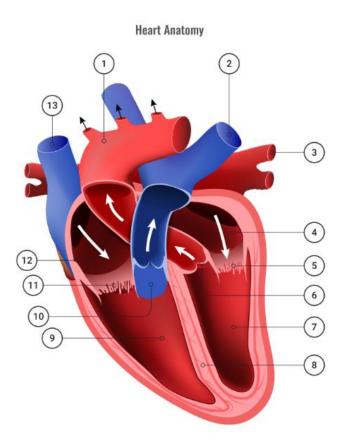


Please consider the environment before printing this assessment.



Complete the table below and identify the parts of the cardiovascular system to their numbered location on the diagram.

**Assessor instructions:** Student must be able to show their understanding of the components of the cardiovascular system. Student answers must match the benchmark answer provided below.



| Cardiovascular System |                    |  |
|-----------------------|--------------------|--|
| 1.                    | Aorta              |  |
| 2.                    | Pulmonary artery   |  |
| 3.                    | Pulmonary vein     |  |
| 4.                    | Left atrium        |  |
| 5.                    | Mitral valve       |  |
| 6.                    | Aortic valve       |  |
| 7.                    | Left ventricle     |  |
| 8.                    | Septum             |  |
| 9.                    | Right ventricle    |  |
| 10.                   | Pulmonary valve    |  |
| 11.                   | Tricuspid valve    |  |
| 12.                   | Right atrium       |  |
| 13.                   | Superior vena cava |  |

# **Question 2**

Explain how blood flows through the heart. (Word count: Approximately 80-100 words)



**Assessor instructions:** Student must be able to explain how blood flows through the heart. Benchmark standards of student responses are provided below. Student's wording may vary however must reflect the benchmark answer provided.

Blood enters heart through the inferior and superior vena cava into the right atrium. The atrium contracts and passes the blood into the right ventricle. When the ventricle contracts the blood goes through the pulmonic valve into the pulmonary artery and to the lungs to be oxygenated (the blue arrows).

The pulmonary veins empty oxygen rich blood into the left atrium. The atrium contracts and blood goes into the left ventricle. When this is full the mitral valve shuts and blood leaves the heart into the aorta.

#### **Question 3**

Describe the functions of the cardiovascular system. (Word count: Approximately 30-50 words)

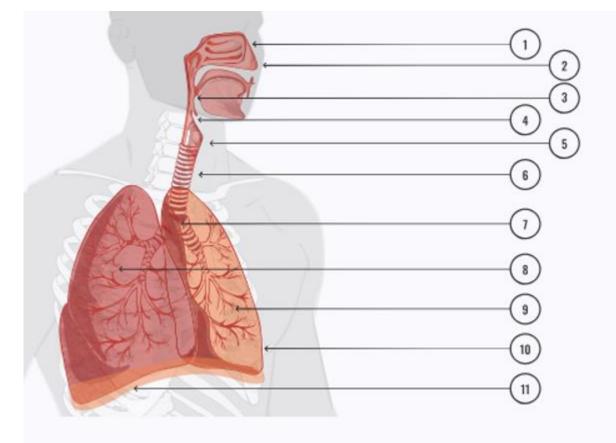
**Assessor instructions:** Student must be able to describe the functions of the cardiovascular system. Benchmark standards of student responses are provided below. Student's wording may vary however must reflect the benchmark answer provided.

The cardiovascular system comprises the heart, blood and blood vessels (arteries and veins). The system circulates blood around the body and transports nutrients, oxygen, carbon dioxide, hormones and blood cells to and from all of the cells.



Complete the table below and identify the parts of the respiratory system to their location numbered on the diagram.

**Assessor instructions:** Student must be able to show their understanding of the components of the respiratory system. Student answers must match the benchmark answer provided below.



|     | Respiratory System |  |  |
|-----|--------------------|--|--|
| 1.  | Nasal cavity       |  |  |
| 2.  | Nostril            |  |  |
| 3.  | Epiglottis         |  |  |
| 4.  | Pharynx            |  |  |
| 5.  | Larynx             |  |  |
| 6.  | Trachea            |  |  |
| 7.  | Primary bronchus   |  |  |
| 8.  | Right lung         |  |  |
| 9.  | Pleural cavity     |  |  |
| 10. | Left lung          |  |  |
| 11. | Diaphragm          |  |  |



Describe the functions of the respiratory system. (Word count: Approximately 60-80 words)

**Assessor instructions:** Student must be able to describe the functions of the respiratory system. Benchmark standards of student responses are provided below. Student's wording may vary however must reflect the benchmark answer provided.

The main purpose of the respiratory system is to supply oxygen to the blood and remove carbon dioxide. This is done through the process of breathing. Oxygen passes into the lungs into the alveoli where it diffuses into the blood. Carbon dioxide is transferred from the veins back into the lungs where it is breathed out to expel from the body.

# **Question 6**

Identify the three (3) main parts of the muscular system and briefly explain the purpose of each. (Word count: Approximately 20 words in total)

**Assessor instructions:** Students must identify three (3) parts of the muscular system and correctly explain their purpose. Benchmark standards of student responses are provided below. Student's wording may vary however must reflect the benchmark answer provided

|    | Part of muscular system (one word) | <b>Purpose</b> (approx. 10-15 words)           |
|----|------------------------------------|--|
| 1. | Muscles                            | Production of force and motion; maintenance of |
|    |                                    | posture and body position.                     |
| 2. | Ligaments                          | Connect bone to bone; assist in avoiding       |
|    |                                    | unwanted or damaging movement.                 |
| 3. | Tendons                            | Connect muscles to bone; transmit mechanical   |
|    |                                    | force of muscle contraction to the bones.      |

# **Question 7**

Describe the functions of the musculoskeletal system. (Word count: Approximately 40 words in total)

**Assessor instructions:** Students must demonstrate an understanding of the musculoskeletal system. Benchmark standards of student responses are provided below. Student's wording may vary however must reflect the benchmark answer provided

The skeletal part of the system (bones and joints) provides the structure of the body and is the storage system for calcium and minerals. Marrow formed in the bones contains the products for blood cell manufacture. Joints join bones together to allow movement.

#### **Question 8**

Complete the following table in relation to the location of the glands from the endocrine system. Explain the purpose of each gland.

**Assessor instructions:** Students must complete the table below. Benchmark standards of student responses are provided below. Student's wording may vary however must reflect the benchmark answer provided



| Hypothalamus        | Lower central part of brain; links the nervous system to the endocrine system.  |
|---------------------|---|
| Pituitary gland     | Base of the brain; below the hypothalamus; produce<br>critical hormones and controls several other hormone<br>glands.                             |
| Thyroid gland       | Lower front part of neck; controlled by the<br>hypothalamus and pituitary gland; regulates vital body<br>functions such as the body's metabolism. |
| Parathyroid glands  | Surface of the thyroid gland; control calcium levels in the body.   |
| Adrenal glands      | Top of each kidney; produce hormones such as adrenaline, cortisol and aldosterone.  |
| Pineal gland        | Deep in the centre/middle of the brain; produce melatonin, which assists in modulating sleep patterns.  |
| Reproductive glands | Testes in the male scrotum; ovaries on both sides of<br>uterus in women; produce sex cells and sex hormones,<br>such as sperm and egg cells.      |
| Pancreas            | Behind the stomach, assists in food digestion and creation of insulin, controlling blood sugar levels.  |

Describe the function of the endocrine system. (Approximately 50 words)

**Assessor instructions**: Students must demonstrate an understanding of the endocrine system. Benchmark standards of student responses are provided below. Student's wording may vary however must reflect the benchmark answer provided

The main function of the endocrine system is to secrete hormones into the bloodstream and tissues. The endocrine, nervous and immune systems work together to assist the body to deal with stresses and events. The endocrine system produces various different hormones to allow for:

- growth
- repair
- sexual reproduction
- digestion
- homeostasis



Explain the two (2) different parts of the nervous system and explain their function.

**Assessor instructions**: The student's response shows that they understand the two parts of the nervous system and their functions. Benchmark standards of student responses are provided below. Student's wording may vary however must reflect the benchmark answer provided

| Part of nervous system (3 words per section) | Function (approximately 20 words per section)  |
|--|--|
| Central nervous system                       | Brain and spinal cord. It controls most functions of<br>the mind and body. It integrates and responds to<br>sensory information.   |
| Peripheral nervous system                    | Sensory neurons, nerves and ganglia. It connects<br>the central nervous system (brain and spinal cord)<br>to the rest of the body. |

#### **Question 11**

a) Describe the three (3) main functions of the nervous system. (Approximately 40-50 words)

**Assessor instructions**: Students must demonstrate an understanding of the nervous system. Benchmark standards of student responses are provided below. Student's wording may vary however must reflect the benchmark answer provided

- Sensory function: Gathering information from inside the body and the outside environment and carrying the information to the central nervous system (brain and spinal cord)
- Interpretative function: Processing and interpreting information
- Motor function: Passing information from the central nervous system to muscles and glands (motor nerves).



b) How do changes in the eye and ear sensory systems affect individuals in aged care and what can be done to mitigate these changes? (Approximately 100-120 words)

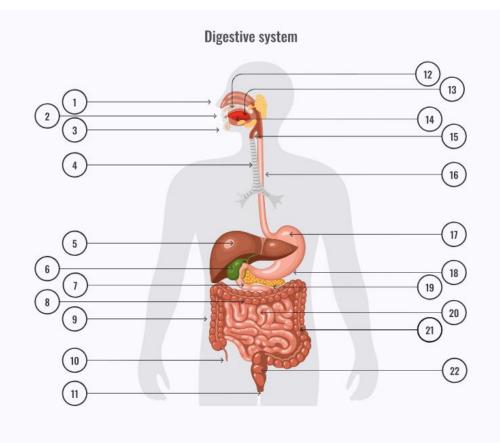
**Assessor instructions**: Students must demonstrate an understanding of the sensory system. Benchmark standards of student responses are provided below. Student's wording may vary however must reflect the benchmark answer provided

As individuals age, changes in their sensory systems can lead to decreased visual and auditory acuity, increased sensitivity to glare and noise, and reduced colour vision and contrast sensitivity. These changes can have a significant impact on daily activities, such as reading, driving, and communicating with others. In aged care, it is important to address these changes to improve the quality of life for elderly individuals. This can be done through the use of adaptive devices, such as magnifiers and hearing aids, environmental modifications, such as good lighting and soundproofing, and rehabilitation and training programs.



Complete the table below to identify the parts of the digestive system to their numbered location on the diagram

**Assessor instructions:** Student must be able to show their understanding of the components of the digestive system. Student answers must match the benchmark answer provided below.



|     | Digestive System |     |                     |  |
|-----|------------------|-----|---------------------|--|
| 1.  | Nose             | 12. | Hard palate         |  |
| 2.  | Lips             | 13. | Genioglossus muscle |  |
| 3.  | Hyoid bone       | 14. | Tongue              |  |
| 4.  | Trachea          | 15. | Thyroid cartilage   |  |
| 5.  | Liver            | 16. | Oesophagus          |  |
| 6.  | Duodenum         | 17. | Stomach             |  |
| 7.  | Pancreas         | 18. | Spleen              |  |
| 8.  | Transverse colon | 19. | Transverse colon    |  |
| 9.  | Ascending colon  | 20. | Small intestine     |  |
| 10. | Appendix         | 21. | Large intestine     |  |
| 11. | Anus             | 22. | Rectum              |  |



Describe the function of the digestive system, including how waste is removed from the body. (Approximately 130-140 words)

**Assessor instructions**: Students must demonstrate an understanding of the functions and how waste is removed from the digestive system. Benchmark standards of student responses are provided below. Student's wording may vary however must reflect the benchmark answer provided.

The digestive system processes food so that nutrients can be used throughout the body. This is done through conversion of food into glucose, amino acids and fatty acids. These are absorbed into the bloodstream from the small intestine and distributed to each cell in the body.

Food is chewed in the mouth and swallowed where it passes into the stomach. In the stomach the food is mixed with gastric enzymes and hydrochloric acid. From there it passes into the small intestine where the food is broken down further. Bile is produced by the liver and enzymes are produced by the pancreas, which break down food in the small intestine. Peristalsis moves food down the intestines through rhythmic contraction. In the large intestine (colon) water is absorbed. The matter is removed from the body through the anus as faeces.

# **Question 14**

Identify the four (4) main parts of the urinary system and provide a brief explanation of the function of each.

| Part Function (word count 20 - 40 words) |   |
|--|---|
| Kidneys                                  | Extract waste and toxins, clean the blood, create urine from excess fluid and unwanted waste; connected to the bladder by ureters   |
| Bladder                                  | Stores urine, which travels via the ureters from the kidneys to the bladder; the muscles of the bladder will contract to squeeze urine out, and the sphincter opens to release the urine. |
| Ureters                                  | The tubes from which urine passes from the kidneys to the bladder.  |
| Urethra                                  | The urethra carries urine to outside the body from the bladder;<br>the urethra in females is shorter than that of the male; the male<br>urethra is used for both urine and ejaculation.   |

**Assessor instructions**: Students must demonstrate an understanding of the four main parts of the urinary system. Benchmark standards of student responses are provided below. Student's wording may vary however must reflect the benchmark answer provided

# **Question 15**

Describe the function of the urinary system as a whole, including its role in regulating fluid and electrolyte balance in the body. (Word count: Approximately 150 words in total)

**Assessor instructions**: Students must demonstrate an understanding of the function of the urinary system. Benchmark standards of student responses are provided below. Student's wording may vary however must reflect the benchmark answer provided



The urinary system removes waste products from the body and maintains fluid and salt balance. The kidneys sieve the blood (almost 200 litres per day) to filter out waste products and regulate fluid and salt. The kidneys also produce a hormone that assists in controlling blood pressure. Urine, which contains the waste products, is passed into the bladder through the ureters. The urine is then expelled from the body through the urethra.

Fluid balance is maintained by the kidneys regulating water consumed (and metabolised) and water excreted to keep these in balance. If there is insufficient water in the body urine production will be reduced. If there is a large amount of water in the body urine production will increase.

The main electrolytes are sodium, potassium, calcium, phosphorus and magnesium. The kidneys detect the volume of these. If an electrolyte is too high the kidneys will increase excretion or retain fluid to keep it in balance.

# **Question 16**

a) Identify the five (5) main parts of the female reproductive system and provide a brief explanation of their function. (Word count: Approximately 100 - 120 words)

b) Identify the three (3) main parts of the male reproductive system and provide a brief explanation of their function.

(Word count: Approximately 30 - 50 words)

**Assessor instructions**: The student must demonstrate understanding of the female and male reproductive systems. Benchmark standards of student responses are provided below. Student's wording may vary however must reflect the benchmark answer provided

- a)
- Ovaries: produce ova (egg cells); also produce oestrogen and progesterone, which are the reproductive hormones.
- Fallopian tubes: connect the ovaries and uterus; transport ova to the uterus each month.
- Uterus: major reproductive organ, contains some of the strongest muscles in the human body; the uterus is where a fetus grows during pregnancy.
- Cervix: allows blood to pass from the uterus to the vagina duration menstruation; directs sperm to the uterus during intercourse; opens during childbirth to allow the baby to pass down to the vagina.
- Vagina: canal that leads from the uterus to the outside of the body; function is for sexual intercourse, the birth canal, and the route by which menstruation blood is removed from the body.

b)

- Penis: removes urine from the body; works with other parts of the male reproductive system to release semen into the female reproductive system during intercourse.
- Scrotum: holds and protects the testicles and regulates temperature.
- Testicles: produce sperm and androgens, such as testosterone.



Describe the function of the human reproductive system. (Word count: Approximately 80 - 100 words)

**Assessor instructions**: Students must describe the function of the human reproductive system. Benchmark standards of student responses are provided below. Student's wording may vary however must reflect the benchmark answer provided

The purpose of the reproductive system is to allow the procreation of life. The main system produces sperm in the testes. Sperm is transferred to the female reproductive system through the penis into the vagina and uterus usually through the process of sexual intercourse. Female ovaries produce eggs (generally one per month) which pass down the fallopian tubes. If the egg is not fertilized it is eliminated through menstruation. If the sperm fertilizes the egg, it implants in the lining of the uterus and forms an embryo and later a foetus. Birth occurs approximately 40 weeks after fertilisation.

#### **Question 18**

Describe the function of the integumentary system. (Word count: Approximately 50 - 60 words)

**Assessor instructions**: Students must describe the function of the integumentary system. Benchmark standards of student responses are provided below. Student's wording may vary however must reflect the benchmark answer provided.

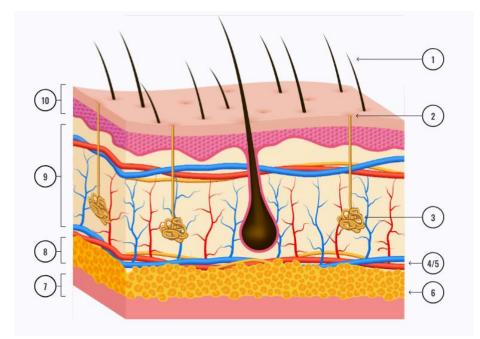
The integumentary system is the largest organ in the human body. It consists of skin, hair, nails, glands and nerve receptors. The main functions of the integumentary system are to protect the body from infection and disease, storage of water, fat, glucose and Vitamin D, regulate body temperature, eliminate waste products, protect from UV radiation and sunburn.

#### **Question 19**

In the table below, identify the parts of the integumentary system to their numbered location on the diagram.

**Assessor instructions:** Student must be able to show their understanding of the components of the integumentary system. Student answers must match the benchmark answer provided below.





|    | Integumentary system |     |                    |  |
|----|----------------------|-----|--------------------|--|
| 1. | Hair                 | 6.  | Adipose tissue     |  |
| 2. | Sweat pore           | 7.  | Subcutaneous layer |  |
| 3. | Sweat gland          | 8.  | Hypodermis         |  |
| 4. | Vein                 | 9.  | Derma              |  |
| 5. | Artery               | 10. | Epidermis          |  |

Identify the three layers of tissue of human skin. (Word count: Approximately 5 words in total)

**Assessor instructions**: The student must clearly identify each of the three layers. Student answers must match the benchmark answer provided below.

| Top Layer     | Epidermis  |
|---------------|------------|
| Middle Layer  | Dermis     |
| Deepest Layer | Hypodermis |

# **Question 21**

Describe the function of the lymphatic system. In your response, identify the six lymphatic organs.

(Word count: Approximately 50 - 60 words in total)

**Assessor instructions**: The Student must describe the function of the lymphatic system including the six (6) organs. Benchmark standards of student responses are provided below. Student's wording may vary however must reflect the benchmark answer provided.



The lymphatic system collects and transports tissue fluids back into the veins. It returns plasma to the bloodstream. Bacteria and microbes are collected in the fluid and taken to the lymph nodes where white blood cells attack and destroy them.

The six lymphatic organs are the thymus, bone marrow, spleen, lymph nodes, tonsils, appendix.

# **Question 22**

Describe how each of the following functions occur in the human body. (Word count: Approximately 20 - 90 words per section)

**Assessor instructions**: The Student must describe the function of each term in the table. Benchmark standards of student responses are provided below. Student's wording may vary however must reflect the benchmark answer provided.

| Smell       | Olfactory nerves in the nose are stimulated by gases<br>inhaled when breathing. Nerves stimulate the<br>olfactory bulb which transmits messages to the<br>smell cortex in the brain.   |
|-------------|--|
| Taste       | Taste papillae are located in the tongue and other<br>areas of the mouth and throat. These papillae<br>contain several taste buds with sensory cells. Taste<br>signals are transferred to the nervous system via the<br>cranial nerves to the brain.   |
| Vision      | Light passes through the cornea of the eye. The iris<br>contracts and expands to let in the level of light<br>depending on the environment (that is, whether it is<br>light or dark). A lens in the eye focuses the light rays<br>on the retina. The retina processes the light rays into<br>light impulses through nerve endings – these are<br>passed to the optic nerve which transmits the<br>message to the brain.  |
| Equilibrium | Equilibrium is our balance system. This keeps us<br>upright when walking and prevents us from falling.<br>The main balance system is the three semi-circular<br>canals in the inner ear. These contain fluid and<br>sensors to detect movement of the head. Sensory<br>hair cells are activated by movement of the fluid –<br>these send messages to the brain through the<br>acoustic nerve – these inform the brain of where the<br>body is in space, and whether the body is moving.<br>The eyes (sight) and skin (touch) also play a role in<br>balance. |
| Hearing     | The outer ear directs sound waves into the inner<br>ear. Sound waves pass down the auditory canal to<br>the eardrum which vibrates. Sound waves are<br>carried by the auditory ossicle bones to the cochlea<br>in the inner ear. This causes the fluid in the cochlea<br>to move. There are thousands of hairs in the inner<br>ear which move with the fluid movement – the hair<br>cells create nerve systems picked up by the auditory   |



|  | nerve. The auditory nerve takes the signals to the brain to be interpreted as sound. |
|--|--|
|--|--|

a) Provide a definition if 'cells'. (Word count: Approximately 40 - 50 words in total)

**Assessor instructions**: The Student must define the term cells. Benchmark standards of student responses are provided below. Student's wording may vary however must reflect the benchmark answer provided.

The smallest structural unit of an organism which consists of cytoplasm and a nucleus enclosed in a membrane. Cells are the building blocks of the human body and convert nutrients from food into energy. There are many different cells of different shapes, sizes and functions.

b) Explain the function of the following cells. (Word count: Approximately 5 - 30 words per section)

**Assessor instructions**: The Student must correctly explain the function of the cells in the table below. Benchmark standards of student responses are provided below. Student's wording may vary however must reflect the benchmark answer provided.

| Mitochondria                             | Mitochondria produce Adenosine triphosphate and regulate cellular metabolism.   |
|--|---|
| Ribosomes                                | Ribosomes are protein builders/synthesisers of cells.   |
| Golgi apparatus                          | The golgi apparatus modifies, sorts and packages proteins and builds lysosomes.   |
| Nucleus                                  | The cell brain. This contains most of a cell's genetic material (DNA) and coordinates the growth, metabolism, protein synthesis and reproduction of the cell.               |
| Lysosomes                                | Aid in digestion and waste removal within a cell. This includes food, organelles, food particles etc.   |
| Endoplasmic reticulum (smooth and rough) | Involved in protein and lipid synthesis. Rough ER has<br>ribosomes attached to the surface. Smooth ER is<br>involved in the creation and storage of steroids and<br>lipids. |

#### **Question 24**

Identify the four (4) principal types of tissue and briefly explain their function.

**Assessor instructions**: The Student must correctly identify and explain the function of different types of tissue in the table below. Benchmark standards of student responses are provided below. Student's wording may vary however must reflect the benchmark answer provided.



| Type of tissue (1 word) | Function (10 words)   |
|-------------------------|---|
| Epithelial              | covers the skin and blood vessels, and lines body cavities.   |
| Connective              | connects and supports tissues and organs and form the framework for glands and organs.                  |
| Nervous                 | found in the spinal cord, brain and nerves. Nervous tissue assists in interpreting sensory information. |
| Muscle                  | attached to bones, produces movement, heat production and posture maintenance.                          |

List the eleven (11) major organ systems in the human body.

**Assessor instructions***:* The Student must correctly identify the 11 major organ systems. Student answers must match the benchmark answer provided below.

- Integumentary
- Muscular
- Skeletal
- Nervous
- Circulatory
- Lymphatic
- Respiratory
- Endocrine,
- Urinary/excretory
- Reproductive
- Digestive.

#### **Question 26**

a) Describe the function of the immune system. (Word count: Approximately 10 - 20 words in total)

**Assessor instructions**: The Student must describe the function of the immune system. Benchmark standards of student responses are provided below. Student's wording may vary however must reflect the benchmark answer provided.

To protect the body from outside organisms and substances that may invade the body and cause disease.

 b) The immune system is broken up into two parts – the innate system and the adaptive immune system. In the following table describe each of these systems. (Word count: Approximately 90 - 110 words in total)

| Innate system | The innate system is the system of immunity that a person is born with. It |
|---------------|--|
|               | includes the physical barriers e.g., skin, mucus membranes, white blood    |
|               | cells (leukocytes) and various chemicals in blood and body fluids          |



| Adaptive immune systemSecond line of defence. Targets pathogens more accurately. The<br>adaptive immune system is built up over time. As this system targets<br>pathogens, it remembers them for next time so that it can respond<br>more quickly. This is why some illnesses can only be felt in the body<br>once (eg chicken pox.) The adaptive system includes:•T lymphocytes•B lymphocytes•Antibodies•Cytokines |
|---|
|---|

c) Suggest four (4) methods of protecting the body from infections. (Approximately 20 words in total)

**Assessor instructions**: The Student must suggest four methods to protect the body from infections. Benchmark standards of student responses are provided below. Student's wording may vary however must reflect the benchmark answer provided.

- Vaccination
- Washing hands
- Sterilised environment (for example, for surgical procedures)
- Anti-biotics
- Using PPE (for example, gloves, masks, aprons and so on)
- Isolation.

# **Question 27**

Explain the importance of food and nutrition to maintain a healthy body. (Word count: Approximately 90 – 110 words in total)

**Assessor instructions**: The Student must describe the importance of food and nutrition. Benchmark standards of student responses are provided below. Student's wording may vary however must reflect the benchmark answer provided.

Eating a healthy and well-balanced diet is essential to good health. The body requires nutrition from each of the five food groups – dairy, fruits, vegetables, meat and grains, beans and legumes. It is important to eat a wide variety of nutritious foods. Water should be drunk several times a day to keep the body hydrated. There needs to be enough kilojoules consumed to maintain a steady, appropriate weight. A diet containing too much fat can lead to stroke, heart disease, diabetes and obesity. Too much sugar may cause tooth decay, liver disease, diabetes and obesity.

# **Question 28**

Explain how the body maintains its temperature when the outside atmosphere is hot and when it is cold. (Word count: Approximately 30 words per section)

**Assessor instructions**: The Student must explain how the body maintains temperature. Benchmark standards of student responses are provided below. Student's wording may vary however must reflect the benchmark answer provided.



| Hot   | Cold  |
|---|---|
| • Hypothalamus detects that body temperature needs to cool and send message to body | • Hypothalamus detects that body temperature needs to rise and send message to body |
| • blood vessels dilate resulting in heat loss to the environment.                   | • Blood vessels constrict to minimise loss of heat from the skin.                   |
| • Sweat is produced to provide an evaporative effect.                               | • Muscles are activated to cause shivering.   |

a) Identify four (4) causes of Electrolyte Imbalance and how you can help to prevent this imbalance. (Word count: Approximately 70 - 90 words in total)

**Assessor instructions**: The Student must identify four causes of electrolyte imbalance. Benchmark standards of student responses are provided below. Student's wording may vary however must reflect the benchmark answer provided.

#### **Responses will vary but may include:**

- Exercise and excessive sweating
- Vomiting and diarrhea
- Dehydration
- Eating disorders and malnutrition
- Some medications
- Excessive alcohol intake
- Heart or kidney disease
- Diabetes

You can help to prevent electrolyte imbalance by providing the following support:

- Help clients to eat a well-balanced diet with plenty of fluids, fruits and vegetables
- Encourage clients to drink more fluid in hot weather
- Report nausea and vomiting and encourage the person to drink small sips of fluid
- Carefully follow fluid restrictions that have been ordered by the resident's or client's doctor
- b) What is another name for pH balance and what is the most suitable pH level for a healthy body? (Word count: Approximately 25-35 words in total)

**Assessor instructions**: The Student must identify the other name for pH balance and the most suitable pH level. Benchmark standards of student responses are provided below. Student's wording may vary however must reflect the benchmark answer provided.

pH balance is also called acid-base balance. It refers to the acid content of your blood. The body functions best with a blood pH level of around 7.4.

# **Question 30**

Describe four (4) ways to lower high blood pressure and to increase low blood pressure. (Word count: Approximately 20 - 30 words per section)



**Assessor instructions**: The Student must identify four ways to maintain blood pressure. Benchmark standards of student responses are provided below. Student's wording may vary however must reflect the benchmark answer provided.

| High blood pressure   | Low blood pressure  |
|---|---|
| <ul> <li>Take blood pressure lowering medication</li> <li>Exercise regularly</li> <li>Eat healthy food options</li> <li>Reduce sodium</li> <li>Limit alcohol</li> <li>Reduce caffeine levels</li> </ul> | <ul> <li>Increase fluid intake</li> <li>Cut out or reduce alcohol</li> <li>Increase salt intake</li> <li>Take care standing from a lying or sitting position</li> <li>Review medications</li> </ul> |

# **Question 31**

Identify the two (2) body systems that support the elimination of waste from the body. (Word count: Approximately 4 words in total)

**Assessor instructions**: The Student must identify two body systems that support the elimination of waste. Benchmark standards of student responses are provided below. Student's wording may vary however must reflect the benchmark answer provided.

- Urinary System
- Digestive system

# **Question 32**

Briefly explain the difference between active and passive physical activity. (Word count: Approximately 30 - 40 words in total)

**Assessor instructions**: The Student must identify the difference between active and passive physical activity. Benchmark standards of student responses are provided below. Student's wording may vary however must reflect the benchmark answer provided.

Active physical activity builds muscle strength, whereas passive activity assists in keeping joints flexible. Active physical activity is performed by the person, whereas passive activity is performed by the person with someone else assisting.



#### **Assessment checklist:**

Students must have completed all questions within this assessment before submitting. This includes:

1 32 questions to be completed in the spaces provided.

#### Congratulations you have reached the end of Assessment 1!

#### © Copyright 2022 Eduworks Pty. Ltd.

All rights reserved. This publication is copyright to Eduworks <u>pty</u> Itd. No part of this publication or its supporting documents may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording or by any information storage and retrieval system, without prior written permission from the publisher.

#### © UP Education Australia Pty Ltd 2022

Except as permitted by the copyright law applicable to you, you may not reproduce or communicate any of the content on this website, including files downloadable from this website, without the permission of the copyright owner.

