

Qualification title: Level 3 Advanced Technical Diploma in
Complementary Therapies (540)
Exam title: 6004-530 & 030 Level 3 Complementary
Therapies - Theory exam (1)
Version: April 2017
Base mark: 60

1.	
Describe the location of each of the following.	
a) The lateral femoral region.	(1 mark)
b) The medial brachial region.	(1 mark)
Answer:	
a)	
1 mark for each of the following, to a maximum of 1 mark:	
• The lateral region of the femoral thigh is located in the outer side of the upper leg.	
b)	
1 mark for each of the following, to a maximum of 1 mark:	
• The medial region of the brachial is located in the inner side of the upper arm.	

2.	
State the location of lysosomes.	(1 mark)
Answer:	
1 mark for each of the following, to a maximum of 1 mark:	
Cytoplasm.	

3.	
Explain the importance of osmosis within cellular function.	(3 marks)
Answer:	
1 mark for each of the following, to a maximum of 3 marks:	
• It distributes nutrients.	
• It aids in the removal of waste products.	
• It maintains cellular homeostasis.	

4.

Explain how extrinsic factors affect the skin.

(4 marks)

Answer:

1 mark each for any of the following, to a maximum of 4 marks:

- Temperature increase will cause vasodilation/the skin to sweat.
- Chemical exposure will cause drying, exfoliating/irritating to the epidermis.
- UV exposure will cause drying/increased pigmentation of the skin / long term exposure will cause premature ageing / overexposure of UV will cause burning of the epidermis.
- Topical stimulation can cause irritation, redness and swelling / increased hair growth.
- Damage to the skin can cause bleeding/infection/swelling/pain.

5.

State one function of the hair.

(1 mark)

Answer:

1 mark each for any of the following, to a maximum of 1 marks:

- Insulation.
- Protection.

6.

Describe the appearance of **each** of the following.

a) Psoriasis.

(1 mark)

b) Hyperkeratosis.

(1 mark)

Answer:

a)

1 mark for each of the following, to a maximum of 1 mark:

- Patches of skin with red plaques and white silvery scales.

b)

1 mark for each of the following, to a maximum of 1 mark:

- Overgrowth of skin within an area.

7.

Explain how the sesamoid bone assists with knee movement.

(2 marks)

Answer:

1 mark for each of the following, to a maximum of 2 marks:

- It sits within a large tendon and acts to stabilise the knee (1) and acts as a pulley during movement (1).

8.

State the **three** bones that form the pelvis.

(3 marks)

Answer:

1 mark each for any of the following, to a maximum of 3 marks:

- Ilium.
- Ischium.
- Pubis.

9.

Explain **each** of the following types of muscle contractions.

a) Eccentric.

(1 mark)

b) Concentric.

(1 mark)

Answer:

a)

1 mark for each of the following, to a maximum of 1 mark:

- Eccentric fibres work in a controlled manner to slow down the movement as the muscle lengthens.

b)

1 mark for each of the following, to a maximum of 1 mark:

- Concentric muscle actions shorten the muscle fibres which create joint movement.

10.

State the action of **each** of the following muscles.

a) Teres minor.

(1 mark)

b) Semitendinosus.

(1 mark)

Answer:

a)

1 mark for each of the following, to a maximum of 1 mark:

- Lateral rotation of the humerus.

b)

1 mark for each of the following, to a maximum of 1 mark:

- Flexion at the knee & extension at the hip.

11.

Explain the effects of ischemia.

(2 marks)

Answer:

1 mark for each of the following, to a maximum of 2 marks:

- A lack of nutrients to cells leading to reduced cellular metabolism.
- A lack of oxygen which can lead to cell death/stroke.

12.

Describe **two** characteristics of arteriosclerosis.

(2 marks)

Answer:

1 mark each for any of the following, to a maximum of 2 marks:

- Thickening/hardening of the arteries.
- Narrowing of the arteries.
- Loss of elasticity in the artery walls.

13.

Explain the function of the lymphatic system when dealing with foreign bodies.

(3 marks)

Answer:

1 mark for each of the following, to a maximum of 3 marks:

The lymphatic system produce lymphocytes to deal with waste and toxins (1), the system develops antibodies to defend the body against infection (1), the system filters and destroys pathogens (1).

14.

State the location of the **each** of the following nodes.

- a) Buccal. (1 mark)
- b) Supratrochlear. (1 mark)
- c) Parotid. (1 mark)

Answer:

a)

1 mark for each of the following, to a maximum of 1 mark:

- Corner of the mouth.

b)

1 mark for each of the following, to a maximum of 1 mark:

- Crease/anterior of elbow.

c)

1 mark for each of the following, to a maximum of 1 mark:

- Anterior aspect of the ear.

15.

Explain how **each** of the following pathologies affect the body.

- a) Sciatica. (2 marks)
- b) Dementia. (2 marks)
- c) Bell's palsy. (2 marks)

Answer:

a)

1 mark each for any of the following, to a maximum of 2 marks:

- Compression on the sciatic nerve (1) causes a sharp stabbing pain in the buttock/posterior thigh / pain that radiates down the leg / the lower limb can feel numb (1).

b)

1 mark each for any of the following, to a maximum of 2 marks:

- Degeneration of the neural tissue of the brain (1) causing memory loss / a change in personality/mood (1).

c)

1 mark each for any of the following, to a maximum of 2 marks:

- Damage to the facial nerve (1) causing muscle paralysis on usually one side of the face (1).

16.

Explain how **each** of the following pathologies affect the body.

a) Laryngitis.

(2 marks)

b) Pharyngitis.

(2 marks)

c) Sinusitis.

(2 marks)

Answer:

a)

1 mark for any of the following, to a maximum of 2 marks

- Laryngitis is inflammation of the larynx/voice-box (1), which can lead to hoarseness of voice to loss of voice / and may have pain when swallowing (1).

b)

1 mark for any of the following, to a maximum of 2 marks

- Pharyngitis is inflammation of the pharynx (1), which can lead to a sore throat / throat may swell causing breathing difficulties (1).

c)

1 mark for any of the following, to a maximum of 2 marks

- Sinusitis infection of the mucous membranes of the sinus cavities (1), which can lead to headaches and pain around the eyes and cheek area / congestion of the nasal passages (1).

17.

a. State **two** accessory digestive organs.

(2 marks)

b. Explain the function of the organs stated in part a).

(4 marks)

Answer

a.

1 mark each for any of the following, to a maximum of 2 mark:

- Pancreas.
- Gall bladder.
- Liver.

b.

1 mark each for any of the following, to a maximum of 2 marks per digestive organ:

Pancreas.

- Secretes enzyme/pancreatic juice which breaks down carbohydrates, proteins and lipids in food whilst in the small intestine (1) neutralises the acidity in the chime (1).

Gall bladder.

- Stores and concentrates bile until it is needed (1) when needed it releases the bile into the duodenum (1) which emulsify fats (1).

Liver.

- It manufactures bile (1) regulates blood sugar levels by storing the excess glucose as glycogen (1) when stores of glycogen are full it will then convert the surplus glucose to fat, (1), stores fat and water soluble vitamins (1), detoxifies harmful toxic waste and excretes them in bile or through the kidneys (1), generates heat (1), breaks down worn out erythrocytes (1).

18.

a) State the location of the adrenal glands.

(1 mark)

b) Explain the role of the adrenal glands during periods of stress.

(4 marks)

Answer:

a)

1 mark for each of the following, to a maximum of 1 mark:

- Superior to renal organs / lie on top of the kidneys.

b)

1 mark each for any of the following, to a maximum of 4 marks

- The adrenal cortex releases adrenaline which causes the arteries to dilate (1) increasing the blood circulation and blood supply (1), causing the bronchial tubes to dilate increasing oxygen intake and rate of breathing (1), increasing the metabolic rate (1), and causing vasoconstriction of the blood vessels (1).

19.

State one hormone secreted by the pancreas.

(1 mark)

Answer:

1 mark each for any of the following, to a maximum of 1 mark

- Insulin.
- Glucagon.

20.

State the location of the loop of Henle within the body.

(1 mark)

Answer:

1 mark each for any of the following, to a maximum of 1 mark:

- Kidneys.

21.

a) State the technical term for absence of menstruation.

(1 mark)

b) Explain the potential causes for an absence of menstruation.

(2 marks)

Answer:

a)

1 mark for each of the following, to a maximum of 1 mark:

- Amenorrhea.

b)

1 mark each for any of the following, to a maximum of 2 marks:

- A reduction in the production of oestrogen/progesterone affecting the cycle.
- Extreme stress can alter the balance of the endocrine system.
- Severe weight loss / anorexia affects the nutrients level required.
- Pituitary disorders causes an imbalance/deficiency of hormones.
- Genetic absence of female organs.