higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

MARKING GUIDELINE

NATIONAL CERTIFICATE (VOCATIONAL)

THE HUMAN BODY AND MIND
NQF LEVEL 3

26 February 2020

This marking guideline consists of 10 pages.

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QUESTION 1

1.1
1.1.1 True
1.1.2 False
1.1.3 False
1.1.4 True
1.1.5 True
1.1.6 False
1.1.7 True
1.1.8 False
1.1.9 False
1.1.10 True

(10 × 1) (10)

1.2

ENDOCRINE SYSTEM	IMMUNE SYSTEM
• Ovaries • Adrenal glands • Thyroid gland • Mammary glands • Testis	• Axillary lymph nodes • Lymph fluid • Tonsils • Thymus • Spleen

(5 × 2) (10)

1.3
- Nose
- Pinna
- Ear canal
- Rib cage
- Trachea
- Vertebral column/between the vertebrae (Any 3 × 1) (3)

1.4
- Orbicularis oculi
- Levator palpebrae superioris (2)

1.5 Yes, a mind map is a useful tool because

- it helps to improve the memory
- it improves the self-esteem
- it presents information in a visual and graphic way
- it summarizes and organize large chunks of information which reduces study time
- it is fun and therefor makes it easy to process and remember information
- using mind maps makes it easy to remember during revision
- self-worth improves
- confidence improves
- it can be used as a way of taking notes

OR

No, a mind map is not a useful tool because

- it is difficult to use if the user does not understand subject content
- it is very time-consuming
- might be very difficult for others to understand if created by someone else
- mind maps can be very disorganized if the concepts are not linked properly
- takes too much effort (Any 5 × 1) (5)

[30]

QUESTION 2

2.1
2.1.1 Erik Erikson
2.1.2 Cervix
2.1.3 Levator anii
2.1.4 Ocular
2.1.5 Pectoralis
2.1.6 Sciatic
2.1.7 Vastus lateralis
2.1.8 Ivan pavlov
2.1.9 Lacrimal glands
2.1.10 Cerebrospinal fluid

(10 × 1) (10)

2.2
2.2.1 Coronary arteries
2.2.2 Celiac arteries
2.2.3 Renal arteries
2.2.4 Superior mesenteric arteries
2.2.5 Hepatic arteries

(5 × 1) (5)

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2.3 2.3.1 The testes are situated in the scrotum (1)

2.3.2
- The mother made the correct decision because:
- the testes need to be at a temperature less than body temperature
- in order to produce sperms
- Heat/high temperature can damage the testes
- If the testes cannot do its function, Peter can be infertile in the future (Any 3 × 1) (3)

2.3.3
- No, the testes are not well-protected
- It is only covered by skin
- It does not have skeletal protection
- and is therefore very vulnerable to injury (Any 3 × 1) (3)

2.4
- Tumi is at risk of contracting measles✓
- Her body does not have antibodies to protect her against measles because of missing her measles vaccination✓
- Her immune system is not strong enough to protect her against measles✓ therefor she can get severely ill✓ and even die✓
- She has a weak immune system✓ due to poor nutrition and ingestion of microorganisms through a dirty bottle✓
- Explain to Tumi's mother the importance of proper nutrition✓ a clean bottle✓ and immunisation✓ to strengthen the immune system
- Tumi's mother should feed her a balanced diet, consisting of milk and food from the five food groups✓ to boost her immune system✓ and take her to the clinic for measles vaccination and a check-up on her general health status✓ (Any 5 × 1) (5)

2.5
- Fungi
- Parasites
- Viruses (3)

[30]

QUESTION 3

3.1
3.1.1 L
3.1.2 J
3.1.3 K
3.1.4 C
3.1.5 A
3.1.6 M
3.1.7 B
3.1.8 G
3.1.9 H
3.1.10 F

(10 × 1) (10)

3.2 3.2.1

- The heart will beat faster, increasing blood circulation. Blood will transport more white blood cells, oxygen and nutrients to body tissues, resulting in a healthier body
- Exercise and relief depression by releasing hormones serotonin and endorphins, stress and anxiety
- Exercise can assist with weight loss and reduce a person's chances of non-communicable diseases (heart problems, hypertension and diabetes)
- Exercise helps build muscles and strong bones; may also prevent osteoporosis
- Exercise can increase energy levels in people suffering from progressive illnesses such as cancers and HIV and AIDS
- Regular exercise improves blood flow to the brain and help brain health and memory
- Exercise can help a person sleep better and feel more energized during the day (Any 1 × 2)

3.2.2 Dumping rubbish in an open field can attract flies and rats which puts people at risk of disease

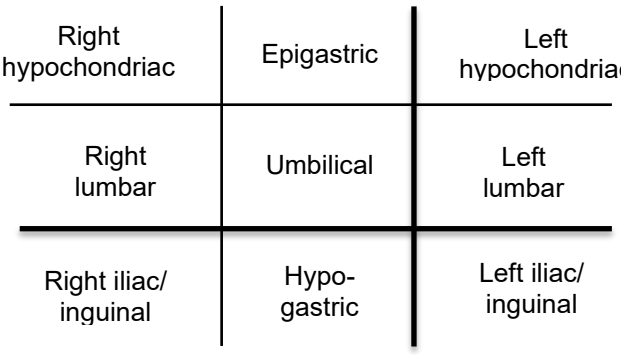
3.2.3 Unsafe sex expose a person to sexually transmitted infections and puts them at risk of HIV and AIDS, as well as the spread of HIV and AIDS

3.2.4 A healthy diet consists of the necessary vitamins and nutrients to boost the immune system and prevent illnesses

3.2.5 The skin is the first barrier that prevents invasion of microorganisms. Taking care of one's skin (washing and moisturising) prevents cracks and the invasion of microorganisms which can weaken the immune system

(5 × 2) (10)

3.3



(Allocate 1 mark for the correct drawing and 1 mark for each correctly labelled abdominal region) (10)

[30]

QUESTION 4

4.1
4.1.1 B
4.1.2 C
4.1.3 B
4.1.4 D
4.1.5 A
4.1.6 D
4.1.7 C
4.1.8 D
4.1.9 B
4.1.10 A

(10 × 1) (10)

4.2
4.2.1 Behaviourist
4.2.2 Behaviourist
4.2.3 Psychodynamic
4.2.4 Behaviourist
4.2.5 Psychodynamic

(5 × 1) (5)

4.3
- Sense of sight✓ protects me by seeing oncoming traffic, a snake, smoke, etc.✓
- Sense of hearing✓ protects me by hearing oncoming traffic, a hissing snake, etc.✓
- Sense of smell✓ protects me by smelling rotten food, smoke, poison, strong chemicals, etc.✓
- Sense of taste✓ protects me by tasting rotten food, poison, etc.✓
- Sense of touch✓ protects me by feeling extreme heat, e.g. hot plate or cold✓

(5 × 2) (10)

4.4 Agree✓
The body needs to get rid of urine because it contains waste products✓
if waste products remain in the body, it weakens the immune system✓ (3)

4.5 If the aorta does not do its function, the body organs/tissues/cells will not receive oxygen and we will die (2)

[30]

QUESTION 5

5.1
5.1.1 Lymphatic
5.1.2 Circulatory/cardiovascular
5.1.3 Nervous
5.1.4 Central nervous
5.1.5 Skeletal
5.1.6 Skeletal
5.1.7 male reproductive
5.1.8 Respiratory
5.1.9 Muscular
5.1.10 Digestive

(10 × 1) (10)

5.2
- Swelling
- Redness (increased blood supply)
- Pain
- Increased temperature (fever)
- Tenderness of the affected area (Any 4 × 1) (4)

5.3
- Breathing with difficulty/wheezing
- Headache
- Swelling
- Nausea or vomiting
- Abdominal cramps
- Weak and rapid heartbeat/pulse
- Low blood pressure
- Skin reactions such as hives, flushed skin or paleness
- Suddenly feeling too warm
- Feeling like a lump in the throat or difficulty swallowing
- Diarrhea
- Runny nose and sneezing
- Swollen tongue and lips
- Tingling hands, feet, mouth and tongue (Any 6 × 1) (6)

5.4 5.4.1 Identity compared to role confusion. (1)

5.4.2 Negative feedback✓
Her mother did not guide her through her physical and emotional changes she experienced✓ so she had to rely on her friends for advice✓ (3)

5.4.3
- Zola might become sexually active
- fall pregnant
- contract HIV or other sexually transmitted infections
- drop out of school and not get an education (Any 3 × 1) (3)

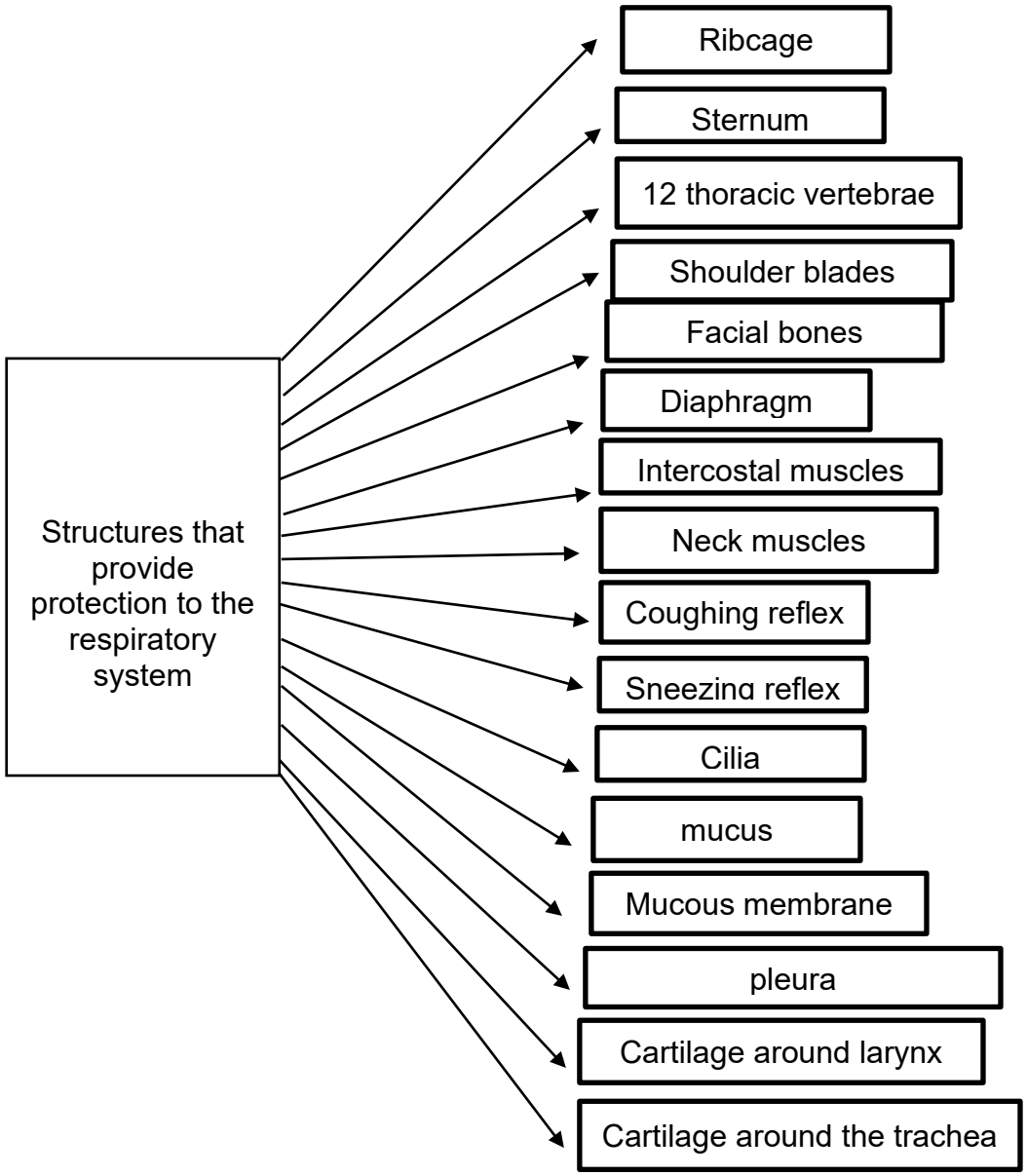
5.4.4
- Zola's mother should have made time to listen to her daughter✓
- She should have found out what Zola's challenges are
- She should have reassured Zola that what she is going through is normal
- She should have informed Zola that menstruating means being fertile and that unprotected sex would result in an unwanted pregnancy (Any 2 × 1) (2)

5.4.5 Formal operational stage (1)
[30]

QUESTION 6

6.1
6.1.1 Goosebumps
6.1.2 Antibodies
6.1.3 behaviour change
6.1.4 Immunodeficiency
6.1.5 Allergens
6.1.6 Pneumonia
6.1.7 Asthma
6.1.8 Formal operational stage
6.1.9 psychodynamic
6.1.10 Introverted
(10 × 1) (10)

6.2



(Any 5 × 2) (10)

6.3
- Is energetic and will find it difficult to sit and listen passively
- Is talkative/ cannot keep quiet for prolonged periods
- Tend to be enthusiastic; listening will dampen enthusiasm
- Are action-orientated; sitting still is the opposite of their personality
- Always look for opportunities of excitement; they will find it boring to just listen to a teacher
- Are assertive in groups; having to listen dampens assertiveness
- Like to draw attention to themselves; having to listen in class means the attention will be on the teacher (Any 6 × 1) (6)

6.4
- Conjunctiva
- Sclera
- Cornea
- Choroid
- Blood vessels
- Iris
- Pupil
- Intrinsic muscles (Any 4 × 1) (4)

[30]

TOTAL: 180

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