

**MULTIPLE CHOICE
QUESTION PAPER**



Paper number: SAMPLE 3 Please ensure that this paper number is referenced on your candidate answer sheet	Time allocation: 45 minutes
Title: <p style="text-align: center;">Level 2 Anatomy and Physiology for Exercise and Fitness Instructors (K/616/7823) - Sample Assessment Materials</p>	
Student: XXXXXX Sample 3	
Special Instructions: This asample sssessment contains 30 multiple-choice questions. You need to correctly answer 21 out of 30 questions (70%) to pass. Each question is worth one mark. You should select one response (a, b, c or d) for each question and record this on your answer sheet. Please do not write on the question paper. Try to answer all questions and check your responses, if you have time to do so.	

- Q1** Which of the following describes neutral spine alignment?
- a) When the spine is in neutral alignment there is a mild S-shaped curve
 - b) When the spine is in neutral there is natural kyphosis of the lumbar and cervical spine
 - c) When the spine is in neutral alignment there is an emphasised S-shaped curve
 - d) When the spine is in neutral there is natural lordosis of the thoracic and sacral spine
- Q2** A deep muscle located anterior to the spine is the
- a) external obliques
 - b) transverse abdominis
 - c) erector spinae
 - d) rectus abdominis
- Q3** Which of the following explains the importance of minerals in the process of bone growth?
- a) Sodium is the most important mineral during the process of bone growth
 - b) Calcium is the most important mineral during the process of bone growth
 - c) Magnesium is the most important mineral during the process of bone growth
 - d) Iron is the most important mineral during the process of bone growth
- Q4** Which of the following describes a function of the skeleton?
- a) Calcium is stored in the bone marrow
 - b) The skeletal structures produce vital water-soluble vitamins
 - c) Short bones act as the levers for movement
 - d) The skeletal structures offer protection to the vital organs
- Q5** Which of the following describes the function of the aorta?
- a) It carries oxygenated blood to the heart
 - b) It carries oxygenated blood to the body
 - c) It carries deoxygenated blood to the lungs
 - d) It carries deoxygenated blood to the heart

- Q6** Which of the following describes the trachea?
- a) It is the hollow tube that connects the larynx to the bronchioles
 - b) It is a hollow tube made of cancellous bone
 - c) It is a hollow tube made of compact bone
 - d) It is the hollow tube that connects the larynx to the bronchi**
- Q7** Which of the following describes the action of the rectus abdominis when it contracts concentrically?
- a) The muscle shortens to produce flexion of the spine**
 - b) The muscle lengthens to produce extension of the spine
 - c) The muscle lengthens to produce flexion of the spine
 - d) The muscle shortens to produce extension of the spine
- Q8** Which of the following describes the 'all-or-none' law?
- a) An action potential will maximally innervate a percentage of muscle fibres within every motor unit
 - b) An action potential will maximally innervate all muscle fibres within a single motor unit**
 - c) An action potential will maximally innervate a percentage of muscle fibres within a single motor unit
 - d) An action potential will maximally innervate all muscle fibres within every motor unit
- Q9** Which of the following describes the curves of the spine?
- a) The lumbar spine has a natural inward curve**
 - b) The thoracic spine has a natural inward curve
 - c) The lumbar spine has a natural outward curve
 - d) The cervical spine has a natural outward curve
- Q10** Which of the following describes the basic structure of skeletal muscle?
- a) Skeletal muscles attach to bones via ligaments
 - b) The epimysium is a connective tissue that surrounds the sarcomere
 - c) Myosin and actin are the myofilaments within the sarcomere**
 - d) Skeletal muscles consist of 50% water and 50% protein

Q11 Which of the following describes gaseous exchange?

- a) Oxygen in the pulmonary capillaries diffuses into the alveoli to be expelled
- b) Oxygen in the alveoli diffuses into the pulmonary capillaries to be circulated around the body
- c) Carbon dioxide diffuses from the pulmonary capillaries to be circulated around the body
- d) Carbon dioxide diffuses from the alveoli to the pulmonary capillaries to be expelled

Q12 Which of the following statements about the structure of long bones is true?

- a) They store calcium in the medullary cavity at their centre
- b) The two ends of the long bone are the diaphysis
- c) They are covered by a connective tissue called the periosteum
- d) The main bone shaft of a long bone is the epiphysis

Q13 Which of the following statements about joint classification is true?

- a) The thumb is an example of a cartilaginous joint
- b) The knee is an example of a cartilaginous joint
- c) The ankle is an example of a freely moveable joint
- d) The lumbar spine is an example of a synovial joint

Q14 Which of the following is an example of a long bone?

- a) Patella
- b) Clavicle
- c) Phalanges
- d) Carpals

Q15 Which of the following is a **superficial** muscle located posterior to the femur?

- a) Hamstrings
- b) Soleus
- c) Adductors
- d) Quadriceps

- Q16** Which of the following describes the range of motion available at a synovial joint?
- a) Flexion and extension are movements available at hinge joints
 - b) Abduction and adduction are movements available at hinge joints
 - c) Flexion and extension are movements available at pivot joints
 - d) Abduction and adduction are movements available at pivot joints
- Q17** Which of the following statements about the structure of the heart is true?
- a) The ventricles have less muscular walls
 - b) The atria have more muscular walls
 - c) The ventricles are the largest chambers
 - d) The atria are largest chambers
- Q18** Which of the following describes how exercise can enhance neuromuscular connections?
- a) It can improve the synchronous recruitment of motor units
 - b) It can increase the number of small motor units
 - c) It can reduce the speed of nerve impulses
 - d) It can increase the number of large motor units
- Q19** Which of the following describes a principle of muscle contraction?
- a) Muscles work in isolation to create movement
 - b) During muscle work, both the agonist and antagonist contract
 - c) During muscle contraction, it is only the origin of the muscle that moves
 - d) Muscles can only pull on bones to create movement
- Q20** Which of the following is a function of skeletal muscle?
- a) Assists digestion
 - b) Generates heat
 - c) Prevents stability
 - d) Restricts movement

Q21 How does fluid intake aid the digestive process?

- a) It optimises the function of the kidneys
- b) It assists the contraction of muscles
- c) It helps to reduce constipation**
- d) It helps to regulate blood pressure

Q22 Which of the following gases diffuse into the alveoli to be expelled by the lungs?

- a) Carbon monoxide
- b) Carbon dioxide**
- c) Oxygen
- d) Hydrogen

Q23 Which of the following should be encouraged with post-natal clients when first returning to exercise?

- a) Strengthening pelvic floor muscles**
- b) High-impact training
- c) Full sit-ups
- d) Heavy resistance training

Q24 Which of the following correctly describes the structure of synovial joints?

- a) Ligaments attach bone to bone**
- b) Muscles move joints via ligament attachment
- c) The articular cartilage provides lubrication
- d) The synovial membrane prevents excessive movement

Q25 The creatine phosphate energy system is used for

- a) instantaneous bursts of activity lasting for just a few seconds**
- b) very quick bursts of high-intensity activity, lasting on average less than a minute
- c) sustained activity lasting more than 90 s
- d) longer duration activities and exercise involving maximum efforts

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- Q26** Which of the following are part of the pulmonary circulatory system?
- a) The right ventricle and the aorta
 - b) The right ventricle and the pulmonary arteries**
 - c) The left ventricle and the aorta
 - d) The left ventricle and the pulmonary arteries
- Q27** Which of the following is a muscle associated with the pelvic floor?
- a) Iliopsoas
 - b) Gluteals
 - c) Erector spinae
 - d) Coccygeus**
- Q28** Which of the following describes the movement potential and joint actions of the shoulder girdle?
- a) Internal and external rotation are movements of the shoulder girdle
 - b) Pronation and supination are movements of the shoulder girdle
 - c) Flexion and extension are movements of the shoulder girdle
 - d) Retraction and protraction are movements of the shoulder girdle**
- Q29** Which of the following statements about the nervous system is true?
- a) Voluntary movement is controlled by the somatic nervous system**
 - b) The 'fight-or-flight' response is controlled by the parasympathetic system
 - c) Involuntary movement is controlled by the somatic nervous system
 - d) Rest and relaxation are controlled by the sympathetic nervous system
- Q30** Which of the following describes how blood moves through the four chambers of the heart?
- a) Deoxygenated blood from the left atria moves to the right ventricle
 - b) Oxygenated blood from the left atria moves to the left ventricle**
 - c) Oxygenated blood from the left atria moves to the right ventricle
 - d) Deoxygenated blood from the left atria moves to the left ventricle
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Sample Assessment

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Important! The form should be completed IN CAPITAL LETTERS using a BLACK ballpoint pen. Characters and marks used should be similar to:

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z 1 2 3 4 5 6 7 8 9 0

To select a checkbox:
 or

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This candidate answer sheet must be used with a paper in the following structure:

30 Questions

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Site Code: SAM001/001 Assessment Date: 01/03/2018

Paper: Sample 3

Student: XXXXXX Sample 3

Q1 a b c d

Q2 a b c d

Q3 a b c d

Q4 a b c d

Q5 a b c d

Q6 a b c d

Q7 a b c d

Q8 a b c d

Q9 a b c d

Q10 a b c d

Q11 a b c d

Q12 a b c d

Q13 a b c d

Q14 a b c d

Q15 a b c d

Q16 a b c d

Q17 a b c d

Q18 a b c d

Q19 a b c d

Q20 a b c d

Q21 a b c d

Q22 a b c d

Q23 a b c d

Q24 a b c d

Q25 a b c d

Q26 a b c d

Q27 a b c d

Q28 a b c d

Q29 a b c d

Q30 a b c d

Invigilator Name (must be clearly printed)

Invigilator Signature (Please keep inside box)

Candidate Signature (Please keep inside box)

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