

**MULTIPLE CHOICE
QUESTION PAPER**



Paper number: SAMPLE 1 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 1	
Special Instructions: <p>This asample sssessment contains 30 multiple-choice questions. You need to correctly answer 21 out of 30 questions (70%) to pass.</p> <p>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.</p> <p>Try to answer all questions and check your responses, if you have time to do so.</p>	

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- Q1** Which of the following describes how exercise can enhance neuromuscular connections?
- a) It can increase the speed of nerve impulses
 - b) It can reduce the speed of nerve impulses
 - c) It can reduce the number of smaller motor units
 - d) It can increase the number of smaller motor units
- Q2** Which of the following statements about the structure of long bones is true?
- a) The two ends of the long bone are the diaphysis
 - b) They store calcium in the medullary cavity at their centre
 - c) They are covered by a connective tissue called the periosteum
 - d) The main bone shaft of a long bone is the epiphysis
- Q3** How does fluid intake aid the digestive process?
- a) It reduces chemical processes
 - b) It helps to dissolve insoluble fibre
 - c) It assists with the removal of waste products
 - d) It helps to dissolve saturated fat
- Q4** Which of the following correctly describes the structure of synovial joints?
- a) The articular cartilage provides lubrication
 - b) Muscles move joints via ligament attachment
 - c) Ligaments attach bone to bone
 - d) The synovial membrane prevents excessive movement
- Q5** Which of the following describes a function of the pelvic floor?
- a) The pelvic floor muscles protect the reproductive organs
 - b) The pelvic floor muscles control continence and supports the foetus during pregnancy
 - c) The pelvic floor muscles reduce the likelihood of constipation during pregnancy
 - d) The pelvic floor muscles provide stability for the lumbar spine
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- Q6** Which of the following explains the importance of minerals in the process of bone growth?
- a) Calcium is the most important mineral during the process of bone growth
 - b) Magnesium is the most important mineral during the process of bone growth
 - c) Iron is the most important mineral during the process of bone growth
 - d) Sodium is the most important mineral during the process of bone growth
- Q7** Which of the following is a function of skeletal muscle?
- a) Assists digestion
 - b) Generates heat
 - c) Restricts movement
 - d) Prevents stability
- Q8** Which of the following are part of the systemic circulatory system?
- a) The left ventricle and the pulmonary arteries
 - b) The left ventricle and the aorta
 - c) The right ventricle and the aorta
 - d) The right ventricle and the pulmonary arteries
- Q9** Which of the following describes the movement potential and joint actions of the shoulder girdle?
- a) Retraction and protraction are movements of the shoulder girdle
 - b) Pronation and supination are movements of the shoulder girdle
 - c) Internal and external rotation are movements of the shoulder girdle
 - d) Flexion and extension are movements of the shoulder girdle
- Q10** Which of the following correctly describes the process of diffusion in the lungs?
- a) Diffusion is the movement of molecules from an area of greater concentration to an area of lesser concentration
 - b) Diffusion is the movement of molecules from an area of lesser concentration to an area of higher concentration
 - c) Diffusion involves the movement of oxygen into the capillaries to be expelled by the lungs
 - d) Diffusion involves the movement of carbon dioxide into the capillaries to be used by the body
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- Q11** Which of the following describes a function of the skeleton?
- a) The skeletal structures produce vital water-soluble vitamins
 - b) Calcium is stored in the bone marrow
 - c) The skeletal structures offer protection to the vital organs
 - d) Short bones act as the levers for movement
- Q12** Which of the following is an example of a long bone?
- a) Clavicle
 - b) Patella
 - c) Carpals
 - d) Phalanges
- Q13** Which of the following sections of the spine has the least range of motion?
- a) Lumbar
 - b) Sacral
 - c) Cervical
 - d) Thoracic
- Q14** Which of the following describes a principle of muscle contraction?
- a) Muscles work in pairs and the contracting muscle is the antagonist
 - b) Fixator muscles assist the contraction of the antagonist
 - c) Muscles work in pairs and the contracting muscle is the agonist
 - d) Fixator muscles assist the contraction of the prime mover
- Q15** Which of the following would be the correct advice to give to an ante-natal client?
- a) Modify exercise programs to avoid overheating
 - b) Stretching ballistically
 - c) Exercise lying in supine after 16 weeks
 - d) Perform exercises heavily loading the abdominals

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- Q16** Which of the following describes how blood moves through the four chambers of the heart?
- a) Oxygenated blood from the left atria moves to the right ventricle
 - b) Oxygenated blood from the left atria moves to the left ventricle
 - c) Deoxygenated blood from the left atria moves to the right ventricle
 - d) Deoxygenated blood from the left atria moves to the left ventricle
- Q17** Which of the following describes the trachea?
- a) It is a hollow tube made of compact bone
 - b) It is the hollow tube that connects the larynx to the bronchi
 - c) It is the hollow tube that connects the larynx to the bronchioles
 - d) It is a hollow tube made of cancellous bone
- Q18** Which of the following statements about the nervous system is true?
- a) Blood pressure is controlled by the autonomic system
 - b) Skeletal muscle contraction is controlled by the sympathetic nervous system
 - c) Skeletal muscle contraction is controlled by the parasympathetic nervous system
 - d) Blood pressure is controlled by the somatic system
- Q19** 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
- Q20** Which of the following describes gaseous exchange?
- a) Carbon dioxide moves from the pulmonary capillaries into the alveoli to be expelled
 - b) Carbon dioxide moves from the pulmonary capillaries into the alveoli to be circulated around the body
 - c) Carbon dioxide moves from the alveoli into the pulmonary capillaries to be circulated around the body
 - d) Carbon dioxide moves from the alveoli into the pulmonary capillaries to be expelled
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Q21 Which of the following describes the 'all-or-none' law?

- a) An action potential will maximally innervate all muscle fibres within a single motor unit
- b) An action potential will maximally innervate a percentage of muscle fibres within a single motor unit
- c) An action potential will maximally innervate a percentage of muscle fibres within every motor unit
- d) An action potential will maximally innervate all muscle fibres within every motor unit

Q22 Which of the following describes the postural deviation hyperkyphosis?

- a) An excessive inward curve of the lumbar spine
- b) An excessive outward curve of the thoracic spine
- c) An excessive outward curve of the lumbar spine
- d) An excessive inward curve of the thoracic spine

Q23 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 pivot joints
- c) Flexion and extension are movements available at pivot joints
- d) Abduction and adduction are movements available at hinge joints

Q24 The aerobic 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

Q25 Which of the following describes the structure of veins?

- a) They have thicker, more-muscular walls than arteries
- b) All veins carry deoxygenated blood
- c) All veins carry oxygenated blood
- d) They have thinner, less-muscular walls than arteries

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- Q26** Which of the following is a **superficial** muscle located posterior to the femur?
- a) Quadriceps
 - b) Adductors
 - c) Hamstrings
 - d) Soleus
- Q27** A deep muscle located anterior to the spine is the
- a) erector spinae
 - b) transverse abdominis
 - c) rectus abdominis
 - d) external obliques
- Q28** Which of the following statements about the structure of the heart is true?
- a) The ventricles are the smaller, superior chambers
 - b) The ventricles are the larger, superior chambers
 - c) The ventricles are the larger, inferior chambers
 - d) The ventricles are the smaller, inferior chambers
- Q29** Which of the following statements about joint classification is true?
- a) The lumbar spine is an example of a synovial joint
 - b) The ankle is an example of a freely moveable joint
 - c) The knee is an example of a cartilaginous joint
 - d) The thumb is an example of a cartilaginous joint
- Q30** Which of the following describes an isometric contraction?
- a) The muscle relaxes without changing length
 - b) The muscle relaxes and lengthens
 - c) The muscle contracts and shortens
 - d) The muscle contracts without changing length
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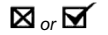
Sample Assessment

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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:



YMCA Awards Theory Paper

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 1

Student: XXXXXX Sample 1

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)



Sample Assessment

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