

**MULTIPLE CHOICE
QUESTION PAPER**

Paper number: SAMPLE 4 Please ensure that this paper number is referenced on your candidate answer sheet	Time allocation: 45 minutes
Title: Level 2 Anatomy and Physiology for Exercise and Fitness Instructors (K/616/7823) - Sample Assessment Materials	
Student: XXXXXX Sample 4	
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.	

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- Q1** Which of the following statements about synovial joints is true?
- a) The hip is an example of a saddle joint
 - b) The elbow is an example of gliding joint
 - c) The knee is an example of a hinge joint
 - d) The shoulder is an example of a pivot joint
- Q2** Which of the following statements about the nervous system is true?
- a) Blood pressure is controlled by the somatic system
 - b) Blood pressure is controlled by the autonomic system
 - c) Skeletal muscle contraction is controlled by the parasympathetic nervous system
 - d) Skeletal muscle contraction is controlled by the sympathetic nervous system
- Q3** Which of the following describes the 'all-or-none' law?
- a) An action potential will maximally innervate a percentage of muscle fibres within a single motor unit
 - b) An action potential will maximally innervate all muscle fibres within every motor unit
 - c) An action potential will maximally innervate all muscle fibres within a single motor unit
 - d) An action potential will maximally innervate a percentage of muscle fibres within every motor unit
- Q4** Which of the following describes a function of skeletal muscle?
- a) They relax and lengthen to perform a role as a fixator
 - b) They relax and lengthen to perform a role as a synergist
 - c) They contract and shorten to perform a role as a prime mover
 - d) They contract and shorten to perform a role as an antagonist
- Q5** Which of the following correctly describes the structure of synovial joints?
- a) Tendons attach bone to bone
 - b) The synovial membrane prevents friction during movement
 - c) The articular cartilage provides stability to the joint
 - d) Ligaments provide stability to the joint
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- Q6** Which of the following correctly describes the process of diffusion in the lungs?
- a) Diffusion is the movement of molecules from an area of lesser concentration to an area of higher concentration
 - b) Diffusion involves the movement of oxygen into the capillaries to be expelled by the lungs
 - c) Diffusion involves the movement of carbon dioxide into the capillaries to be used by the body
 - d) Diffusion is the movement of molecules from an area of greater concentration to an area of lesser concentration
- Q7** Which of the following describes a function of the skeleton?
- a) The flat bones act as a levers for movement
 - b) The irregular bones act as strong attachment points for muscles
 - c) The long bones act as a levers for movement
 - d) The short bones act as strong attachment points for muscles
- Q8** 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) Deoxygenated blood from the left atria moves to the right ventricle
 - c) Oxygenated blood from the left atria moves to the left ventricle
 - d) Deoxygenated blood from the left atria moves to the left ventricle
- Q9** Which of the following describes the action of the gastrocnemius when it contracts eccentrically?
- a) The muscle shortens and the ankle plantar flexes
 - b) The muscle lengthens and the ankle plantar flexes
 - c) The muscle lengthens and the ankle dorsi flexes
 - d) The muscle shortens and the ankle dorsi flexes
- Q10** Which of the following sections of the spine has the least range of motion?
- a) Lumbar
 - b) Thoracic
 - c) Sacral
 - d) Cervical
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Q11 Which of the following is an example of a flat bone?

- a) Ischium
- b) Patella
- c) Scapula
- d) Clavicle

Q12 Which of the following describes gaseous exchange?

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

Q13 Which of the following describes how exercise can enhance neuromuscular connections?

- a) It can increase the number of smaller motor units
- b) It can reduce the number of smaller motor units
- c) It can reduce the speed of nerve impulses
- d) It can increase the speed of nerve impulses

Q14 Which of the following is a muscle associated with the pelvic floor?

- a) Iliococcygeus
- b) Iliopsoas
- c) Piriformis
- d) Pectineus

Q15 Which of the following should be encouraged with post-natal clients when first returning to exercise?

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

Q16 Which of the following muscles is located anterior of the femur?

- a) Hamstrings
- b) Gluteals
- c) Tibialis anterior
- d) Quadriceps

Q17 Which of the following describes the trachea?

- a) It is the hollow tube that connects the larynx to the bronchioles
- b) It is the hollow tube that connects the larynx to the bronchi
- c) It is a hollow tube made of cancellous bone
- d) It is a hollow tube made of compact bone

Q18 Which of the following explains bone growth?

- a) The bones cells that contribute to bone building are osteoblasts
- b) The process of bone growth is dependent on dietary intake of vitamin C
- c) The process of bone growth is fully dependent on dietary intake of vitamin A
- d) The bones cells that contribute to bone building are osteoclasts

Q19 Which of the following describes the structure of veins?

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

Q20 Which of the following describes the basic structure of skeletal muscle?

- a) Skeletal muscles consist of 50% water and 50% protein
- b) Myosin and actin are the myofilaments within the sarcomere
- c) The epimysium is a connective tissue that surrounds the sarcomere
- d) Skeletal muscles attach to bones via ligaments

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- Q21** Which of the following statements about joint classification is true?
- a) Slightly movable joints are fibrous
 - b) Freely moveable joints are cartilaginous
 - c) Immovable joints are fused
 - d) Synovial joints are cartilaginous
- Q22** How does fluid intake aid the digestive process?
- a) It assists the contraction of muscles
 - b) It helps to regulate blood pressure
 - c) It helps to reduce constipation
 - d) It optimises the function of the kidneys
- Q23** 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, inferior chambers
 - c) The ventricles are the smaller, inferior chambers
 - d) The ventricles are the larger, superior chambers
- Q24** Which of the following muscles is located laterally to the spine?
- a) Obliques
 - b) Pelvic floor
 - c) Rectus abdominus
 - d) Erector spinae
- Q25** Which of the following describes a principle of muscle contraction?
- a) Fixator muscles assist the contraction of the prime mover
 - b) Muscles work in pairs and the contracting muscle is the agonist
 - c) Fixator muscles assist the contraction of the antagonist
 - d) Muscles work in pairs and the contracting muscle is the antagonist

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- Q26** 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
- Q27** Which of the following statements about the structure of long bones is true?
- a) The diaphysis is formed of cancellous bone
 - b) The epiphysis is formed of compact bone
 - c) The growth plates adapt throughout the lifespan
 - d) The ends of a long bone are covered by hyaline cartilage
- Q28** Which of the following are part of the systemic circulatory system?
- a) The left ventricle and the aorta
 - b) The right ventricle and the pulmonary arteries
 - c) The right ventricle and the aorta
 - d) The left ventricle and the pulmonary arteries
- Q29** Which of the following describes the postural deviation hyperkyphosis?
- a) An excessive inward curve of the thoracic spine
 - b) An excessive outward curve of the lumbar spine
 - c) An excessive inward curve of the lumbar spine
 - d) An excessive outward curve of the thoracic spine
- Q30** Which of the following describes pronation and supination?
- a) Pronation and supination are movements of the wrist joint
 - b) Pronation and supination are movements of the ankle joint
 - c) Pronation and supination are movements of the radioulnar joint
 - d) Pronation and supination are movements of the hip joint
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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



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 4

Student: XXXXXX Sample 4

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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