

**MULTIPLE CHOICE
QUESTION PAPER**

Paper number MPAPAH Please insert this reference number in the appropriate boxes on your candidate answer sheet	Time allocation 50 minutes
Title <div style="text-align: center;"> <h2>Level 2 Mock Paper</h2> <h1>Anatomy and Physiology</h1> <h2>For Exercise and Health</h2> </div> <p style="text-align: center;">Unit Accreditation Number H/600/9013</p>	
Special Instructions <p>This theory paper comprises questions that are indicative to the Level 2 Anatomy and Physiology for Exercise and Health unit. It contains questions that are phrased as standard multiple choice, pictorial, fill the blanks and complete the sentence style questions. Answers should be recorded as either a, b, c or d.</p> <ul style="list-style-type: none"> • Circulatory system • Respiratory system • Structure and function of the skeleton • Muscular system • Musculoskeletal System • Energy System • Nervous System <p>This theory paper has 40 marks. A minimum total of 28 marks overall (70%) is required in order to pass.</p> <p>Important: Please do not write on this paper.</p>	

Q1

**Which of the following blood vessels carries blood towards the heart?
(1 mark)**

- a. Veins
- b. Arteries
- c. Capillaries
- d. The aorta

Q2

What is the purpose of the heart valves? (1 mark)

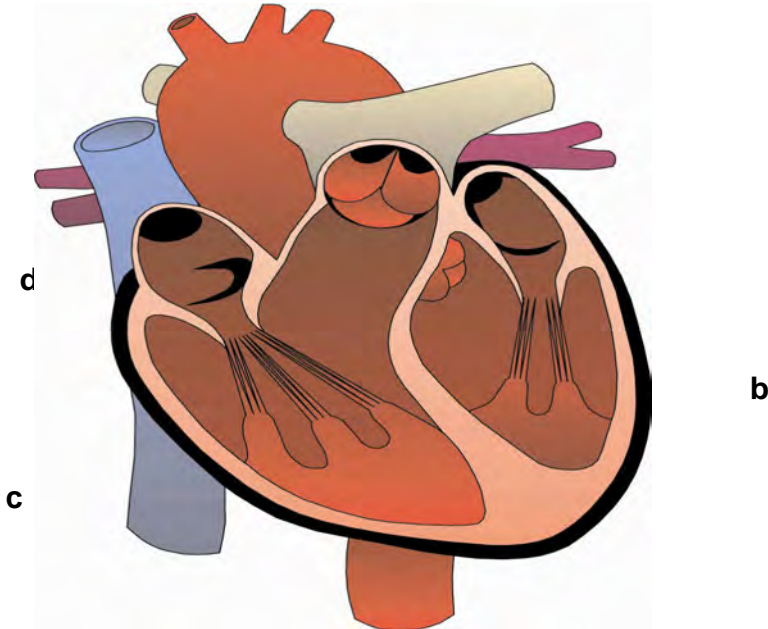
- a. To allow gaseous exchange
- b. To prevent gaseous exchange
- c. To allow backflow of blood
- d. To prevent backflow of blood

Q3

**Which of the following best describes the flow of blood in systemic circulation?
(1 mark)**

- a. Left ventricle, aorta, arteries, arterioles, capillaries, venules, veins, vena cava, right atrium
- b. Right ventricle, pulmonary artery, arterioles, capillaries, venules, veins, pulmonary veins, left atrium
- c. Right ventricle, aorta, arteries, arterioles, capillaries, venules, veins, vena cava, left atrium
- d. Left ventricle, pulmonary artery, arterioles, capillaries, venules, veins, pulmonary veins, right atrium

Q4

Which arrow is pointing to the left ventricle? (1 mark)

Q5

Why does the left ventricle have thicker walls than the right ventricle? (1 mark)

- a. So it can pump blood more forcefully
- b. So it can pump blood less forcefully
- c. To allow gaseous exchange
- d. To prevent gaseous exchange

Q6

Which of the following carries oxygenated blood to the heart from the lungs? (1 mark)

- a. The aorta
- b. The pulmonary vein
- c. The venae cavae
- d. The pulmonary artery

Q7

Which of the following describes a long bone? (1 mark)

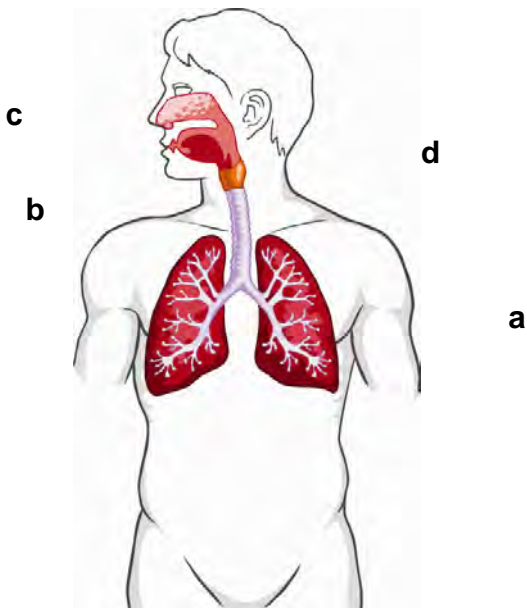
- a. It is curved to help absorb stress
- b. It provides protection and sites for muscle attachment
- c. It is almost equal in length and width
- d. It has a very complex shape

Q8

Which of the following muscles lifts the ribs to expand the chest cavity? (1 mark)

- a. The diaphragm
- b. The internal intercostals
- c. The external intercostals
- d. The pectoralis major

Q9

Which arrow is pointing to the larynx? (1 mark)

Q10

Which of the following gases diffuses into the alveoli from the capillaries to be exhaled? (1 mark)

- a. Nitrogen
- b. Carbon dioxide
- c. Oxygen
- d. Carbon monoxide

Q11

Where would you find the tarsals? (1 mark)

- a. The upper arm
- b. The wrist
- c. The upper leg
- d. The foot

Q12

Which of the following is a function of the skeleton? (1mark)

- a. It supplies oxygen to working muscles
- b. It makes ATP for energy
- c. It stores ATP for energy
- d. It protects vital organs

Q13

To what area of the skeleton is the arrow pointing to? (1 mark)

- a. Ilium
- b. Ischium
- c. Sacrum
- d. Coccyx



Q14

Which of the following forms part of the axial skeleton? (1 mark)

- a. The ulna
- b. The tibia
- c. The ribs
- d. The scapula

Q15

Which of the following description is describing an irregular bone? (1 mark)

- a. Curved to help absorb stress from the body
- b. Thin, give protection to internal organs, provide sites for muscle attachment
- c. Almost equal in width and length, cube shape
- d. Have complex shapes

Q16

What type of bone is the femur? (1 mark)

- a. Long
- b. Flat
- c. Short
- d. Irregular

Q17

What percentage of oxygen is found in exhaled air? (1 mark)

- a. 16
- b. 14
- c. 18
- d. 20

Q18

In the process of ossification what does bone develop from? (1 mark)

- a. Bone marrow
- b. Ligaments
- c. Cartilage
- d. Synovial fluid

Q19

What effect does regular weight-bearing exercise have on joints? (1 mark)

- a. Increased ligament strength
- b. Increased mitochondria density
- c. Increased joint friction
- d. Increased joint volume

Q20

Which bones meet to form a pivot joint? (1 mark)

- a. The femur and tibia
- b. The pelvis and hip
- c. The radius and ulna
- d. The clavicle and humerus

Q21

To what part of the synovial joint is the arrow pointing? (1 mark)

- a. Diaphysis
- b. Bone marrow
- c. Ligaments
- d. Red blood cells



Q22

Which joint action is taking place when the palm turns upwards?

- a. Pronation
- b. Supination
- c. Adduction
- d. Abduction

Q23

Which arrow indicates the area of the body where all of the following joint actions occur? (1mark)

- a. Lateral Flexion
- b. Rotation
- c. Flexion
- d. Extension



Q24

Which of the following muscles is located in the upper arm? (1 mark)

- a. Biceps
- b. Hamstrings
- c. Trapezius
- d. Soleus

Q25

Where would you find cardiac muscle? (1 mark)

- a. The veins
- b. The arteries
- c. The heart
- d. The lungs

Q26

What is the function of actin and myosin filaments? (1 mark)

- a. Muscle fibre breakdown
- b. Energy production
- c. Muscle contraction
- d. Regeneration of ATP

Q27

Which of the following is predominantly recruited during a 10km walk? (1 mark)

- a. Slow twitch muscle fibres
- b. The creatine phosphate system
- c. Fast twitch muscle fibres
- d. The lactic acid system

Q28

Which one of these is a type of voluntary muscle? (1 mark)

- a. Gastrointestinal
- b. Biceps
- c. Heart muscle
- d. Capillaries

Q29

Which of the following is a component of muscle structure? (1 mark)

- a. Sarcomere
- b. Synovial membrane
- c. The epiphysis
- d. The periosteum

Q30

Which of the following muscles is contracting eccentrically during the lowering phase of a lateral raise? (1 mark)

- a. Latissimus dorsi
- b. Erector spinae
- c. Triceps
- d. Medial deltoids

Q31

What term describes a muscle that assists the prime mover? (1 mark)

- a. Agonist
- b. Antagonist
- c. Synergist
- d. Fixator

Q32

Which of the following is the antagonist during a calf raise? (1 mark)

- a. Gastrocnemius
- b. Tibialis anterior
- c. The quadriceps
- d. The hamstring

Q33

Which of the following describes a concentric contraction? (1 mark)

- a. A muscle develops tension and shortens
- b. A muscle develops tension and lengthens
- c. A muscle develops tension but muscle length remains the same
- d. A muscle develops tension to fix a joint in one position

Q34

What duration of activity can muscle stores of adenosine triphosphate (ATP) support? (1 mark)

- a. Up to 4 seconds
- b. Up to 6 seconds
- c. Up to 20 seconds
- d. Up to 120 seconds

Q35

Which of the following nutrients can be stored in the muscles and liver? (1 mark)

- a. Carbohydrate
- b. Fat
- c. Protein
- d. Fibre

Q36

During an activity that lasts for 20 minutes which energy system will be predominantly used to produce ATP? (1 mark)

- a. The phosphocreatine system
- b. The aerobic system
- c. The lactic acid system
- d. The cardiovascular system

Q37

What is a synergist? (1 mark)

- a. A muscle that assists in carrying out a joint action
- b. A muscle that has the main role in carrying out a joint action
- c. A muscle that relaxes while the prime mover contracts
- d. A muscle that stabilises a joint during an exercise

Q38

What is the antagonist during a dumbbell curl exercise? (1 mark)

- a. The triceps
- b. The biceps
- c. The deltoids
- d. The pectorals

Q39

What will happen to slow twitch muscle fibres as a result of long term endurance training? (1 mark)

- a. They will develop more mitochondria
- b. They will use less oxygen
- c. Metabolic activity will decrease
- d. They will fatigue more quickly

Q40

Which of the following affects the strength of a muscle contraction? (1 mark)

- a. The amount of glycogen stored in the muscle
- b. The amount of fat stored in the muscle
- c. The range of movement at the working joint
- d. The number of motor units recruited