GCSE PE PLCs 1.2.4 & .5 A healthy active lifestyle and your muscular & skeletal system End of Unit Exam

1. Which one of the following muscles is contracting to allow the cyclist in to flex his leg at the knee? **(1)**

A *Trapezius*
B *Hamstrings*
C *Gastrocnemius*
D *Quadriceps*

2. In order for the gymnast to achieve and maintain the position in he needs to have strong bones. Which of the following nutrients is essential in the diet for bone strength? **(1)**

A *Protein*
B *Vitamin C*
C *Carbohydrate*
D *Vitamin D*

3 Which **one** of the following statements correctly explains the term isometric? **(1)**

A *An isometric muscle contraction does not result in movement*
B *A gymnast running across the floor towards the vault is using isometric muscle contractions*
C *A swimmer using her leg muscles to 'explode' from the blocks when the whistle blows uses isometric contractions*
D *An isometric muscle contraction is less strenuous than an isotonic contraction. This means the muscle can continue to work for longer.*

4 Which **one** of the following statements is correct? **(1)**

A *Flexion, extension and abduction are all possible at the shoulder*
B *Tennis elbow, badminton elbow and athletes ankle are all types of joint injury*
C *Flexion, extension and abduction are all possible at the knee*
D *Compound, greenstick and brownstick are all types of fracture*

5 The skeletal system has a very important role to play in allowing us to lead a healthy, active lifestyle. Give **two** examples to demonstrate how the role of the skeleton helps us to be active. **(2)**

6 Figure 7 shows two basketball players. One player has flexed his arm at the elbow to control the ball. His opponent has moved his extended arm away from the mid-line of the body to try to intercept the next pass.

a) Name the muscle that contracts in order to flex the arm at the elbow**.** **(1)**

b) Name the joint action occurring at the shoulder as the arm moves away from the mid-line of the body. **(1)**

7 Complete the statements below by identifying which muscles are contracting to allow the gymnast in Figure 4 to achieve the described actions.

(a) Keeping the arm straight at the elbow. **(1)**
(b) Keeping the leg straight at the knee. **(1)**
(c) Moving the arms away from the mid-line of the body. **(1)**
(d) Pointing the toes. **(1)**

8 The skeletal system plays an important role in allowing for a healthy, active lifestyle.

Identify **three** functions of the skeletal system in use during physical activity **(3)**
Give **one** example of how each function is used during a game of basketball. **(3)**

9 A

B

a) This action is called a press-up. When moving from position B to position A movement takes place at the elbow and the shoulder. Identify the types of movement that are taking place as well as the major muscles that are causing it. **(4)**

b) Explain which type of muscular contraction is taking place as you move the body from position B to position A **(3)**

10 Identify an exercise activity that will result in an increase in bone density. **(1)**

11 Describe how you would treat a soft tissue injury like a sprain **(2)**

12 A healthy, active lifestyle will have an impact on the body systems. Describe some of the effects of participation on the body's skeletal and muscular systems. In your answer you may consider:
• the immediate and short-term effects of participation on each system
• the effects of regular participation and long-term effects on each system**.** **(6)**

Total marks; 34 marks