Muscle and Skeletal Movement

18 minutes

15 marks

Q1. Movement occurs through the combination of the skeletal system and the muscular system.

(i) **State one bone, one joint** and **one muscle** which would be involved when the arm is moved.

Named bone.....

Named joint .....

Named muscle .....

(3)

(ii) **Explain** what is meant by abduction.

.....

.....

.....

(2)
(Total 5 marks)

Q2. Physical activity requires movement using bones and muscles.

(i) Name **three** major bones which are located in the leg.

Bone 1

.....

Bone 2

.....

Bone 3

.....

(3)

(ii) Name **two** muscles which are also located in the leg.

Muscle 1

.....

Muscle 2

.....

(2)
(Total 5 marks)

Q3. Movement occurs when bones and muscles work together.

(i) **Explain** what is meant by extension.

Extension

.....

.....

.....

(2)

(ii) Give **two** examples of sporting situations where extension occurs.

Example 1

.....

.....

.....

Example 2

.....

.....

.....

(2)

(iii) **Name** a muscle which produces the movement that you have chosen in **one** of your examples above.

Physical movement .....

Named muscle .....

(1)

(Total 5 marks)

M1. (i) Award **one** mark for correctly stating a **bone** in the arm, **one** mark for correctly stating a **joint** and **one** further mark for correctly stating a **muscle.**

- bones – humerus, ulna, radius, carpals, metacarpals, phalanges
- joints – shoulder, elbow, wrist (possible hinge in fingers)
- muscles – biceps, triceps

3

(ii) Award up to **two** marks for correctly **explaining** abduction

- the movement of a bone or limb / away from the body

2

[5]

M2. (i) Award **one** mark for **each** correctly named bone:

- Femur
- Patella
- Tibia
- Fibula.

3

(ii) Award **one** mark for **each** correctly named muscle:

- Gluteals
- Quadriceps
- Hamstrings
- Gastrocnemius/calf
- Soleus.

2

[5]

M3. (i) Award up to **two** marks for correctly explaining what extension is:

- The increasing of an angle/between two bones
- A joint which is straightened so that one of the bones of the joint moves/away from the other
- The action of opening/ a joint.

2

(ii) Award **one** further mark for **each** correct example given:

- Straightening the leg at the knee when kicking a football
- Straightening the arm at the elbow when throwing a ball
- A correct actual example such as performing a triceps extension.

Accept the above plus any other suitable examples.

2

(iii) Award **one** mark for **each** correctly named muscle which must correspond to the answer given in (ii) above:

- Straightening the leg at the knee – quadriceps
- Straightening the arm at the elbow – triceps.

1

[5]