

Welland Gouldsmith Schools

Class: V

Subject: Science

Chapter: The Human Body – A Wonderful Machine

Answer Key

(A) Choose the correct answer:

1. Movements of the human body are produced by the contraction and relaxation of:

(c) muscles

2. It helps in balancing our body and keeps upright position.

b) cerebellum

3. The brain, the spinal cord and the nerves together form our:

(a) nervous system

4. The backbone is made-up of 33 small bones called:

(c) vertebrae

5. Muscles that work on our will are called:

(a) Voluntary muscles

B) Define the following terms:

a) Vertebrae: Each small bone of the long backbone.

b) Bone marrow: A soft, fatty substance found in the bones of the body.

c) Voluntary muscles: The muscles which are under the control of our will.

d) Tendons: Tough white fibrous tissues that connect muscles to bones.

e) Floating ribs: The last two pairs of ribs that are not attached to the breastbone.

C) Give one function of the following:

- a) Ribs: It protects the heart and lungs from injury.
- b) Facial bones: They protect the major sense organs.
- c) Pivot joint: It allows the skull to be moved from side to side and up and down.
- d) Red blood cells: They carry oxygen to the different parts of the body.
- e) Backbone: It protects the delicate spinal cord.

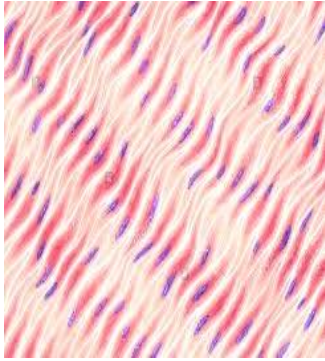
D) State true or False.

- a) The blood in the body is full of tiny holes. False
- b) 14 facial bones form the face. True
- c) There are 33 vertebrae in the backbone. True
- d) Ligaments join muscles to bones. False
- e) Reflex actions are controlled by the spinal cord. True

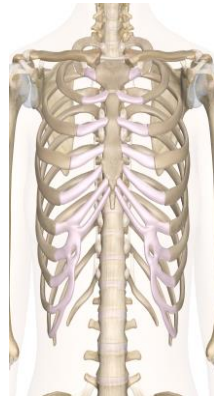
E) Give two examples of the following:

- a) Voluntary muscles: Biceps and triceps muscles
- b) Gliding joints: Wrist and ankle, between the vertebrae of the spine.
- c) Pivot joint: Skull and the first two vertebrae of the spine.
- d) Hinge joint: Elbow, Knee, toe and finger.
- e) Ball and socket joint: Hip and shoulder joint.

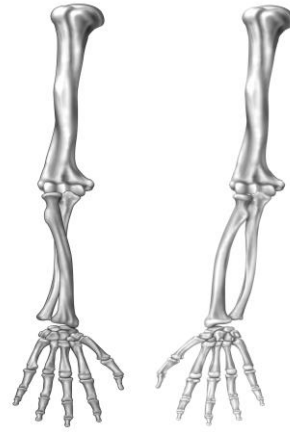
F) Identify the following:



a) Involuntary muscles



b) Breast bone



c) Bones of forearm



d) Brain



e) Immovable joints

G) Answer the following questions:

a) What is reflex action?

Ans: When you step on a thorn, your foot automatically pulls away. Such actions, where you do not stop to think, are known as reflex actions. These are controlled by spinal cord.

b) What are the three parts of the brain? State one function of the brain.

Ans: The three parts of the brain are cerebrum, cerebellum and medulla oblongata. The main function of the brain is to control our thoughts, memory and speech, movement of arms and legs, and the function of many organs within our body.

c) State two point of difference between Sensory nerves and Motor nerves.

Sensory nerves	Motor nerves
i) Sensory nerves carry messages from the sense organs to the brain the brain or spinal cord to the or the spinal cord.	Motor nerves carry orders from the brain or spinal cord to the muscles or glands.
ii) these nerves are connected to the sense organs	ii) these signals make the muscles move and the glands secrete juices.

d) How do muscles work?

Ans: Muscles work in pairs. They contract and relax. When you flex a muscle, it

contracts or gets shorter. When a muscle is relaxed, it goes back to its original form.

e) State the number of bones in ribs, face, skull, vertebrae, skeleton.

Ans: **Ribs:** 12 bones,

Face: 14 bones,

Skull: 8 bones,

Vertebrae: 33 bones

Skeleton: 206 bones