Chapter 8: Our Skeletal System & the Skin

EXERCISE [PAGE 64]

Exercise | Q 1.1 | Page 64
Fill in the blank with the proper word.
The place where two or more bones are connected is called a _____.

SOLUTION

The place where two or more bones are connected is called a **joint**.

Exercise | Q 1.2 | Page 64
Fill in the blank with the proper word.
Cells of the epidermis contain a pigment called _____.

SOLUTION

Cells of the epidermis contain a pigment called **melanin**.

Exercise | Q 1.3 | Page 64
Fill in the blanks with the proper words.
_____ and _____ are the two layers of the human skin.

SOLUTION

Epidermis and **dermis** are the two layers of the human skin.

Exercise | Q 1.4 | Page 64
Fill in the blank with the proper word.
The human skeletal system is divided into _____ parts.

SOLUTION

The human skeletal system is divided into **two** parts.

Exercise | Q 2 | Page 64
Match the pairs.

Group 'A'	Group 'B'
(1) Ball and socket joint	(a) Knee
(2) Hinge joint	(b) Wrist
(3) Gliding joint	(c) Shoulder

Get More Learning Materials Here : CLICK HERE www.studentbro.in

SOLUTION

Group 'A'	Group 'B'
(1) Ball and socket joint	(c) Shoulder
(2) Hinge joint	(a) Knee
(3) Gliding joint	(b) Wrist

Exercise | Q 3.1 | Page 64

Right or wrong? If wrong, write the correct sentence.
Bones are soft.

1. Right
2. **Wrong**

SOLUTION

Wrong

correct sentence: Bones are hard and non-flexible.

Exercise | Q 3.2 | Page 64

Right or wrong? If wrong, write the correct sentence.
The human skeleton protects the internal organs.

1. **Right**
2. Wrong

SOLUTION

Right

Exercise | Q 4.1 | Page 64

Put a ✓ mark at the proper place.
The system which gives a definite shape to our body.

1. Excretory system
2. Respiratory system
3. **Skeletal system**
4. Circulatory system

SOLUTION

Skeletal system

Exercise | Q 4.2 | Page 64

Put a ✓ mark at the proper place.
The _____ joint is seen in fingers and toes.

1. **Hinge joint**
2. Ball and socket joint

Get More Learning Materials Here : CLICK HERE www.studentbro.in

3. Immovable joint
4. Gliding joint

SOLUTION

Hinge joint

Exercise | Q 5.1 | Page 64

Answer the following question in your words.
What are the functions of your skin?

SOLUTION

The most important functions of the skin are:

- Protection − The skin provides protection to the body from mechanical injury, ultraviolet rays, from disease-causing microbes, and prevents desiccation.
- Temperature regulation − The skin helps in the maintenance of body temperature at a constant.
- The skin contains numerous sense receptors, which help in perceiving the surroundings.
- The skin is also involved in the synthesis of vitamins such as Vitamin D.
- The skin also helps in disposing of the excess water and salt by evaporation.

Exercise | Q 5.2 | Page 64

Answer the following question in your words.
What should you do to keep your bones strong and healthy?

SOLUTION

The following things should be done in order to keep our bones healthy and strong:

- Have calcium-rich foods like milk, yogurt as calcium is an important component of bones.
- We need to take enough vitamin D as it helps in the absorption of calcium present in foods.
- Some other important nutrients like potassium, vitamin K and magnesium also help the body absorb and use calcium.
- Daily exercise is required to keep our bones in a state of good health.

Exercise | Q 5.3 | Page 64

Answer the following question in your words.
What are the functions of the human skeletal system?

SOLUTION

The skeletal system includes all of the bones and joints in the body. It performs the following functions:

Get More Learning Materials Here : CLICK HERE www.studentbro.in

- gives a definite shape to the body
- provides support and protection for the soft tissues that make up the rest of the body
- provides attachment points for muscles to allow movements at the joints

Exercise | Q 5.4 | Page 64

Answer the following question in your words.
Which are the various reasons due to which our bones might break?

SOLUTION

Bones are structures that are hard and non-flexible. The chances of the breaking of bones occur if the bones are weak. There are various reasons due to which bones may become weak and may break:

- certain diseases can result in weakening of the bones and cause them to break. For example, osteoporosis and arthritis are diseases which result in the weakening of bones
- deficiency of nutrients like calcium and vitamin D
- certain stress or injury may result in fracturing of bones
- bone loss also occurs with age and thus making them more fragile
- alcohol and smoking also have a negative impact on bones and bone density

Exercise | Q 5.5 | Page 64

Answer the following question in your words.
What are the different types of bones? How many types are there?

SOLUTION

There are 4 types of bones:

1. **Flat bones:** They are thin shaped and, in some cases, provide mechanical protection to soft tissues beneath or enclosed by the flat bone.
2. **Irregular bones:** They have complicated shapes that cannot be classified as 'long', 'short' or 'flat'. Their shapes are due to the functions they fulfill within the body.
3. **Long bones:** These type of bones are longer than wider and they function to support the weight of the body and facilitate movement
4. **Short bones:** They are almost cube-shaped bones as they are equal in their length and width.

Exercise | Q 6.1 | Page 64

What will happen if – There are no joints in our body?

Get More Learning Materials Here : CLICK HERE www.studentbro.in

SOLUTION

Joints are the places where 2 bones are joined together. They permit the various kinds of movement which we carry out in order to fulfill our requirements. In absences of these joints, our body would become stiff and we would not be able to carry out our daily tasks.

Exercise | Q 6.2 | Page 64
What will happen if – There is no melanin pigment in our skin?

SOLUTION

Melanin is a pigment that is found in skin and hair as well. It is important for two reasons, firstly it imparts colour to our skin and the tone of our skin depends on the amount of melanin pigment, secondly, it protects our skin and the inner parts from ultraviolet rays. If the melanin pigment is absent, all the humans will have the same skin colour and we will become susceptible to the UV rays present in our atmosphere.

Exercise | Q 6.3 | Page 64
What will happen if – Instead of 33 vertebrae in our body, we had one single and straight bone?

SOLUTION

The 33 vertebrae together form the structure which we know as a spine. They permit the movement of our spine so that we can bend it easily and carry out other functions. In other words, we can say that they provide flexibility to the spine. If in place of them, only one single and straight bone will be present then we would lose our flexibility and remain in fixed positions. We would always stand straight like a pole and would not be able to sit down or perform other activities.

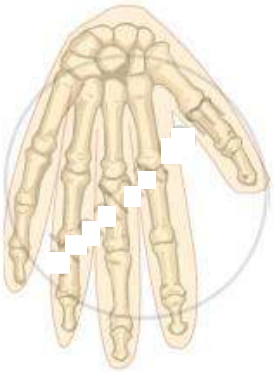
Exercise | Q 7.1 | Page 64
Draw diagrams.
Types of joints

SOLUTION

Types of joints:

1. Gliding joint

Get More Learning Materials Here : CLICK HERE www.studentbro.in



2. Ball and socket joint

3. Hinge joint

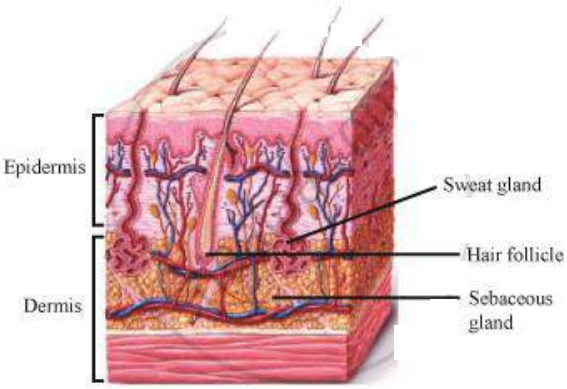
Exercise | Q 7.2 | Page 64

Draw diagram.
Structure of the skin

SOLUTION

Structure of skin

Get More Learning Materials Here : CLICK HERE www.studentbro.in



Get More Learning Materials Here : CLICK HERE www.studentbro.in