# TCE Communication and Expression Techniques

**University of Jijel**

***Level: 2nd Year (Licence)***

*Biological Sciences*
*Food Sciences*
*Agricultural Sciences*
*Ecology and Environmental Sciences*

## Topic 1. Digestive system

The digestive system is made up of the gastrointestinal (GI) tract and the organs that help with digestion: the liver, pancreas, and gallbladder. The GI tract is a long tube that starts at the mouth and ends at the anus. It includes the mouth, esophagus, stomach, small intestine, large intestine, and anus. The liver, pancreas, and gallbladder are solid organs that support digestion.

The small intestine has three parts: the duodenum (first part), the jejunum (middle), and the ileum (last part). The large intestine includes the appendix, cecum, colon, and rectum. The appendix is a small pouch attached to the cecum, which is the beginning of the large intestine. After the cecum comes the colon, and the rectum is the last section.

Helpful bacteria, called gut flora or the microbiome, live in the digestive tract and play an important role in breaking down food. The digestive process is also controlled by nerves, blood, and hormones, which work together with the organs.

Digestion is important because the body needs nutrients from food and drinks to stay healthy, grow, and have energy. Nutrients include proteins, carbohydrates, fats, vitamins, minerals, and water. The digestive system breaks them into small pieces so the body can absorb and use them. The large intestine mainly absorbs water and turns the leftover material into stool.

Most nutrients are absorbed in the small intestine. Special cells move nutrients into the blood, which then carries sugars, amino acids, glycerol, and some vitamins and minerals to the liver. The liver stores and sends these nutrients where the body needs them.

The lymphatic system also helps by absorbing fatty acids and fat-soluble vitamins. In the end, the body uses sugars, amino acids, fatty acids, and glycerol to make energy, repair cells, and grow.

**Questions, critical analysis, and writing Skills**

**1.** Explain the difference between the GI tract and the solid organs of the digestive system.

**2.** Describe the journey of food through the digestive system, from the mouth to the anus.

**3.** Why is the microbiome important for digestion and overall health?

**4.** In your own words, explain why digestion is necessary for the body.

**5.** How does the circulatory system and the lymphatic system help in the absorption of nutrients?

**6.** Summarize the main function of the liver in the digestive process.

**7.** What could happen to the body if nutrients were not broken down into smaller parts?

**8.** Compare the role of the small intestine in nutrient absorption with the role of the large intestine in water absorption.

**9.** Write a short synthesis explaining how different organs, bacteria, and systems (nervous, circulatory, lymphatic) work together to ensure proper digestion.

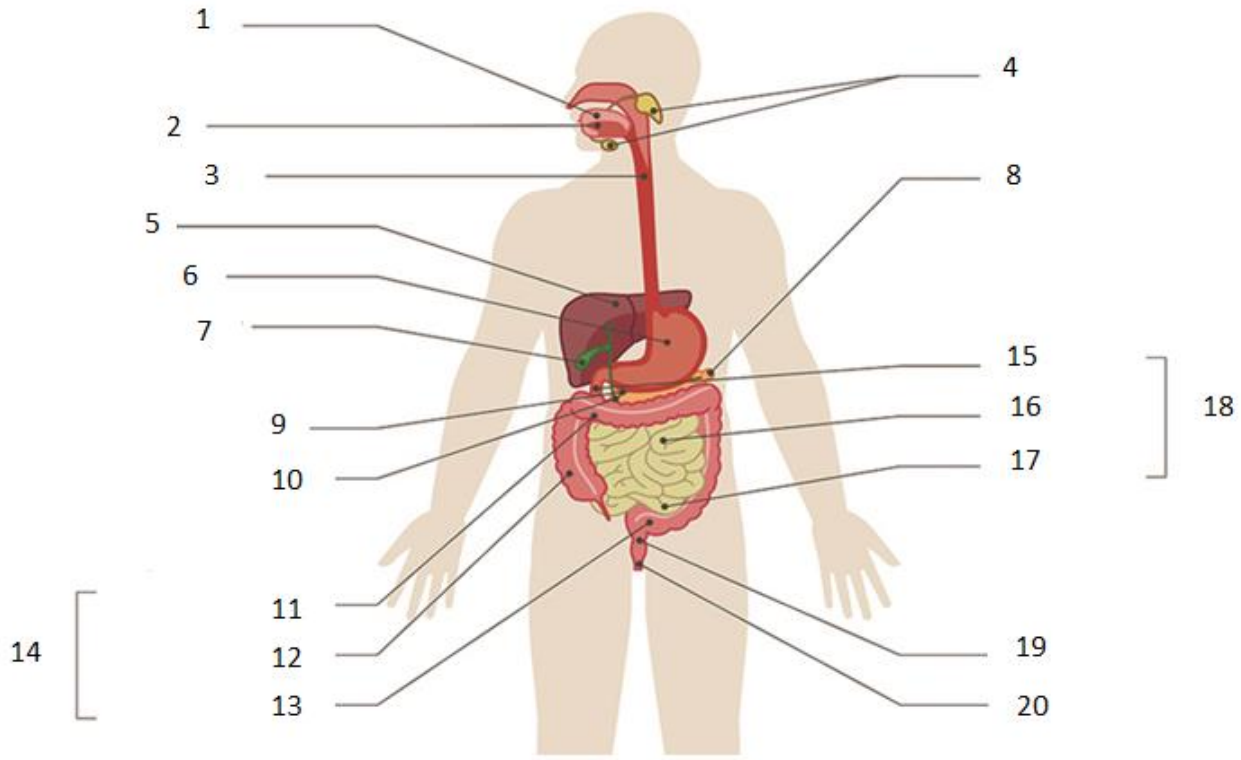
**10.** Give the definition of the terms below:

GI tract / duodenum /jejunum /iIleum /appendix /cecum/colon /rectum/microbiome (gut flora) /nutrients lymphatic system.

**11.** Match the nutrients with their final products of digestion:

| | |
|---|---|
| - Proteins | a. Simple sugars |
| - Fats | b. Amino acids |
| - Carbohydrates | c. Fatty acids and glycerol |

**12.** According to the figure, name each part of the body involved in digestion?

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