**CH17 Blood**

1. **Which of the following comprise a logical sequence of vessels as blood exits the heart?**

Arteries, capillaries, veins

1. **The major function of the most common plasma protein, albumin, is \_\_\_\_\_\_\_\_\_\_.**
2. maintenance of plasma osmotic pressure
3. buffering changes in plasma pH
4. **Red blood cells are efficient oxygen transport cells. Of the following characteristics, which is the major contributor to the significant oxygen-carrying capacity of a red blood cell?**

Red blood cells are biconcave discs.

1. **Oxygen binds to the \_\_\_\_\_\_\_ portion of hemoglobin.**

iron atom

1. **A patient with low iron levels would experience which of the following symptoms?**

An increase in fatigue疲劳

6．**What response would you expect after traveling to high altitude for two weeks?**

The kidneys would secrete elevated amounts of erythropoietin.

7．**If a patient has pernicious anemia, the inability of the body to absorb vitamin B12, the patient \_\_\_\_\_\_\_\_\_\_.**

would have a decreased number of red blood cells

8． **Which of the following statements is *true* regarding the mechanism controlling movement of white blood cells into damaged areas?**

White blood cells exit the capillary and move through the tissue spaces with cytoplasmic extensions by following a trail of chemicals produced by other white blood cells.

9． **An elevated neutrophil count would be indicative of \_\_\_\_\_\_\_\_.**

an acute bacterial infection

10．**Antihistamines counter the actions of which white blood cells?**

Basophils

**11．Leukemia is a general descriptor for which of the following disorders?**

Overproduction of abnormal leukocytes

12．**A \_\_\_\_\_\_\_\_\_\_ is the progenitor祖先 of platelets.**

megakaryocyte

**13．Why don’t platelets form plugs in undamaged vessels?**

Only contact of platelets with exposed collagen fibers and von Willebrand factor causes them to be sticky and form plugs.

14．**Activation of the extrinsic pathway of coagulation requires exposure of the blood to \_\_\_\_\_\_\_\_\_.**

tissue factor III

15．**Why doesn’t a clot fill the entire vasculature system once it has started forming?**

1. Rapid blood flow washes away and dilutes activated clotting factors.
2. Thrombin is inactivated by antithrombin III if it enters the general circulation.

16．**An oral heparin medication might be prescribed for a patient who:**

is at risk for embolism (clots that spontaneously form and wedge in blood vessels).

17．**Why is it possible for a person with type A negative blood to have a negative reaction when receiving a transfusion of whole type O negative blood?**

The type O blood may have high enough levels of anti-A antibodies that could cross-react with the recipient’s cells.

18．Which organ produces most of the plasma proteins?

**Liver**

19．Which of the following is present in a red blood cell?

**Plasma membrane**

20．Carbon dioxide bonds to what part of the hemoglobin molecule?

**Heme**

21．Red blood cells enter the bloodstream as \_\_\_\_\_\_\_.

**reticulocytes**

22．These cells are important in fighting parasitic infections.

**Eosinophils**

23．Some of these cells become plasma cells which can produce antibodies.

**Lymphocytes**

24．These cells can enter the tissues as macrophages and are important in chronic infections.

**Monocytes**

25．The protein backbone of a blood clot is \_\_\_\_\_\_\_\_.

**fibrin**

26．Platelets release this substance, which contributes to vascular spasms.

**Serotonin**

27．Which enzyme converts fibrinogen into fibrin?

**Thrombin**

28．Karen has AB negative blood. Which blood types can receive Karen’s blood?

**AB positive**

29．This condition is caused by abnormal hemoglobin.

**Thalassemia**