

Hematology Questions

1. In high altitudes, the hemoglobin value is:

A. Higher

B. Lower

C. The same

D. Not altered

2. The hemoglobin types found in a normal adult are:

A. S, A, F

B. A, A₂, C

C. A₂, F

D. A, A₂, F

3. The polypeptide chains of hemoglobin A are composed of:

A. 1 alpha, 3 beta

B. 2 alpha

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C. 2 alpha, 2 beta

D. 1 alpha, 2 beta, 1 delta

4. The heme portion of the hemoglobin molecule consists of:

A. Porphyrin ring with a molecule of Fe in the center.

B. A polypeptide chain containing Fe

C. A pyrrole ring with four molecules of Fe in the center.

D. Four porphyrin rings, each containing a molecule of Fe in the center

5. In the breakdown of RBCs, bilirubin is:

A. Reused by new red cells

B. Oxidized to biliverdin

C. Returned to the pool

D. Excreted

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6. An iron protein complex which combines with oxygen and carbon dioxide is:

A. Hematin

B. Hemosiderin

C. Hemoglobin

D. Oxyhemoglobin

7. Which of the following contain or are erythrocytic inclusions of RNA and can be observed by staining with new methylene blue?

A. Howell-Jolly bodies

B. Heinz bodies

C. Pappenheimer bodies

D. Reticulocytes

E. Basophilic stippling

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8. The simplest method for detecting increased RBC production is:

A. A measure of the RBC survival

B. Ferrokinetics studies

C. Reticulocyte enumeration

D. Bone marrow biopsy

9. The type of staining we use to stain reticulocytes is called

A. Supra-vital

B. Ultra-vital

C. Non-vital

D. Counter staining

10. A reticulocyte, when properly stained, exhibits:

A. A nucleus

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B. Basophilic stippling

C. A network of granular filaments

D. Particles of iron

11. The dark blue staining of reticulum in the reticulocyte, with new methylene blue N stain, is due to:

A. Organelles

B. Ribosomes

C. RNA

D. DNA

12. The chief function of the platelet is to:

A. Fight infection

B. Aid in coagulation

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C. Antibody formation

D. Carry oxygen

13. Using the brilliant cresyl blue preparation for reticulocytes, they may be confused with:

A. Macrocytes

B. Dohle bodies

C. Heinz bodies

D. Auer bodies

14. The precursor of the platelet is:

A. Myeloblast

B. Megablast

C. Megakaryocyte

D. Plasmablast

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15. The term thrombocytopenia indicates a/an:

A. Abnormally low number of thrombocytes

B. Abnormally high number of thrombocytes

C. Normal number of platelets

D. Abnormally low total white blood count

16. The normal number of thrombocytes per ul is:

A. 5,000 - 10,000

B. 125,000 - 150,000

C. 150,000 - 450,000

D. 500,000 - 1,000,000

17. In allergic conditions, we commonly find an increase of:

A. Red cells

B. Lymphocytes

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C. Neutrophils

D. Eosinophils

18. Which of the following is not a characteristic of platelets?

A. The presence of a nucleus

B. Size of 2 to 4 μm

C. Cytoplasm a light blue with red-purple granules

D. A discoid shape as an inactive cell

19. The nucleus of a cell consists primarily of

A. DNA

B. RNA

C. Golgi bodies

D. Ribosomes

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20. RBC production is initiated by the hormone:

- A. Luteinizing (LH)
- B. Interstitial cell stimulating (ICSH)
- C. Parathyroid Hormone
- D. Erythropoietin