



3. Hemoglobin is measured as cyano Methemoglobin, is a spectrophotometer at a wave length of:
 - a. 540 nm
 - b. 620 nm
 - c. 360 nm
 - d. 450 nm
 - e. 720 nm

4. Drabkin's solution is used in:
 - a. Counting of RBCs
 - b. Counting of WBCs
 - c. Counting of platelets
 - d. Hematocrit determination
 - e. Hemoglobin estimation

5. In the Cyanmethemoglobin method for the determination of hemoglobin, the test tube is allowed to stand the following number of minutes to allow for the formation of Cyanmethemoglobin:
 - a. 1-5 min
 - b. 5-10 min
 - c. 10-15 min
 - d. 15-20 min
 - e. None of the above

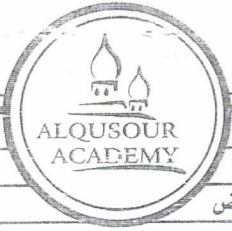
6. The amount of cyanide solution used to estimate Hb is:
 - a. 1 ml
 - b. 3.5 ml
 - c. 5 ml
 - d. 10 ml
 - e. 15 ml

7. All of the following decrease the hemoglobin in cells except:
 - a. Hemogloinopatheis
 - b. Blood loss
 - c. Polycythemia
 - d. Iron deficiency anemia

8. All of the following cause errors in hemoglobin measurement except:
 - a. The volume of blood sample is 20 ul
 - b. Old or deteriorated reagents
 - c. Dirty cuvette
 - d. Using wavelength of 450 nm
 - e. Mixed sample stand for 2 min before measurement



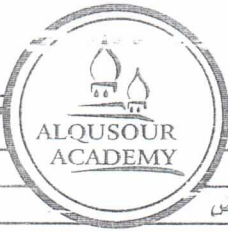
9. The normal range for the MCV is:
- 33-38%
 - 27-32 micro grams
 - 14.5 gm
 - 10-15 ml
 - 80-90 cu micron
10. The normal values for the MCH are:
- 14-18 g/ 100 ml
 - 33-38%
 - 80-90 cu micron
 - 27-32 micro gram
 - 10-15 ml
11. To determine the MCV you divide the:
- Hct X 10 by the Hb in grams
 - Hb in grams by the RBCs in millions
 - RBCs by the Hct
 - RBC by the Hb in grams
 - Hct X 10 by the RBCs in millions
12. The percentage of volume of packed red blood cells to the volume of whole blood is called:
- MCV
 - PCV
 - MCH
 - Hb
 - MCHC
13. The normal range of hematocrit of a newborn is:
- 37% - 47%
 - 40% - 54%
 - 50% - 60%
 - 14% - 20%
 - None of the above
14. All of the following are correct in PCV measurement except:
- Heparinized capillary tube used to collect blood
 - The clay material put near to the centre of centrifuge
 - The layer appear above the RBCs called puffy coat
 - Centrifugation done for 5 minutes
 - The speed of the centrifuge should be 11000 rpm



15. Which of the following puffy coat percentage considered abnormal
- 0.5
 - 1
 - 2
 - 3
 - None of the above
16. Mean corpuscular hemoglobin concentration measured by:
- Hct X by the Hb in grams
 - Hb X 100 by the Hct
 - RBCs by the Hct
 - RBC by the Hb in grams
 - Hct X 10 by the RBCs in millions
17. In a differential whit cell count, the following cell would have the highest normal range:
- Neutrophils
 - Eosinophils
 - Lymphocytes
 - Monocytes
 - Basophils
18. The largest cell found in the normal blood is:
- Neutrophils
 - Eosinophils
 - Lymphocytes
 - Monocytes
 - Basophils
19. In differential white cell count the following cell have the lowest normal range is:
- Neutrophils
 - Eosinophils
 - Lymphocytes
 - Monocytes
 - Basophils



20. The white blood cell which has red granules in the cytoplasm and a nucleus which is usually divided into 2 segments is:
- Neutrophils
 - Eosinophils
 - Lymphocytes
 - Monocytes
 - Basophils
21. If a patient has a white cell count of 10,000 and differential showing 30% Monocytes and 70% lymphocytes, his absolute monocyte count would be:
- 7,000 mm^3
 - 10,000 mm^3
 - 3,000 mm^3
 - 3.5 mm^3
 - Could not calculate from above data
22. All of the following in performing differential WBCs count are correct except:
- Wrights stain used for 20 minutes
 - Using angle less than 45 leads to thicker smear
 - Fast spreading leads to thin smear
 - Methanol used in fixation of the smear
 - Eosin gives the red color in wrights stain
23. The magnification used for differential WBCs count is:
- 4X
 - 10X
 - 40X
 - 100X
24. The cell type in differential WBCs count in which the nucleus is nearly covered by black granules is:
- Neutrophils
 - Eosinophils
 - Lymphocytes
 - Monocytes
 - Basophils



25. Which of the following cells in differential WBCs count contain rounded nucleus:

- Neutrophils
- Eosinophils
- Lymphocytes
- Monocytes
- Basophils

26. Which of the following cells in differential WBCs count converted to macrophages:

- Neutrophils
- Eosinophils
- Lymphocytes
- Monocytes
- Basophils

27. Which of the following blood types can receive blood from any types:

- A
- B
- AB
- O

28. Person with AB blood type carry which type of antibodies:

- Anti A
- Anti B
- A and B antigens
- Neither Anti A and B
- Both anti A and Anti B

29. Person with OO genotype will carry which type of antigens:

- Antigen A
- Antigen B
- Both antigens A and B
- Neither antigen A or B

30. Person with positive blood type this means he carry what antigen:

- A
- B
- A and B
- D
- None of the above



Key Answer

Question No.	Answer
1	E. Cyanide
2	E. Drabkin's solution
3	A. 540 nm
4	E. Hemoglobin estimation
5	B. 5-10 min
6	C. 5 ml
7	C. Polycythemia
8	A. The volume of blood sample is 20 ul
9	E. 80-90 cu micron
10	D. 27-32 micro gram
11	E. Hct X 10 by the RBCs in millions
12	B. PCV
13	C. 50% - 60%
14	B. The clay material put near to the centre of centrifuge
15	D. 3
16	B. Hb X 100 by the Hct
17	A. Neutrophils
18	D. Monocytes
19	E. Basophils
20	B. Eosinophils
21	C. 3,000 mm ³
22	B. Using angle less than 45 leads to thicker smear
23	D. 100X
24	E. Basophils
25	C. Lymphocytes
26	D. Monocytes
27	C. AB
28	D. Neither Anti A and B
29	D. Neither antigen A or B
30	D. D

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