

RETICULOCYTE AND IRF QUESTIONS

SECTION 2

1. Image Processing methods used the same supravital process used in the manual eyecount reticulocyte method?
 - a. True
 - b. False

2. Which semi-automated reticulocyte method does not use new methylene blue?
 - a. Abbott
 - b. Bayer
 - c. Beckman Coulter
 - d. None of the above

3. Reagent B in the Coulter semi automated reticulocyte count on the STKS is:
 - a. Hydrochloric acid
 - b. Sulfuric Acid
 - c. Water
 - d. None of the above

4. The first fluorescent stain used by Schlosshardt and Joossens was:
 - a. New Methylene blue
 - b. Auramine O
 - c. Pyranine Y
 - d. Thiazole Orange

5. Which of the following is true about the flow cytometry reticulocyte method
 - a. Greater precision and accuracy than the manual eyecount method
 - b. Requires knowledge of other flow cytometry applications, sample preparation and software
 - c. Requires highly trained personnel
 - d. Does not lend itself well to routine laboratory use
 - e. None of the above
 - f. All of the above

6. Which of the following does **not** interfere with flow cytometry reticulocyte counts?
 - a. Large platelets
 - b. Thrombocytopenia
 - c. Red cell inclusions
 - d. Leukomoid reactions

7. The first automated reticulocyte counter was the Sysmex XE 2100
- True
 - False
8. Which of the following is true about the first automated reticulocyte counter:
- Requires manual preparation of the sample before analysis
 - Inexpensive
 - Cost effective for the small to medium sized lab
 - Reports an absolute reticulocyte counts by performing a RBC count

Match the following dyes to the instrument the dye is used on:

- | | | |
|---------------------|-------|-----------------|
| 9. Auromine O | _____ | a. CD 4000 |
| 10. CD4K530 | _____ | b. Advia 120 |
| 11. Thiazole Orange | _____ | c. R-1000 |
| 12. Oxazine 750 | _____ | d. Pentra 120 R |

13. Auramine O stains RNA in the red blood cell, but does not stain DNA
- True
 - False
14. Which of the following cells show the most fluorescence in a reticulocyte count mode:
- Red Blood Cells
 - Reticulocytes
 - White Blood Cells
 - None of the above
15. A reticulocyte count performed by the Coulter VCS method counts 32,000 red cells to determine the reticulocyte count:
- True
 - False
16. Which of the following Coulter reticulocyte parameters are for research use only:
- Reticulocyte %
 - Immature Reticulocyte Fraction (IRF)
 - Mean Sphered Cell Volume (MSCV)
 - Mean Reticulocyte Volume (MRV)
17. On the Cell Dyn 4000, reticulocytes are measured by a combination of impedance counting and fluorescence intensity
- True
 - False

18. Which of the following parameters do not interfere with the Bayer Advia 120 reticulocyte method?
- a. Giant platelets
 - b. Malarial parasites
 - c. Pappenheimer bodies
 - d. Howell Jolly bodies
 - e. All of the above
 - f. None of the above
19. In the reference range study by Castriota in 1992, the IRF decreased as the age increased
- a. True
 - b. False
20. In the Choi (2001) study of iron deficiency in middle and high school girls, the IRF increased as the iron levels increased.
- a. True
 - b. False



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