NAME: _____ DATE: _____

QUIZ

CYTOPREPARATION No. 5

1. Which of the following properties of mounting media influence image quality?

   a. Color
   b. Viscosity
   c. Refractive index
   d. Thickness
   e. Solvent

2. For what thickness of cover glass are American-made objectives corrected?

   a. 0.13 mm
   b. 0.15 mm
   c. 0.16 mm
   d. 0.17 mm
   e. 0.18 mm

3. Match the No. thickness of cover glass to its application:

a. No. 0	_____ Cell spreads on a micro slide
b. No. 1	_____ Tissue under oil immersion
c. No. 1-1/2	_____ "Cooked" monolayer cell spreads
d. No. 2	_____ Nuclepore filters dissolved on a cover glass
	_____ Cell spreads on a cover glass

4. Low contrast images of cells can result from an excessively thick cover glass and a wide open aperture diaphragm. The former causes _____, while the latter causes _____.

5. T F Under ordinary conditions of use, an oil immersion objective is insensitive to cover glass thickness.

6. T F The thickness of mounting medium under a cover glass is usually so small as to have no effect on image quality.

7. Which one of the following properties of a mounting medium are responsible for the transparency of membrane filters?

   a. Dispersion
   b. Viscosity
   c. Refractive index
   d. Solvent
   e. Acid number

-over-

8. The boundaries of the pores in a Nucleopore filter cannot be made invisible by mounting the filter in a way based on the principle used for cellulosic filters because Nuclepore filters are made of a material which is:

   a. Isotropic
   b. Anisotropic
   c. Birefringent
   d. Doubly refracting
   e. Irradiated

9. Annual band formation in a mounting medium can be prevented by the addition of:

   a. Anti-oxidant
   b. Anti-reductant
   c. 2,6-di-tert.-butyl-p-cresol
   d. Oil soluble resin
   e. Plasticizer

10. In a microscope adjusted for Kohler illumination, which one of the following controls affects image quality most noticeably - especially under 40X?

    a. Field diaphragm
    b. Substage condenser diaphragm
    c. Auxiliary swing-in condenser
    d. Substage condenser height
    e. Centration of field diaphragm

EXTRA CREDIT Complete the following statement.

11. With regard to image formation, in a microscope cleanliness is next to _____.