Assignment 2

Due on 2020-02-13, 23:59:00 IST.

1. The resolution of an optical microscope is NOT dependent on which of the following?
   - The wavelength of monochromatic light
   - The refractive index of the lens
   - The intensity of light
   - The numerical aperture of the lens
   - By the phase is incorrect.
   - Status: Not Attempted

2. Calculate the numerical aperture and depth of field (DOF) of a microscope using the light of 400nm wavelength and μ=1.7 & μaperture of 0.67.
   - The numerical aperture of a lens
   - The intensity of light
   - μ
   - DOF
   - Status: Not Attempted

3. The refractive index of the immersion oil is 1.51 for an objective and 1.9 for the cover glass.
   - μ
   - μp
   - μaperture
   - μimmersion
   - Status: Not Attempted

4. Which of following is true for the light path (viewing) measurement using a linear intercept method?
   - Line cutting a boundary is taken as 0.5
   - Line starting at a point and terminated at the boundary is taken as 1
   - Line passing through a single point is taken as 1
   - Line starting at a point and terminated at 1
   - By the phase is incorrect.
   - Status: Not Attempted

5. The diameter of a cell is 5 μm. What is the necessary magnification of the objective to see this cell?
   - μ
   - μaperture
   - μimmersion
   - μp
   - Status: Not Attempted

6. What is the total magnification of a microscope using an objective of 40x and an eyepiece of 10x?
   - μ
   - μaperture
   - μimmersion
   - μp
   - Status: Not Attempted

7. Which of the following statement is true?
   - μ
   - μaperture
   - μimmersion
   - μp
   - Status: Not Attempted

8. Which of the following is true for the light path (viewing) measurement using a linear intercept method?
   - Line cutting a boundary is taken as 0.5
   - Line starting at a point and terminated at the boundary is taken as 1
   - Line passing through a single point is taken as 1
   - Line starting at a point and terminated at 1
   - By the phase is incorrect.
   - Status: Not Attempted

9. Which of the following statement is true?
   - μ
   - μaperture
   - μimmersion
   - μp
   - Status: Not Attempted

10. Which of the following statement is true for the light path (viewing) measurement using a linear intercept method?
    - Line cutting a boundary is taken as 0.5
    - Line starting at a point and terminated at the boundary is taken as 1
    - Line passing through a single point is taken as 1
    - Line starting at a point and terminated at 1
    - By the phase is incorrect.
    - Status: Not Attempted