Assignment 2

Due on 2020-02-12, 23:59 IST.

The due date for submitting this assignment has passed. Due to our records you have not submitted this assignment.

1) Which of the following lens defects is an ex-axial aberration?
   - Coma
   - Astigmatism
   - Chromatic
   - None of the above
   No, the answer is incorrect.
   Score: 0
   Accepted answers: Chromatic

2) The greater the aperture of the lens, less severe will be the spherical aberration.
   - True
   - False
   No, the answer is incorrect.
   Score: 0
   Accepted answers: False

3) Use a total magnification of ________, condenser is not required in light microscopy.
   - 12.5 x
   - 75 x
   - 50 x
   - 20 x
   No, the answer is incorrect.
   Score: 0
   Accepted answers: 25 x

4) In inclined plane illumination, ________ of light is used for information.
   - 20%
   - 45%
   - 70%
   - 100%
   No, the answer is incorrect.
   Score: 0
   Accepted answers: 20%

5) In light microscopy, during bright-field illumination mode, the region which appears bright are from ________
   - Low reflectivity rays
   - High reflectivity rays
   - Independent of reflectivity
   No, the answer is incorrect.
   Score: 0
   Accepted answers: High reflectivity rays

6) What is the nature of scattered light in the phase plate of Phase Contrast Microscope?
   - Transparent
   - Semi-transparent
   - Specular
   - Either semi-transparent or spray
   No, the answer is incorrect.
   Score: 0
   Accepted answers: Semi-transparent

7) In the optical geometry for dark-field microscopy, the NA of the objective is ________ than the NA of the condenser and dark-field annulus.
   - lower
   - higher
   No, the answer is incorrect.
   Score: 0
   Accepted answers: lower

8) The overall resolving power of an Optical Microscope depends on ________
   - NA of objective and illuminating system
   - NA of condenser and objective
   - NA of condenser and illuminating system
   No, the answer is incorrect.
   Score: 0
   Accepted answers: NA of objective and illuminating system

9) Which of the following statement is true?
   - A pure phase object exhibits phase and intensity but not alter the amplitude
   - A pure amplitude object exhibits the phase and energy but not alter the amplitude
   - A pure phase object reduces the amplitude and energy but not alter the phase of the emergent ray
   - A pure phase object reduces the amplitude and energy but not alter the phase of the emergent ray
   No, the answer is incorrect.
   Score: 0
   Accepted answers: A pure phase object reduces the amplitude and energy but not alter the phase of the emergent ray

10) In light microscopy, replacing green light with red one will ________ the minimum detectable distance
    - increase
    - decrease
    - not change
    No, the answer is incorrect.
    Score: 0
    Accepted answers: increase