Assignment 3

The deadline for submitting this assignment has passed. As per our records you have not submitted this assignment. Please confirm.

Due on 2020-02-19, 23:59 IST.

1. In differential interference contrast (DIC) microscopy, the relationship between amplitude and optical path differences is _______.
   - Direct
   - Indirect
   - Integer
   - Derivative
   No, the answer is incorrect.
   Accepted Answers: Derivative

2. The DIC optical system requires _______.
   - A polarizer and two polaroid prisms
   - Two polaroid and one non-polar prism
   - Two polaroid and one polaroid prism
   No, the answer is incorrect.
   Accepted Answers: Two polaroid and one non-polaric prism

3. In fluorescence microscopy, stokes shift is the shift of emitted spectrum to ______ wavelength and ______ energy when compared to excitation spectrum.
   - Longer and shorter
   - Shorter and longer
   No, the answer is incorrect.
   Accepted Answers: Longer and shorter

4. In fluorescence microscopy, the dichromatic mirror act as a band pass filter.
   - True
   - False
   No, the answer is incorrect.
   Accepted Answers: False

5. In the sample preparation for CM, the most commonly used TEM and pressure conditions during hot pressing process are _______.
   - 115°C, 15 – 30kN/m²
   - 130°C, 15 – 30kN/m²
   - 15°C, 15 – 30kN/m²
   No, the answer is incorrect.
   Accepted Answers: 115°C, 15 – 30kN/m²

6. The most etching technique employed in the specimen preparation for OM are _______.
   - Etch
   - Immersion
   - Etch
   Accepted Answers: Etch

7. Kaler's spectrums are generally used to each which of the following alloys?
   - Copper-base alloys
   - Nickel-base alloys
   - Aluminum-base alloys
   - Magnesium-base alloys
   No, the answer is incorrect.
   Accepted Answers: Aluminum-base alloys

8. What is the useful magnification of a microscope, if the numerical aperture of objective lens is 0.6?
   - 250 x 300
   - 50 x 100
   - 100 x 80
   - 200 x 400
   No, the answer is incorrect.
   Accepted Answers: 200 x 400

9. A microscope is set to 60x eyepiece and 60x objective. What is the total magnification?
   - 5,400 x
   - 3,600 x
   - 600 x
   No, the answer is incorrect.
   Accepted Answers: 3,600 x

10. Crystals of different orientations are rotated at different rates. This results in _______.
    - contrast change due to the ledge formation at grain boundaries
    - change in crystal orientation
    - segregation of grains
    - Reduction of strain
    No, the answer is incorrect.
    Accepted Answers: Contrast change due to the ledge formation at grain boundaries