Assignment 12

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

Due on 2020-04-22, 23:59 IST.

1) Functions of the apertures are to control the ... 1 point
   - collection angles
   - wavelength of the image formed by the lenses
   - image contrast
   - All of the above
   Accepted Answers:
   All of the above

2) The diaphragm's apertures discs are made up of ... 1 point
   - Al
   - Pt
   - Ti
   - Ni
   Accepted Answers:
   Pt

3) Formation of the bright field images is possible by allowing the ..., through the objective lens in TEM. 1 point
   - Transmitted beam
   - Diffused beam
   - Both
   - None of the above
   Accepted Answers:
   Transmitted beam

4) Which among the following is a beam sensitive material? 1 point
   - Metals
   - Compounds
   - Polyners
   - Graphite
   Accepted Answers:
   Polyners

5) To record the microstructural images, both objective and SAD apertures are required 1 point
   - True
   - False
   Accepted Answers:
   True

6) Which of the following method is suitable for ceramic sample preparation? 1 point
   - Jet polishing
   - Ion milling
   - Unanswerable
   Accepted Answers:
   Ion milling

7) Which of the following methods is preferred to prepare an electron transparent region in a Ti alloy disc having 10mm diameter and 96µm thickness? 1 point
   - Ion milling
   - Twin jet electro polishing
   - Unanswerable
   Accepted Answers:
   Twin jet electro polishing

8) Method not be used for the preparation of polymeric or soft TEM samples? 1 point
   - Jet polishing
   - Ion etching
   - Unanswerable
   Accepted Answers:
   Ion etching

9) Which of the following is the correct pathway of electrons in the TEM? 1 point
   - Anode $\rightarrow$ electromagnetic lens system $\rightarrow$ sample $\rightarrow$ fluorescent screen
   - Cathode $\rightarrow$ electromagnetic lens system $\rightarrow$ sample $\rightarrow$ fluorescent screen
   - Unanswerable
   Accepted Answers:
   Anode $\rightarrow$ electromagnetic lens system $\rightarrow$ sample $\rightarrow$ fluorescent screen

10) When using ultrasonic trans for sectioning, what is the purpose of using glass knife? 1 point
    - To trim the cutting edge of sample blade as to make it flat
    - To section the specimen into thin slices
    - To hold the sample base
    - It allows us to monitor the pressure of sectioning
    Accepted Answers:
    To trim the cutting edge of sample blade as to make it flat