Assignment 9

The due date for submitting this assignment has passed.

As per our records you have not submitted this assignment.

Due on 2021-03-27, 23:59 IST.

1) Arrange the following polymer configurations in the increasing order of flaxibility or plasticity:
   - Linear < cross-linked < branched < reticulated
   - Linear < branched < cross-linked < reticulated
   - Reticulated < branched < cross-linked < linear
   - Reticulated < cross-linked < branched < linear

   Score: 1 point
   Accepted Answers:
   Reticulated < cross-linked < branched < linear

2) Heat treatment by annealing increases the crystallinity of the polymer
   - True
   - False

   Score: 1 point
   No, the answer is incorrect.
   Accepted Answers:

3) Choose the representative stress-strain behaviour of the phosphazene-triazine matrix network polymers from the figure given below assuming high strain rate while testing at 1°C.

   Score: 1 point
   Accepted Answers:

4) Which of the following tire is likely to occur when automobile tires are continuously heated?
   - They start melting and become flexible
   - They remain rigid
   - They burn after a particular temperature
   - They soften after a particular temperature

   Score: 1 point
   No, the answer is incorrect.
   Accepted Answers:

5) Consider the following statements and choose the correct option:
   - A: Phrenoel is strong in all directions
   - B: The laminates with a preferential high strength direction are kept in orthogonally directions
   - C: Phrenoel has an endothermic layer containing many layers of lightweight materials
   - D: and C are correct. But B is incorrect
   - A, B and C are correct and B is the proper reasoning for A
   - A, B, C and D are correct and B is the proper reasoning for A
   - C is incorrect. A and B are correct and B is not the proper reasoning for A
   - A and B are correct but B is not the proper reasoning for A
   - C is correct. A and B are incorrect.

   Score: 2 points
   No, the answer is incorrect.
   Accepted Answers:

6) Calculate the critical aspect ratio of the fibre of radius 0.05 μm, for the effective strengthening applications when the fibre strength in tension is 800 MPa and shear strength of the fibre matrix interface is 50 MPa.

   Score: 2 points
   Accepted Answers:

7) Calculate the upper limit for the composite modulus
   - 250 GPa
   - 150 GPa
   - 100 GPa
   - 50 GPa

   Score: 1 point
   No, the answer is incorrect.
   Accepted Answers:

8) Calculate the lower limit for the composite modulus
   - 120 GPa
   - 100 GPa
   - 70 GPa
   - 50 GPa

   Score: 1 point
   No, the answer is incorrect.
   Accepted Answers: