Assignment 10

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

1. In a typical Portland cement concrete, the magnitude of shrinkage levels are in the order:  
   - Drying > Autogenous > Thermal (Contraction) > Drying + Autogenous > Thermal (contraction)  
   - Autogenous > Drying > Thermal (contraction) > Drying + Autogenous  
   - No, the answer is incorrect.  
   - Assumed Answers: Drying > Autogenous > Thermal (contraction) > Carbonation

   a. With the increase in w/c and keeping all other parameters fixed, the drying shrinkage _____.
      - Decreases
      - Increases
      - Remains unaffected
      - Cannot be determined
   - No, the answer is incorrect.  
   - Assumed Answers: Increases

   b. Volumetric strain is equal to ______ times the linear strain.

   2. If the stress is removed, the specimen shows an instantaneous recovery strain ___ the elastic strain on loading.
      - Higher than
      - Lower than
      - Equal to
      - Much greater than
   - No, the answer is incorrect.  
   - Assumed Answers: Equal to

   3. Rate of creep ___, as the age of application of load increases.
      - Decreases
      - Increases
      - Stays the same
      - Decreases and then increases
   - No, the answer is incorrect.  
   - Assumed Answers: Decreases

   4. The rate of creep increases with temperature of the exposure conditions.
      - True
      - False
   - No, the answer is incorrect.  
   - Assumed Answers: True

   5. How does combination of steel and polypropylene fibres help in reducing plastic shrinkage cracks in concrete?
      - High tensile strength of fibres prevents crack formation
      - ITZ becomes more dense and stronger withfibres
      - Increased slenderness with fibre presence cracks
      - Larger number of fibres bridges cracks
   - No, the answer is incorrect.  
   - Assumed Answers: Larger number of fibres bridges cracks

   6. Which among the following is not a factor affecting drying shrinkage?
      - Freshness of concrete
      - Size of the specimen
      - Workability of the concrete
      - Quantity of aggregates
   - No, the answer is incorrect.  
   - Assumed Answers: Workability of the concrete

   7. Match the following:
      - A. - Plastic settlement cracks  
      - B. - Thermal shrinkage cracks  
      - C. - Drying shrinkage cracks  
      - D. - Hydration cracks  
      - E. - Macro cracking pattern
      - 1. - Mass concrete  
      - 2. - Crack width comparator measurements  
      - 3. - Decrating new concretes  
      - 4. - Mage cracking pattern
   - No, the answer is incorrect.  
   - Assumed Answers: A. - 1, B. - 2, C. - 3, D. - 4  
   - A. - 1, B. - 2, C. - 3, D. - 4

   8. Shrinkage that occurs due to withdrawal of water from the capillary and gel pores for the process of hydration of cemented cement is termed as ________ shrinkage.
   - No, the answer is incorrect.  
   - Assumed Answers: Type I, Type II, Autogenous shrinkage

   9. Type I, Type II, Autogenous shrinkage