Assignment 12

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

1) Pick the CORRECT sources for different sizes of plastics in the environment
   - Macromastics, Masomastics, Microplastics, Nanoplastics - primary and secondary
   - Macromastics - primary, Mesoplastics, Microplastics, Nanoplastics - primary and secondary
   - Macromastics - secondary, Mesoplastics, Microplastics, Nanoplastics - primary
   - Microplastics, Mesoplastics, Microplastics, Nanoplastics - secondary

   No, the answer is incorrect.
   Score: 0
   Accepted Answers:
   Macromastics - primary, Mesoplastics, Microplastics, Nanoplastics - primary and secondary

2) State True or False
   The quantity of microplastics floating on the ocean surface is much larger than the quantity of microplastics in ocean beds.

   - True
   - False

   No, the answer is incorrect.
   Score: 0
   Accepted Answers:
   False

3) For a biodegradable polymer:
   - Very low and very high molar mass is easy to biodegradation
   - Molar mass does not influence biodegradation
   - The higher the molar mass, more difficult is biodegradation
   - The lower the molar mass, more difficult is biodegradation

   No, the answer is incorrect.
   Score: 0
   Accepted Answers:
   the higher the molar mass, more difficult is biodegradation

4) Polyesters can be biodegradable because of
   - Ester groups which can form free radicals
   - Ester groups which can get carbonized
   - Ester groups which can get oxidized
   - Ester groups which can get hydrolyzed

   No, the answer is incorrect.
   Score: 0
   Accepted Answers:
   ester groups which can get hydrolyzed

5) Pick the correct reaction for aerobic biodegradation:
   - \( CH_4 + O_2 \rightarrow CO_2 + H_2O + CH_3 \)
   - \( CH_2 + O_2 \rightarrow CO_2 \)
   - \( CH_2 + O_2 + CH + CO \rightarrow CO_2 \)
   - \( CH_2 + O_2 + CH + CO \rightarrow CO_3 \)

   No, the answer is incorrect.
   Score: 0
   Accepted Answers:
   \( CH_2 + O_2 \rightarrow CO_2 + CH + CO \)

6) In addition to carbon dioxide, anaerobic biodegradation of polymers leads to the evolution of the following in large quantities
   - Ethylene
   - Ethane
   - Methane
   - Propylene

   No, the answer is incorrect.
   Score: 0
   Accepted Answers:
   Methane

7) State True or False
   One advantage of starch as a biodegradable polymer is that it never requires plasticizer for polymer processing.

   - True
   - False

   No, the answer is incorrect.
   Score: 0
   Accepted Answers:
   False

8) Copolymers of aliphatic and aromatic polyesters are good candidates for biodegradable polymers due to the location of ester groups in
   - Aromatic part of polymer which is hydrophilic, and aliphatic part of polymer which is hydrophobic
   - Aliphatic part of polymer which has no ester groups, and aromatic part of polymer which has ester groups
   - Aliphatic part of polymer which is thermally stable, and aromatic part of polymer which is flexible
   - Aromatic part of polymer which is hydrophobic, and aliphatic part of polymer which is hydrophilic

   No, the answer is incorrect.
   Score: 0
   Accepted Answers:
   Aromatic part of polymer which is hydrophobic, and aliphatic part of polymer which is hydrophilic