

CLASS XII
CHAPTER - POLYMERS

ONE MARK QUESTIONS

1. How does vulcanization change the property of rubber?
2. Explain the term 'homopolymerisation' giving an example. (2012)

TWO MARK QUESTIONS

1. What is PHBV? Give its importance.
2. Explain the term copolymerization and give two examples.
3. Give chemical equations for the preparation of
(a) PHBV (b) Melamine
4. Differentiate between molecular structure and behaviours of thermoplastic and thermosetting polymers. Give one example of each type. (2012)

THREE MARK QUESTIONS

1. Arrange the following polymers in the increasing order of their intermolecular forces.
Also classify them as addition and condensation polymers.
 - a) Nylon 6, 6 ; Buna -S , rubber , Polystyrene.
 - b) Nylon - 6, neoprene and PVC
 - c) Polystyrene, terylene, natural rubber (2013)
2. Explain the classification of polymers on the basis of structure?
3. Write the free radical mechanism for the polymerisation of ethene.
4. Give equations for the synthesis of
 - a) Terylene
 - b) Neoprene
 - c) Teflon (2011)
5. Write the (i) and (ii) use of each of the following polymers:(2010)
 - a) PVC
 - b) Urea – formaldehyde resin
 - c) Bakelite

FIVE MARK QUESTIONS

1. Differentiate between:
 - a) Thermosetting and thermoplastics.
 - b) Addition and condensation polymers
 - c) LDP and HDP
 - d) Nylon-6 and Nylon-6,6
 - e) Homo-polymer and co-polymer

VALUE BASED QUESTION

1. A large number of polymers are resistant to the environmental degradation and therefore they are responsible for the pollution due to their accumulation in the environment. Polythene which we use daily as carry bags is also one such polymer.
 - a) How can you as a responsible individual avoid the environmental degradation due to these polymers especially polythene?
 - b) What is biodegradable polymer? Give an example of biodegradable polymer.
 - c) Write a short note on aliphatic polyesters.
 - d) Write the values associated with the paragraph and biodegradable polymers.
