

CHEMISTRY

BOOKS - A N EXCEL PUBLICATION

POLYMERS

Question Bank

1. What are polymers?



2. How are polymers classified on the basis of structures?



Watch Video Solution

3. Write the names of the monomers of the following polymers

$$\begin{bmatrix}
H & H & O & O \\
& & & \parallel & \parallel \\
N & -(CH_2)_6 - N - C - (CH_2)_4 - C
\end{bmatrix}_{n}$$



4. Write the names of the monomers of the following polymers

$$\begin{bmatrix}
H & H & O & O \\
& & & \parallel & \parallel \\
N & -(CH_2)_6 - N - C - (CH_2)_4 - C
\end{bmatrix}$$



Watch Video Solution

5. Write the names of the monomers of the following polymers



6. Classify the following as addition and condensation polymers:

Terylene, Polyvinyl chloride, polythene



Watch Video Solution

7. Explain the difference between Buna-N and Buna-S



8. Arrange the following polymers in the increasing order of their intermolecular forces. Buna-S, Polythene, Nylon 6,6



Watch Video Solution

9. Arrange the following polymers in the increasing order of their intermolecular forces Neoprene, Polyvinyl chloride, Nylon 6



10. Classify the following as addition and condensation polymers:

Terylene, Polyvinyl chloride, polythene



Watch Video Solution

11. How will you prepare Nylon 6,6?



12. Polymers are high molecular mass compounds having special properties so used for special purposes. Identify the following polymers X,Y and Z

X is a polymer resistant to heat and chemicals

. People use it to make non-sticky frying pans



Watch Video Solution

13. Polymers are high molecular mass compounds having special properties so used

for special purposes. Identify the following polymers X,Y and Z

Y is a polymer formed from ethylene glycol and terephthalic acid and used for making heart valves



Watch Video Solution

14. Polymers are high molecular mass compounds having special properties so used for special purposes. Identify the following polymers X,Y and Z

Z is a polymer used for making unbreakable crockery items.



Watch Video Solution

15. LDPE is a homopolymer, while nylon 6, 6 is a copolymer. Explain



Watch Video Solution

16. Classify the following into homopolymer or copolymer

Nylon 6, HDPE



Watch Video Solution

17. Polymers can be classified in many ways:

Distinguish between homopolymers and copolymers



Watch Video Solution

18. Polymers can be classified in many ways:

Give the name or formulae of the monomers

of the following Nylon 6,6



Watch Video Solution

19. Polymers can be classified in many ways:

Give the name or formulae of the monomers

of the following Dacron



Watch Video Solution

20. Rubber is a natural polymer obtained from the bark of rubber trees Name the monomer

of natural rubber



Watch Video Solution

21. Rubber is a natural polymer obtained from the bark of rubber trees vuclanisation improves elasticity of rubber. What is vulcanisation?



Watch Video Solution

22. Write two examples of synthetic rubber



23. PVC, bakelite and polythene are plastics.

Classify the above plastics into thermoplastics and thermosetting plastics.



24. PVC, bakelite and polythene are plastics

Name the monometer units of PVC and bakelite.

25. Write two examples of synthetic rubber



Watch Video Solution

26. Synthetic rubber is a vulcanisable rubber like polymer

Write the method of preparation of the above synthetic rubber



27. What are the monomers of Nylon 6 and Nylon 6,6



Watch Video Solution

28. Natural rubber obtained from rubber latex is soft and sticky

Suggest a method to improve the stiffness of rubber



29. Natural rubber obtained from rubber latex

is soft and sticky

Explain the above method



Watch Video Solution

30. Natural rubber obtained from rubber latex is soft and sticky

Classify the following into natural and

synthetic polymers: Nylon, starch, cellulose,

PVC



31. Write any two differences between step growth polymerisation and chain growth polymerisation.



Watch Video Solution

32. What are the monomers of the following? Neoprene



33. What are the monomers of the following? Nylon 6



Watch Video Solution

34. Name two thermoplastics



Watch Video Solution

35. Polymers can be classified in many ways:

Give the name or formulae of the monomers

of the following Dacron



Watch Video Solution

36. Polymers are macro molecules formed by union of monomers.

Name natural polymers and synthetic polymer



Watch Video Solution

37. Polymers are macro molecules formed by union of monomers. Distinguish between

thermoplastic and thermosetting polymers with example



Watch Video Solution

38. Polymers are classified into elastomers, fibres, thermoplastics and thermosetting plastics, depending upon the intermolecular forces. Fill in the vacant boxes given below:

Type of Polymer	Polymer	, Monomer
Thermosetting plastic	- (i)	Phenol and Formaldehyde
(ii)	Natural Rubber	(iii)
(iv)	(v)	Caprolactam
(vi)	Polystyrene	·Styrene



39. Polymers can be classified based on molecular forces

Classify the following polymers into elastomers and fibres:

Rubber, Nylon 6, 6, Buna-S, Terylene



Watch Video Solution

40. What do you mean by thermosetting polymers? Give one example.



41. Polymers are different types

Identify the thermoplastic polymers from the following:

A. Bakelite

B. Nylon-6,6

C. Neoprene

D. PVC

Answer: D

42. What are biodegradable polymers? Write an example.



Watch Video Solution

43. Which of the following is not applicable to

Nylon 6, 6?

A. Synthetic polymer

B. Fibre

- C. Addition polymer
- D. Condensation polymer

Answer: C



Watch Video Solution

44. Polymers are macro molecules formed by union of monomers. Distinguish between thermoplastic and thermosetting polymers with example



45. Polymers are macro molecules formed by union of monomers. Distinguish between thermoplastic and thermosetting polymers with example



Watch Video Solution

46. Write the names of the monomers of the following polymers

47. Name the monomers in the following two polymers Buna-N



Watch Video Solution

48. The following are the names of certain polymers Neoprene, Nylon, Polystyrene, silk, PVC, Bakelite.

classify the above polymers based on the intermolecular forces



Watch Video Solution

49. The following are the names of certain polymers Neoprene, Nylon, Polystyrene, silk, PVC, Bakelite.

Polystrene and bakelite differ on the action of heat. Explain



50. The characterstics features of certain polymers are summarised below: Polymer A: Flexible, inert to solvents, used for making non-stick utensils.

Polymer B- Hard, high melting used for making synthetic wool, carpets etc.

Polymer C: Strong, Fibrous, used for making tyre cords, ropes etc. Name the polymers A, B, and C



51. The characterstics features of certain polymers are summarised below: Polymer A: Flexible, inert to solvents, used for making non-stick utensils.

Polymer B- Hard, high melting used for making synthetic wool, carpets etc.

Polymer C: Strong, Fibrous, used for making tyre cords, ropes etc. Give the monomers of A, B and C



52. The characteristics features of certain polymers are summarised below: Polymer A:

Flexible, inert to solvents, used for making non-stick utensils.

Polymer B- Hard, high melting used for making synthetic wool, carpets etc.

Polymer C: Strong, Fibrous, used for making tyre cords, ropes etc. Identify the addition polymer (s) among A, B and C



53. One of the production units of FACT produces caprolactam from cyclohexane Represent the polymerisation of caprolactam monomer and name the product



Watch Video Solution

54. One of the production units of FACT produces caprolactam from cyclohexane Mention two uses of the product formed?



55. Kerala state is known for its production of natural rubber. Rubber has certain remarkable properties which make it valuable for a variety of uses

What is natral rubber chemically?



Watch Video Solution

56. Kerala state is known for its production of natural rubber. Rubber has certain remarkable properties which make it valuable for a variety

of uses

Give the structure of the monomer of natural rubber and give its IUPAC name



Watch Video Solution

57. Kerala state is known for its production of natural rubber. Rubber has certain remarkable properties which make it valuable for a variety of uses

Write the name of a synthetic rubber which

can be considered as a homopolymer. Name the monomer from which it is prepared



Watch Video Solution

58. To a question, a student answered that bakelite is the thermosetting polymer. IS he answer correct?



59. To a question, a student answered that bakelite is the thermosetting polymer What is a thermosetting polymer?



Watch Video Solution

60. To a question, a student answered that bakelite is the thermosetting polymer What is the type of intermolecular forces present in nylon 6,6



61. Polymers are high molecular mass compounds having special properties so used for special purposes. Identify the following polymers X,Y and Z

Y is a polymer formed from ethylene glycol and terephthalic acid and used for making heart valves



62. The characterstics features of certain polymers are summarised below: Polymer A: Flexible, inert to solvents, used for making non-stick utensils.

Polymer B- Hard, high melting used for making synthetic wool, carpets etc.

Polymer C: Strong, Fibrous, used for making tyre cords, ropes etc. Identify the addition polymer (s) among A, B and C



63. Polymers are high molecular mass compounds having special properties so used for special purposes. Identify the following polymers X,Y and Z

X is a polymer resistant to heat and chemicals

. People use it to make non-sticky frying pans



64. With the increases in use of polymers, the problem of Plastic waste has become a threat to our environment. This problem can be

solved to some extent by introducing biodegradable polymers

What are biodegradable polymers?



Watch Video Solution

65. Name a polymer used for making medicinal capsules



66. With the increases in use of polymers, the problem of Plastic waste has become a threat to our environment. This problem can be solved to some extent by introducing biodegradable polymers

Name the monomers used for the preparation of the above polymer.



67. Polymers are macro molecules formed by union of monomers. Distinguish between thermoplastic and thermosetting polymers with example



Watch Video Solution

68. What are the catalyst used in the preparation of LDP and HDP from ethene

