

India's Number 1 Education App

CHEMISTRY

BOOKS - BODY BOOKS PUBLICATION

POLYMERS



1. Soft drinks and baby feeding bottles are

generally made up of

2. Nylon is a_____.

A. Polyster

B. Polyether

C. Polyamaid

D. Polyurea

Answer:

3. Which has an ester linkage?

A. Terylene

B. Rubber

C. PVC

D. Bakelite

Answer:

4. Rearrangement of an oxime to an amide in

the presence of strong acid Is called_____.

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5. Answer the following : Name the monomer of PVC.

A. Isoperene

B. Vinyl Chloride

C. Ethene

D. None of these

Answer:

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6. The monomer of natural rubber is

A. Buna-S

B. Styrene

C. Neoprene

D. 2-methyl-1,3-butadiene



8. Bakelite is

A. Urea-formadehyde resin

B. Polycarbonate

C. Phenol-formadehyde resin

D. None of these

Answer:

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9. The acid used in the manufacture of plastic is

A. Ethanoic acid

B. Methanoic acid

C. Butanoic acid

D. None of these

Answer:



10. The Monomer of polystyrene is_____.

11. Observe the relationship between the first two terms and fill in the blanks Buna-S : 1,3-Butadiene styrene ,Bunna - N :_____.



12. "Novalac Is a thermoplastic" State whether

this statement is true or false.



13. The common acid used in the manufacture

of rayon and plastic Is_____.

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14. Choose the correctly matched pair

A. Polyvinyl chloride : Vinyl chloride

B. Neoprene: Styrene

C. Dacron: Propene

Answer:



15. Observe the relationship between the first two pairs and fill in the blanks Addition polymer : Polyvinylchloride, Condensation polymer :_____.

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16. Natural rubber is a polymer of_____.



18. Nylon Is _____.

A. Polyster

B. Polyether

C. Polyamide

D. Polyurea

Answer:



19. _____is currently used as a tyre cord.



20. Name the common acid used In the manufacture of rayon and plastic.Watch Video Solution

21. Phenol Is heated with excess of formaldehyde in presence of NaOH to form a cross linked polymer. Name the polymer.

22. Phenol Is heated with excess of formaldehyde in presence of NaOH to form across linked polymer. Give two usesof thepolymer formed.

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23. Natural rubber is an elastomer. Briefly

explain the properties of elastomers.

24. 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

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25. How will you make natural rubber hard? Explain the chemistry behind it.

26. Name the monomers of Nylon-6,6.



28. Three polymers are given below silk, rubber,PVC. Categorise each under separate heading

based on intermolecular forces.

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20 Cive the name and struct	stura of the
29. Give the name and struct monomer unit in Nylon-6.	cture of the
Watch Video Solution	

30. Write the names and structures of monomers present in the following polymers. Neoprene



31. Write the names and structures of monomers present in the following polymers. Teflon

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- **32.** A polymer has the structure
- $\left[-CH2-CH-(C6H5)ight]_n.$

Name the monomer of above polymer.

33. Which among the following are (PVC, Nylon,

Bakelite, Terylene, Teflon). A polyester

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34. Which among the following are (PVC, Nylon,

Bakelite, Terylene, Teflon). Thermosetting

35. Write a note on biodegradable polymers.



36. Name and give the structure of monomer

units of natural rubber.



37. Name two commercially Important synthetic

polymers. Name their monomer unit.





38. Polyesters and polyacrylates are addition

polymers. Do you agree with this statement?



39. Polyesters and polyacryiates are addition

polymers.Justify Your answer.

40. Here Is a list of substances: Terylene,

styrene, cellulose, ethene. From the list, select A

naturally occuring polymer.

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41. Here Is a list of substances: Terylene, styrene, cellulose, ethane. From the list, select A substance which is not a polymer, but can readily be converted into a polymer.



42. Here Is a list of substances: Terylene, styrene, cellulose, ethane. From the list, select. A polymer used for making fabrics.

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43. Enlist the important uses of the following

polymers: Nylon-66, Buna-S, Bakelite.



44. How do elastomers differ from fibres ? Give

an example for each.

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45. Buna-S is a substitute for natural rubber. Name another synthetic rubber and give its

use.

46. Buna-S is a substitute for natural rubber. Suggest a method to improve stiff ness of rubber. Indicate the Chemistry involved in the process.

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47. Polymers that are degraded by microorganism within a suitable period of time is called biodegradable polymers. Give examples for biodegradable polymers.



48. How Is Novolac different from Bakellte?

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49. A polymide formed from ethylene glycol and a dlcarboxylic acid, which is used to make fabrics as a blend with cotton. Identify the above polyamide.



50. A polyamide formed from ethylene glycol and a dicarboxylic acid, which is used to make fabrics as a blend with cotton. Find out the name of dicarboxylic used here.



51. A polymide formed from ethylene glycol and a dlcarboxylic acid, which is used to make fabrics as a blend with cotton. Give the chemical equation showing the synthesis of the polyamide.



52. Addition polymerisation is used for the production of important polymer. Give one example for the addition polymer. Name its monomer unit.

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53. PVC and Bakelite are differentiated based

on the action of heat. Justify the statement.



54. Some polymers are given below: PVC. Name the monomer present in each polymer and Identify the type of polymerisation involved in it.



55. Some polymers are given below : Teflon .Namethe monomer presentineach polymer

and Identify the type of polymerisation

involved in it.



56. Some polymers are given below: Nylon-66 .Name the monomer present in each polymer and Identify the type of polymerisation involved in it.

57. How are melamine formaldehyde resin

prepared? Give one use.

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58. LDPE and HDPE are names of polythene. How are they prepared? Differentiate their properties.

59. Nylon 2-nylon 6 is a polymer having

environmental significance. Why?

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60. Neoprene is a homopolymer while Buna-S

Is a co-polymer. Justify.

61. Polymers can be classified in many ways:

Distinguish between homopolymers and

copolymers



62. Polymers can be classified in many ways:

Give the name or formulae of the monomers of

the following Nylon 6,6

63. Polymers can be classified in many ways:

Give the name or formulae of the monomers of

the following Dacron



64. PVC, bakelite and polythene are plastics.

Classify the above plastics into thermoplastics

and thermosetting plastics.



65. PVC, bakelite and polythene are plastics

Name the monometer units of PVC and bakelite



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66. Name two thermoplastics



67. Nylon 6, 6 and Dacron are two synthetic

fibres. Suggest the monomers of each.

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68. 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

Match Mideo Colution



69. Is $(NH - CHR - CO)_n$ A homopolymer

or copolymer?

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70. Distinguish between the terms homopolymer and copolymer and give an example of each.

71. How does the presence of double bonds in rubber molecules influence their structure and reactivity?



72. How is dacron obtained from ethylene

glycol and terephthalic acid?

73. Explain the term copolymerisation and give

two examples.



74. Explain the terms polymer and monomer.



75. The monomer of natural rubber is

76. Vulcanisation is carried out to improve the physical properties of rubber. Explain the process of vulcanisation of rubber.

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77. Classify the following into addition and

condensation polymers: PVC



80. Classify the following into addition and condensation polymers: Terylene



83. What Is the cross linked polymer obtained

by the polymerisation of phenol and

formaldehyde?

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84. Match the following

Match the following:

Vitamin A Starch Aldohexose Enzyme Glucose Zymase Night blindness Amylose Fructose

10

85. Which of the following is not applicable to Nylon 6, 6 ?

A. Synthetic polymer

B. Fibre

C. Addition polymer

D. Condensation polymer.

Answer:

86. Define thermoplastics and thermosetting

polymers with two examples of each



87. Polymers can be classified based on molecular forces. Classify the following polymers Into elastomers and fibres: Rubber

88. Polymers can be classified based on molecular forces. Classify the following polymers Into elastomers and fibres: Nylon 6 6

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89. Polymers can be classified based on molecular forces. Classify the following polymers Into elastomers and fibres: Buna-S

90. Polymers can be classified based on molecular forces. Classify the following polymers Into elastomers and fibres: Terylene **Watch Video Solution**

91. What do you mean by thermosetting

polymers ? Give one example.

92. Polymers are macro molecules formed by

union of monomers.

Name natural polymers and synthetic polymer

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

94. The process by which monomers are converted to polymer Is called polymerization. Write the names of monomers of the following polymers.

$$ig(NH-ig(CH_2ig)_6-NH-CO-ig(CH_2ig)_4-COig)_n$$

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95. The process by which monomers are converted to polymer Is called polymerization.

Write the names of monomers of the following

polymers. $(CO - (CH_2)_5 - NH)_n$.



96. The process by which monomers are converted to polymer Is called polymerization. Explain the terms co-polymerisation.



97. Synthetic rubber Is a vulcanisable rubber like polymer. Write one example for synthetic rubber.



98. Synthetic rubber is a vulcanisable rubber like polymer

Write the method of preparation of the above

synthetic rubber

99. What are the monomers of Nylon 6 and

Nylon 6,6

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100. What are the monomers of the following?

Neoprene



101. What are the monomers of the following?

Nylon 6

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

103. PVC, bakelite and polythene are plastics.

Classify the above plastics into thermoplastics

and thermosetting plastics.



104. PVC, bakelite and polythene are plastics

Name the monometer units of PVC and bakelite



105. Nylon -6 is condensation polymer, Name

the Monomer of Nylon -6.



106. Terelyne: is obtained by the condensation

polymerisation of_____.

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107. Select the odd one out. Justify your selection. PVC,PTFE,Nylon-6,PAN.



108. Select the odd one out. Justify your

selection.Natural

rubber,Celluslose,Polyster,Starch.

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109. Classify the following into natural and

synthetic polymers : Nylon

110. Classify the following into natural and synthetic polymers : Starch

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111. Classify the following into natural and synthetic polymers : Cellulose

112. Classify the following into natural and

synthetic polymers : PVC

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113. Natural rubber obtained from rubber latex

is soft and sticky

Suggest a method to improve the stiffness of

rubber

114. Natural rubber obtained from rubber latex

is soft and sticky

Explain the above method

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115. 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



116. 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

117. Polymers are high molecular masscompounds having special properties so usedfor special purposes. Identify the followingpolymers X,Y and ZZ is a polymer used for making unbreakable

crockery items.

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118. Polymers are different types

Identify the thermoplastic polymers from the

following:

A. Bakelite

B. Nylon-6,6

C. Neoprene

D. PVC

Answer:



119. What are biodegradable polymers? Write

an example.

