CHEMISTRY

BOOKS - DISHA CHEMISTRY (HINGLISH)

POLYMERS

Mcqs

1. Which of the following catalyst is used in preparation of high density polythene ?

A. Peroxide catalyst

B. Ziegler - Natta catalyst

C. Wilkinson's catalyst

D. Pd - catalyst

Answer: B

View Text Solution

2. Among cellulose, polyvinyl chloride, nylon and natural rubber, the polymer in which the intermolecular force of attraction is weakest is

A. nylon

B. polyvinyl chloride

C. cellulose

D. natural Rubber

Answer: D

View Text Solution

3. Polyvinylalcohol can be prepared by

A. polymerization of vinyl alcohol

B. alkaline hydrolysis of polyvinyl acetate

C. polymerization of acetylene

D. reaction of acetylene with H_2SO_4 in presence of $HgSO_4$

Answer: B

View Text Solution

4. Which of the following polymer is an example of fibre ?

A. Silk

B. Dacron

C. Nylon-6, 6

D. All of these

Answer: D

View Text Solution

5. Which compound/set of compounds is used in the manufacture of nylon 6?

A. 

B. $HOOC(CH_2)_4COOH + NH_2(CH_2)_6NH_2$

C. $CH_2 = CH - \overset{CH_3}{\overset{|}{C}} = CH_2$

D. 

Answer: D

View Text Solution

6. The polymer containing strong intermolecular forces e.g. hydrogen bonding, is

A. teflon

B. nylon 6,6

C. polystyrene

D. natural Rubber

Answer: D

View Text Solution

7. Which one of the following polymers is prepared by condensation polymerisation?

A. Teflon

B. Natural rubber

C. Styrene

D. Nylon-6, 6

Answer: D

View Text Solution

8. Three dimensional molecules with cross links are formed in the case of a

A. thermoplastic

B. thermosetting plastic

C. both (a) and (b)

D. none of the above

Answer: B

View Text Solution

9. In elastomer, intermolecular forces are

A. strong

B. weak

C. nil

D. none of these

Answer: B

View Text Solution

10. Nylon 6, 6 is a polyamide obtained by the reaction of

A. $COOH(CH_2)_4COOH + NH_2C_6H_4NH_2$

B. $COOH(CH_2)_4COOH + NH_2(CH_2)_6NH_2$

C. $COOH(CH_2)_6COOH + NH_2(CH_2)_4NH_2$

D. $COOHC_6H_4COOH - (p) + NH_2(CH_2)_6NH_2$

Answer: B

View Text Solution

11. Buna-N synthetic rubber is a copolymer of:

A. $H_2C = CH - CH = CH_2$ and $H_5C_6 - CH = CH_2$

B. $H_2C = CH - CN$ and $H_2C = CH - CH = CH_2$

C. $H_2C = CH - CN$ and $H_2C = CH - \underset{\underset{CH_3}{|}}{C} = CH_2$

D. $H_2C = CH - \overset{\overset{Cl}{|}}{C} = CH_2$ and

$H_2C = CH - CH = CH_2$

Answer: B

View Text Solution

12. Interparticle forces present in nylon-6, 6 are

A. van der Waal 's

B. hydrogen bonding

C. dipole-dipole interactions

D. None of the above

Answer: B

View Text Solution

13. Monomer of $\left[- \overset{\overset{CH_3}{|}}{\underset{\underset{CH_3}{|}}{C}} - CH_2 - \right]$ is

A. 2-Methylpropene

B. Styrene

C. Propylene

D. Ethene

Answer: A

View Text Solution

14. Which of the following is not correctly matched?

A. Neoprene , $\left[-CH_2 - \underset{Cl}{\overset{|}{C}} = CH - CH_2 - \right]_n$

B. Nylon 6,6

$$\left[-NH-(CH_2)_6-NH-CO-(CH_2)_4-\overset{\overset{O}{||}}{C}- \; - \right]_n$$

C. 

D. PMMA : $\left[- \; -CH_2 - \underset{COOCH_3}{\overset{CH_3}{\overset{|}{C}}} \; - \; - \right]$

Answer: B

View Text Solution

15. Which of the following compound is used for preparation of melamine formaldehyde polymer ?

A. 

B. 

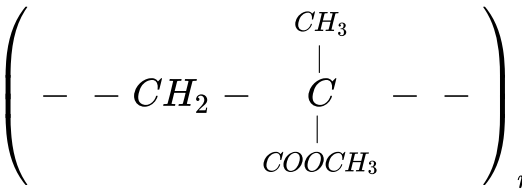
C. 

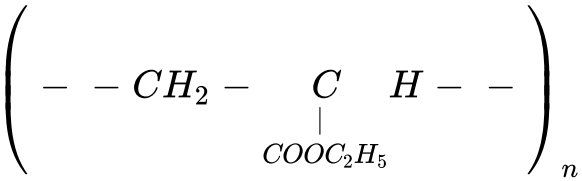
D. 

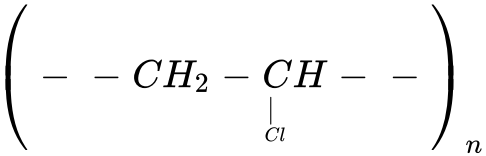
Answer: C

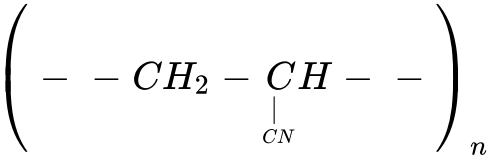
View Text Solution

16. Acrilan is a hard, horny and a high melting material. Which of the following represents its structure?

A. 

B. 

C. 

D. 

Answer: D

View Text Solution

17. Bakelite is obtained from phenol by reacting with

A. $(CH_2OH)_2$

B. CH_3CHO

C. CH_2COCH_3

D. HCHO

Answer: D

View Text Solution

18. Polymer fonnation from monomers starts by

A. condensation reaction between monomers

B. coordinate reaction between monomers

C. conversion of monomer to monomer ions by protons

D. hydrolysis of monomers

Answer: A

View Text Solution

19. Melamine plastic crockery is a codensation polymer of

A. HCHO and melamine

B. HCHO and ethylene

C. melamine and ethylene

D. None of these

Answer: A

View Text Solution

20. Which of the following is a polyamide?

A. Bakelite

B. Terylene

C. Nylon-6, 6

D. Tetlon

Answer: C

View Text Solution

21. Terylene is a condensation polymer of ethylene glycol and

A. benzoic acid

B. phthalic acid

C. salicyclic acid

D. terephthalic acid

Answer: D

View Text Solution

22. The monomer of the polymer,

A. 

B. $CH_3CH = CHCH_3$

C. $CH_3CH = CH_2$

D. $(CH_3)_2C = C(CH_3)_2$

Answer: A

View Text Solution

23. Generally, molecular mass of a polymer is over

A. 100

B. 500

C. 1000

D. 10000

Answer: D

View Text Solution

24. Plexiglas (PMMA) is a polymer of

A. acrylic acid

B. methyl acrylate

C. methyl methacrylate

D. None of these

Answer: C

View Text Solution

25. Which one of the following is not a condensation polymer ?

A. Melamine

B. Glyptal

C. Dacron

D. Neoprene

Answer: D

View Text Solution

26. Dacron is obtained by the condensation polymerisation of:

A. Dimethyl terephthalate and ethylene glycol

B. Terephthalic acid and formaldehyde

C. Phenol and phthalic acid

D. Phenol and formaldehyde

Answer: A

View Text Solution

27. Which of the following is not a copolymer?

A. Buna-S

B. Baketite

C. Neoprene

D. Dacron

Answer: C

View Text Solution

28. Ziegler-Natta catalyst is

A. $K[PtCl_3(C_2H_4)]$

B. $(Ph_3P)_3RhCl$

C. $Al_2(C_2H_5)_6 + TiCl_4$

D. $Fe(C_5H_5)_2$

Answer: C

View Text Solution

29. Dacron is a -

A. crease resistant

B. polyamide

C. addition polymer

D. polymer of ethylene glycol and phthalic acid

Answer: A

View Text Solution

View Text Solution

30. The turbidity of a polymer solution measures

A. the light scattered by solution

B. the light absorbed by a solution

C. the light transmitted by a solution

D. None of these

Answer: A

View Text Solution

31. Which of the following polymers do not involve cross linkages?

A. Melmac

B. Bakelite

C. Polythene

D. Vulcanised rubber

Answer: C

View Text Solution

32. Which of the following statements are correct?

(i) Buna-N being resistant to the action of petrol, lubricating oil and organic solvents is used in making oil seals.

(ii) Biodegradable polymers are manufactured because of low chemical resistance, strength and durability of conventional polymers

(iii) PHBV is a copolymer used in the manufacture of orthopaedic devices

(iv)Nylon 2-nylon 6 is a biodegradable polymer.

A. (i), (ii) and (iii)

B. (ii), (iii) and (iv)

C. (i), (iii) and (iv)

D. (i) and (iv)

Answer: C

View Text Solution

33. Arrange the following in increasing order of their melting point.

(1) Nylon 2,2, (2)Nylon 2,4, (3)Nylon2,6, (4)Nylon 2,10

A. 1,2,3,4

B. 3,4,2,1

C. 2,1,3,4

D. 4,3,2,1

Answer: D

View Text Solution

34. A copolymer of isobutylene and isoprene is called:

A. butyl rubber

B. buna-S

C. buna-N

D. thiokol

Answer: A

View Text Solution

35. Ebonite is

A. natural rubber

B. synthetic rubber

C. highly vulcanized rubber

D. polypropene

Answer: C

View Text Solution

36. Orlon is a polymer of

A. styrene

B. tetrafluoroethylene

C. vinyl chloride

D. acrylonitrile

Answer: D

View Text Solution

37. Among the following polymers the strongest molecular forces are present in

A. elastomers

B. fibres

C. thermoplastics

D. thermosetting polymers

Answer: D

View Text Solution

38. Caprolactam polymcriscs to give

A. terylene

B. teflon

C. glyptal

D. Nylon-6

Answer: D

View Text Solution

39. Match Column-I (Monomer) with Column-II (Polymer) and select the correct answer using the codes given below the lists:

A. A-V , B-I , C-II , D-III

B. A-V , B-I , C-III , D-II

C. A-IV , B-III, C-I , D-II

D. A-IV , B-III , C-II , D-I

Answer: B

View Text Solution

40. Which of the following is novolac ?

A. 

B. 

C. 

D. 

Answer: D

View Text Solution

41. Match the polymers given in Column-I with their chemical names given in Column-II

A. A-III , B-I , C-II , D-V , E-IV

B. A-IV , B-II , C-V , D-III , E-I

C. A-V , B-IV , C-I , D-II , E-III

D. A-IV , B-V , C-III , D-II , E-I

Answer: A

View Text Solution

42. Two condensation polymers are made

(1) ethylene diamine + ethane-1, 2-dicarboxylic acid

(2) trimethylenediamine + ethane-1, 2- dicarboxylic acid if both polymers of same molecular weight are obtained then which of the following statements is/are correct ?

(i) Polymer (1) is found to melt at lower temperahrre.

(ii) Polymer (2) is found to melt at lower temperature.

(iii) H-bonding is major factor

A. (i), (ii) and (iii)

B. Only (ii)

C. (i) and (iii)

D. (ii) and (iii)

Answer: D

View Text Solution

43. Which of the following polymer is used for making phonograph records ?

A. Bakelite

B. Dacron

C. Teflon

D. PVC

Answer: A

View Text Solution

44. Which of the following statements is not true about low density polythene?

A. Tough

B. Hard

C. Poor conductor of electricity

D. Highly branched struture

Answer: C

View Text Solution

45. Polymer used in bullet proof glass is

A. PMMA

B. Lexan

C. Nomex

D. Kevlar

Answer: B

View Text Solution

1. O

A. Which of the following catalyst is used in preparation of high density polythene ?

B. Peroxide catalyst

C. Ziegler - Natta catalyst

D. Wilkinson's catalyst

Answer: Pd - catalyst

View Text Solution

Neet Che Dpp C 29 E 01 002

1. O

A. Among cellulose, polyvinyl chloride, nylon and natural rubber, the polymer in which the intermolecular force of attraction is weakest is

B. nylon

C. polyvinyl chloride

D. cellulose

Answer: natural Rubber

View Text Solution

Neet Che Dpp C 29 E 01 003

1. O

A. Polyvinylalcohol can be prepared by

B. polymerization of vinyl alcohol

C. alkaline hydrolysis of polyvinyl acetate

D. polymerization of acetylene

Answer: reaction of acetylene with H_2SO_4 in presence of $HgSO_4$

View Text Solution

Neet Che Dpp C 29 E 01 004

1. O

A. Which of the following polymer is an example of fibre ?

B. Silk

C. Dacron

D. Nylon-6, 6

Answer: All of these

View Text Solution

Neet Che Dpp C 29 E 01 005

1. O

A. Which compound/set of compounds is used in the manufacture of nylon 6?

B. 

C. $HOOC(CH_2)_4COOH + NH_2(CH_2)_6NH_2$

D. $CH_2 = CH - \overset{CH_3}{\underset{|}{C}} = CH_2$

Answer: $(\#\#N\exists T_C H E_D P P_C 29_E 01_{005} \_ O04\#\#)$

View Text Solution

Neet Che Dpp C 29 E 01 006

1. O

A. The polymer containing strong intermolecular forces e.g. hydrogen bonding, is

B. teflon

C. nylon 6,6

D. polystyrene

Answer: natural Rubber

View Text Solution

Neet Che Dpp C 29 E 01 007

1. O

A. Which one of the following polymers is prepared by condensation polymerisation?

B. Teflon

C. Natural rubber

D. Styrene

Answer: Nylon-6, 6

View Text Solution

Neet Che Dpp C 29 E 01 008

1. O

A. Three dimensional molecules with cross links are formed in the case of a

B. thermoplastic

C. thermosetting plastic

D. both (a) and (b)

Answer: none of the above

View Text Solution

Neet Che Dpp C 29 E 01 009

1. O

A. In elastomer, intermolecular forces are

B. strong

C. weak

D. nil

Answer: none of these

View Text Solution

Neet Che Dpp C 29 E 01 010

1. O

A. Nylon 6, 6 is a polyamide obtained by the reaction of

B. $COOH(CH_2)_4COOH + NH_2C_6H_4NH_2$

C. $COOH(CH_2)_4COOH + NH_2(CH_2)_6NH_2$

D. $COOH(CH_2)_6COOH + NH_2(CH_2)_4NH_2$

Answer: $COOHC_6H_4COOH - (p) + NH_2(CH_2)_6NH_2$

View Text Solution

Neet Che Dpp C 29 E 01 011

1. O

A. Buna-N synthetic rubber is a copolymer of:

B. $H_2C = CH - CH = CH_2$ and $H_5C_6 - CH = CH_2$

C. $H_2C = CH - CN$ and $H_2C = CH - CH = CH_2$

D. $H_2C = CH - CN$ and $H_2C = CH - \underset{\underset{CH_3}{|}}{C} = CH_2$

Answer: $H_2C = CH - \overset{\overset{Cl}{|}}{C} = CH_2$ **and** $H_2C = CH - CH = CH_2$

View Text Solution

Neet Che Dpp C 29 E 01 012

1. O

A. Interparticle forces present in nylon-6, 6 are

B. van der Waal 's

C. hydrogen bonding

D. dipole-dipole interactions

Answer: None of the above

View Text Solution

Neet Che Dpp C 29 E 01 013

1. O

A. Monomer of $\left[- \overset{\overset{CH_3}{|}}{\underset{\underset{CH_3}{|}}{C}} - CH_2 - \right]$ is

B. 2-Methylpropene

C. Styrene

D. Propylene

Answer: Ethene

View Text Solution

Neet Che Dpp C 29 E 01 014

1. O

A. Which of the following is not correctly matched?

B. Neoprene , $\left[-CH_2 - \underset{\underset{Cl}{|}}{C} = CH - CH_2 - \right]_n$

C. Nylon 6,6

$$\left[-NH-(CH_2)_6-NH-CO-(CH_2)_4-\overset{O}{\overset{||}{C}}- \right]_n$$

D. 

Answer: PMMA : $\left[--CH_2-\overset{CH_3}{\underset{COOCH_3}{\overset{|}{\underset{|}{C}}}}-- \right]$

View Text Solution

Neet Che Dpp C 29 E 01 015

1. O

A. Which of the following compound is used for preparation of melamine formaldehyde polymer ?

B. 

C. 

D. 

Answer: $(\#\#N\exists T_C H E_D P P_C 29_E 01_{015}\ \_\ O04\#\#)$

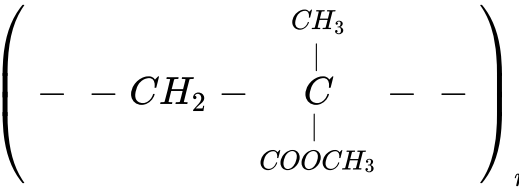
View Text Solution

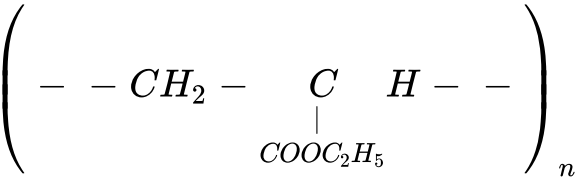
Neet Che Dpp C 29 E 01 016

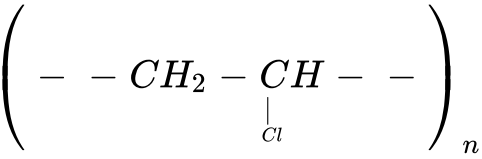
1. O

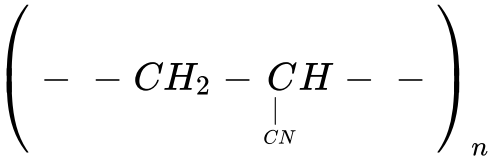
A. Acrilan is a hard, horny and a high melting material.

Which of the following represents its structure?

B. 

C. 

D. 

Answer: 

View Text Solution

Neet Che Dpp C 29 E 01 017

1. O

A. Bakelite is obtained from phenol by reacting with

B. $(CH_2OH)_2$

C. CH_3CHO

D. CH_2COCH_3

Answer: HCHO

View Text Solution

Neet Che Dpp C 29 E 01 018

1. O

A. Polymer fonnation from monomers starts by

B. condensation reaction between monomers

C. coordinate reaction between monomers

D. conversion of monomer to monomer ions by protons

Answer: hydrolysis of monomers

View Text Solution

Neet Che Dpp C 29 E 01 019

1. O

A. Melamine plastic crockery is a codensation polymer of

B. HCHO and melamine

C. HCHO and ethylene

D. melamine and ethylene

Answer: None of these

View Text Solution

Neet Che Dpp C 29 E 01 020

1. O

A. Which of the following is a polyamide?

B. Bakelite

C. Terylene

D. Nylon-6, 6

Answer: Tetlon

View Text Solution

Neet Che Dpp C 29 E 01 021

1. O

A. Terylene is a condensation polymer of ethylene glycol and

B. benzoic acid

C. phthalic acid

D. salicyclic acid

Answer: terephthalic acid

View Text Solution

Neet Che Dpp C 29 E 01 022

1. O

A. The monomer of the polymer,

B. 

C. $CH_3CH = CHCH_3$

D. $CH_3CH = CH_2$

Answer: $(CH_3)_2C = C(CH_3)_2$

View Text Solution

Neet Che Dpp C 29 E 01 023

1. O

A. Generally, molecular mass of a polymer is over

B. 100

C. 500

D. 1000

Answer: 10000

View Text Solution

Neet Che Dpp C 29 E 01 024

1. O

A. Plexiglas (PMMA) is a polymer of

B. acrylic acid

C. methyl acrylate

D. methyl methacrylate

Answer: None of these

View Text Solution

Neet Che Dpp C 29 E 01 025

1. O

A. Which one of the following is not a condensation polymer ?

B. Melamine

C. Glyptal

D. Dacron

Answer: Neoprene

View Text Solution

Neet Che Dpp C 29 E 01 026

1. O

A. Dacron is obtained by the condensation polymerisation of:

B. Dimethyl terephthalate and ethylene glycol

C. Terephthalic acid and formaldehyde

D. Phenol and phthalic acid

Answer: Phenol and formaldehyde

View Text Solution

Neet Che Dpp C 29 E 01 027

1. O

A. Which of the following is not a copolymer?

B. Buna-S

C. Baketite

D. Neoprene

Answer: Dacron

View Text Solution

Neet Che Dpp C 29 E 01 028

1. O

A. Ziegler-Natta catalyst is

B. $K[PtCl_3(C_2H_4)]$

C. $(Ph_3P)_3RhCl$

D. $Al_2(C_2H_5)_6 + TiCl_4$

Answer: $Fe(C_5H_5)_2$

View Text Solution

Neet Che Dpp C 29 E 01 029

1. O

A. Dacron is a -

B. crease resistant

C. polyamide

D. addition polymer

Answer: polymer of ethylene glycol and phthalic acid

View Text Solution

Neet Che Dpp C 29 E 01 030

1. O

A. The turbidity of a polymer solution measures

B. the light scattered by solution

C. the light absorbed by a solution

D. the light transmitted by a solution

Answer: None of these

View Text Solution

Neet Che Dpp C 29 E 01 031

1. O

A. Which of the following polymers do not involve cross linkages?

B. Melmac

C. Bakelite

D. Polythene

Answer: Vulcanised rubber

View Text Solution

Neet Che Dpp C 29 E 01 032

1. O

A. Which of the following statements are correct?

(i) Buna-N being resistant to the action of petrol, lubricating oil and organic solvents is used in making oil seals.

(ii) Biodegradable polymers are manufactured because of low chemical resistance, strength and durability of conventional polymers

(iii) PHBV is a copolymer used in the manufacture of orthopaedic devices

(iv)Nylon 2-nylon 6 is a biodegradable polymer.

B. (i), (ii) and (iii)

C. (ii), (iii) and (iv)

D. (i), (iii) and (iv)

Answer: (i) and (iv)

View Text Solution

Neet Che Dpp C 29 E 01 033

1. O

A. Arrange the following in increasing order of their melting point.

(1) Nylon 2,2, (2)Nylon 2,4, (3)Nylon2,6, (4)Nylon 2,10

B. 1,2,3,4

C. 3,4,2,1

D. 2,1,3,4

Answer: 4,3,2,1

View Text Solution

Neet Che Dpp C 29 E 01 034

1. O

A. A copolymer of isobutylene and isoprene is called:

B. butyl rubber

C. buna-S

D. buna-N

Answer: thiokol

View Text Solution

Neet Che Dpp C 29 E 01 035

1. O

A. Ebonite is

B. natural rubber

C. synthetic rubber

D. highly vulcanized rubber

Answer: polypropene

View Text Solution

Neet Che Dpp C 29 E 01 036

1. O

A. Orlon is a polymer of

B. styrene

C. tetrafluoroethylene

D. vinyl chloride

Answer: acrylonitrile

View Text Solution

Neet Che Dpp C 29 E 01 037

1. O

A. Among the following polymers the strongest molecular forces are present in

B. elastomers

C. fibres

D. thermoplastics

Answer: thermosetting polymers

View Text Solution

Neet Che Dpp C 29 E 01 038

1. O

A. Caprolactam polymcriscs to give

B. terylene

C. teflon

D. glyptal

Answer: Nylon-6

View Text Solution

Neet Che Dpp C 29 E 01 039

1. O

A. Match Column-I (Monomer) with Column-II (Polymer) and select the correct answer using the codes given

below the lists:

B. A-V , B-I , C-II , D-III

C. A-V , B-I , C-III , D-II

D. A-IV , B-III, C-I , D-II

Answer: A-IV ; B-III ; C-II ; D-I

View Text Solution

Neet Che Dpp C 29 E 01 040

1. O

A. Which of the following is novolac ?

B. 

C. 

D. 

Answer: $(\#\#N\exists T_C H E_D P P_C 29_E 01_{040} \_ O04\#\#)$

View Text Solution

Neet Che Dpp C 29 E 01 041

1. O

A. Match the polymers given in Column-I with their chemical names given in Column-II

B. A-III , B-I , C-II , D-V , E-IV

C. A-IV , B-II , C-V , D-III , E-I

D. A-V , B-IV , C-I , D-II , E-III

Answer: A-IV ; B-V ; C-III ; D-II ; E-I

View Text Solution

Neet Che Dpp C 29 E 01 042

1. O

A. Two condensation polymers are made

(1) ethylene diamine + ethane-1, 2-dicarboxylic acid

(2) trimethylenediamine + ethane-1, 2- dicarboxylic acid

if both polymers of same molecular weight are obtained

then which of the following statements is/are correct ?

(i) Polymer (1) is found to melt at lower temperahrre.

(ii) Polymer (2) is found to melt at lower temperature.

(iii) H-bonding is major factor

B. (i), (ii) and (iii)

C. Only (ii)

D. (i) and (iii)

Answer: (ii) and (iii)

View Text Solution

Neet Che Dpp C 29 E 01 043

1. O

A. Which of the following polymer is used for making phonograph records ?

B. Bakelite

C. Dacron

D. Teflon

Answer: PVC

View Text Solution

Neet Che Dpp C 29 E 01 044

1. O

A. Which of the following statements is not true about low density polythene?

B. Tough

C. Hard

D. Poor conductor of electricity

Answer: Highly branched struture

View Text Solution

Neet Che Dpp C 29 E 01 045

1. O

A. Polymer used in bullet proof glass is

B. PMMA

C. Lexan

D. Nomex

Answer: Kevlar

View Text Solution