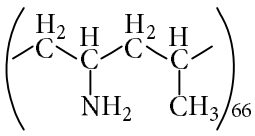
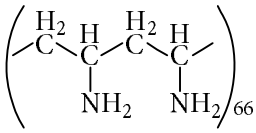
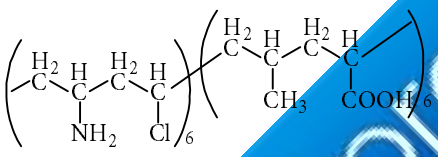
Chapter 29

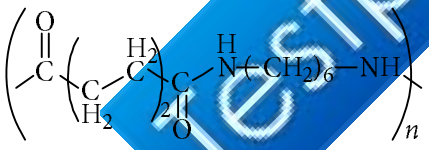
Polymers

1. Which one of the following structures represents nylon 6, 6 polymer?

(a) 

(b) 

(c) 

(d) 

(NEET-II 2016)

2. Natural rubber has
(a) alternate *cis*- and *trans*-configuration
(b) random *cis*- and *trans*-configuration
(c) all *cis*-configuration
(d) all *trans*-configuration. *(NEET-I 2016)*

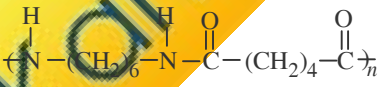
3. Caprolactam is used for the manufacture of
(a) teflon (b) terylene
(c) nylon 6, 6 (d) nylon 6. *(2015)*

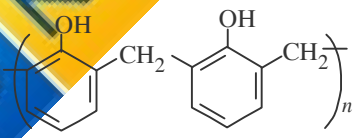
4. Biodegradable polymer which can be produced from glycine and aminocaproic acid is
(a) buna-N (b) nylon 6,6
(c) nylon 2-nylon 6 (d) PHBV.
(2015, Cancelled)

5. Which one of the following is an example of thermosetting polymer?

(a) $\left(CH_2-\underset{Cl}{\underset{|}{C}}=CH-CH_2\right)_n$

(b) $\left(CH_2-\underset{Cl}{\underset{|}{CH}}\right)_n$

(c) 

(d) 

(2014)

6. Which of the following organic compounds polymerizes to form the polyester dacron?
(a) Propylene and *para* HO—(C_6H_4)—OH
(b) Benzoic acid and ethanol
(c) Terephthalic acid and ethylene glycol
(d) Benzoic acid and *para* HO—(C_6H_4)—OH
(2014)

7. Nylon is an example of
(a) polyamide (b) polythene
(c) polyester (d) polysaccharide.
(NEET 2013)

8. Which is the monomer of neoprene in the following?

(a) $CH_2=\underset{Cl}{\underset{|}{C}}-CH=CH_2$

(b) $CH_2=CH-C\equiv CH$

(c) $CH_2=CH-CH=CH_2$

(d) $CH_2=\underset{CH_3}{\underset{|}{C}}-CH=CH_2$ *(NEET 2013)*

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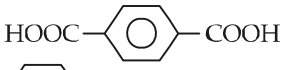
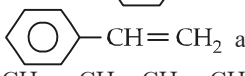
9. Which one of the following is not a condensation polymer?
(a) Melamine (b) Glyptal
(c) Dacron (d) Neoprene
(2012)

10. Which of the following statements is false?
(a) Artificial silk is derived from cellulose.
(b) Nylon-6,6 is an example of elastomer.
(c) The repeat unit in natural rubber is isoprene.
(d) Both starch and cellulose are polymers of glucose. *(2012)*

11. Which one of the following sets forms the biodegradable polymer?
(a) $CH_2{=}CH-CN$ and $CH_2{=}CH-CH{=}CH_2$
(b) H_2N-CH_2-COOH and $H_2N-(CH_2)_5-COOH$
(c) $HO-CH_2-CH_2-OH$ and



(d)  and $CH_2{=}CH-CH{=}CH_2$ *(Mains 2012)*

12. Of the following which one is classified as polyester polymer?
(a) Terylene (b) Bakelite
(c) Melamine (d) Nylon-6,6
(2011)

13. Which of the following structures represents neoprene polymer?
(a) $\left[CH_2-\underset{\underset{Cl}{|}}{C}{=}CH-CH_2\right]_n$
(b) $\left[CH_2-\overset{\overset{Cl}{|}}{CH}\right]_n$ (c) $\left[CH_2-\overset{\overset{CN}{|}}{CH}\right]_n$
(d) $\left[\underset{\underset{C_6H_5}{|}}{CH}-CH_2\right]_n$ *(2010)*

14. Structures of some common polymers are given. Which one is not correctly presented?
(a) Neoprene-

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

(b) Terylene -

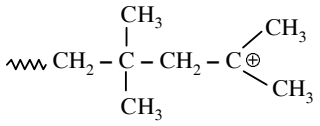
(c) Nylon 6,6 -
$\left[NH(CH_2)_6NHCO(CH_2)_4-CO\right]_n$
(d) Teflon - $\left[CF_2-CF_2\right]_n$
(2009)

15. Which one of the following statements is not true?
(a) Buna-S is a copolymer of butadiene and styrene.
(b) Natural rubber is a 1,4-polymer of isoprene.
(c) In vulcanization, the formation of sulphur bridges between different chains make rubber harder and stronger.
(d) Natural rubber has the *trans*-configuration at every double bond.
(2008)

16. Which one of the following polymers is prepared by condensation polymerisation?
(a) Teflon (b) Natural rubber
(c) Styrene (d) Nylon-6,6
(2007)

17. $\sim\!\left[NH(CH_2)_6NHCO(CH_2)_4CO\right]_n\!\sim$ is a
(a) homopolymer
(b) copolymer
(c) addition polymer
(d) thermosetting polymer.
(2006)

18. The monomer of the polymer



is
(a) $H_2C{=}C(CH_3)_2$
(b) $CH_3CH{=}CHCH_3$
(c) $CH_3CH{=}CH_2$
(d) $(CH_3)_2C{=}C(CH_3)_2$ *(2005)*

19. Which one of the following is a chain growth polymer?
(a) Starch (b) Nucleic acid
(c) Polystyrene (d) Protein *(2004)*

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

(a) $\left[-CH_2-\underset{\underset{CN}{|}}{CH}-\right]_n$

(b) $\left[-CH_2-\overset{\overset{CH_3}{|}}{\underset{\underset{COOCH_3}{|}}{C}}-\right]_n$

(c) $\left[-CH_2-\underset{\underset{COOC_2H_5}{|}}{CH}-\right]_n$

(d) $\left[-CH_2-\underset{\underset{Cl}{|}}{CH}-\right]_n$ *(2003)*

21. Which one of the following monomers gives the polymer neoprene on polymerization?

(a) $CH_2{=}CHCl$ (b) $CCl_2{=}CCl_2$

(c) $CH_2{=}\overset{\overset{Cl}{|}}{C}-CH{=}CH_2$ (d) $CF_2{=}CF_2$

(2003)

22. 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. *(2002)*

23. Cellulose is polymer of

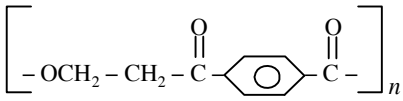
(a) glucose (b) fructose

(c) ribose (d) sucrose. *(2002)*

24. Which of the following is not correctly matched?

(a) Neoprene : $\left[-CH_2-\underset{\underset{Cl}{|}}{C}{=}CH-CH_2-\right]_n$

(b) Nylon-6,6 : $\left[-NH-(CH_2)_6-NH-CO-(CH_2)_4-\overset{\overset{O}{||}}{C}-O-\right]_n$

(c) Terylene : 

(d) PMMA : $\left[-CH_2-\overset{\overset{CH_3}{|}}{\underset{\underset{COOCH_3}{|}}{C}}-\right]_n$. *(2001)*

25. $CF_2{=}CF_2$ is monomer of

(a) teflon (b) orlon

(c) polythene (d) nylon-6.

(2000)

26. Which compound forms linear polymer due to H-bond?

(a) H_2O (b) NH_3

(c) HF (d) HCl *(2000)*

27. Natural rubber is a polymer of

(a) styrene (b) ethyne

(c) butadiene (d) isoprene.

(1999)

28. Terylene is a condensation polymer of ethylene glycol and

(a) salicylic acid (b) phthalic acid

(c) benzoic acid (d) terephthalic acid.

(1999)

29. Which one of the following is used to make 'non-stick' cookware?

(a) Poly-ethylene terephthalate

(b) Polytetrafluoroethylene

(c) PVC

(d) Polystyrene *(1997)*

30. The bakelite is prepared by the reaction between

(a) phenol and formaldehyde

(b) tetramethylene glycol

(c) urea and formaldehyde

(d) ethylene glycol. *(1995)*

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Answer Key

1.	(d)	**2.**	(c)	**3.**	(d)	**4.**	(c)	**5.**	(d)	**6.**	(c)	**7.**	(a)	**8.**	(a)	**9.**	(d)	**10.**	(b)
11.	(b)	**12.**	(a)	**13.**	(a)	**14.**	(a)	**15.**	(d)	**16.**	(d)	**17.**	(b)	**18.**	(a)	**19.**	(c)	**20.**	(a)
21.	(c)	**22.**	(a)	**23.**	(a)	**24.**	(c)	**25.**	(a)	**26.**	(c)	**27.**	(d)	**28.**	(d)	**29.**	(b)	**30.**	(a)