



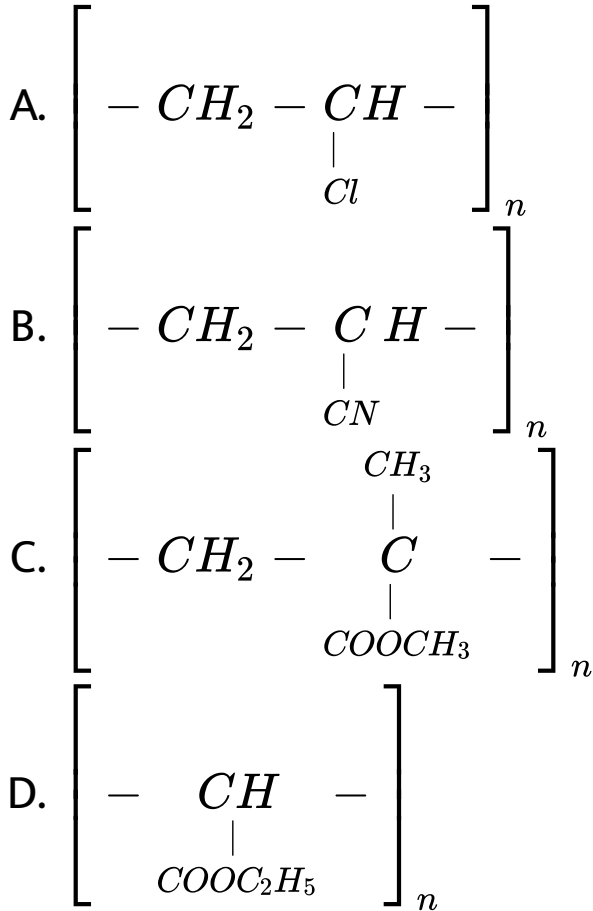
# CHEMISTRY

## BOOKS - NTA MOCK TESTS

### POLYMERS TEST-1

Single Choice

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



**Answer: B**



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2. Which of the following is currently used in making tyre cords?

A. Terylene

B. Polyethylene

C. Polypropylene

D. Nylon-6

**Answer: D**



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3. Teflon is obtained by the polymerisation of:

A. monofluoroethene

B. difluoroethene

C. trifluoroethene

D. tetrafluoroethene

**Answer: D**



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4. Condensation of diethyl carbonate and bisphenol-A polymerises to form:

A. Nomex

B. Lexan

C. Mylar

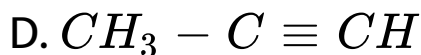
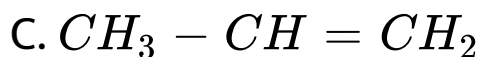
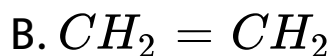
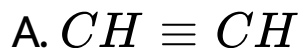
D. Rayon

**Answer: B**



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5. Polypropylene is obtained by polymerisation of:



**Answer: C**



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6. Which of the following is an example of polyamide?

A. PVC

B. Nylon-6

C. Terylene

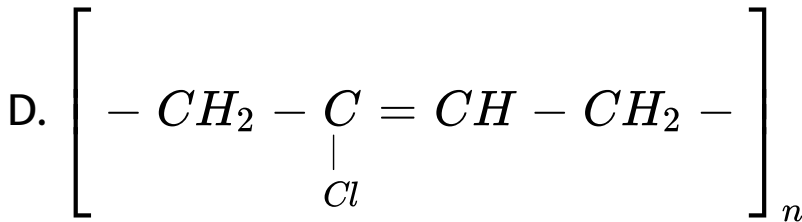
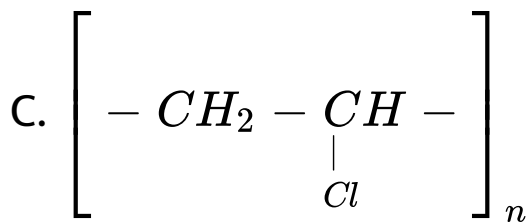
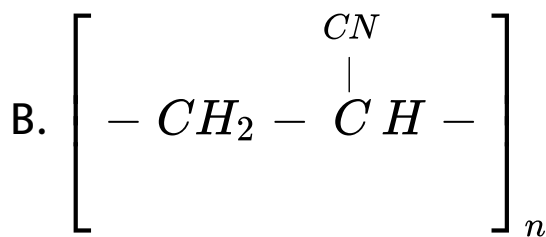
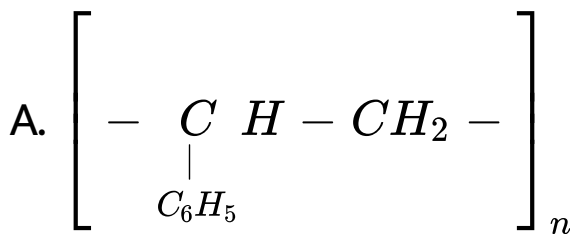
D. Bakelite

**Answer: B**



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7. Which of the following structures represent repeating units of neoprene polymer?



**Answer: D**



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**8. Match the polymer in Column A with its main uses in Column B: Column A**

(a) Polystyrene

(b) Glyptal

(c) Polyvinyl chloride

(d) Bakelite

**Column B**

(I) Paints and lacquers

(II) Rain coats

(III) Manufacture of toys

(IV) Computer discs

A.

$(a) - (ii), (b) - (i), (c) - (iii), (d) - (iv)$

B.

$(a) - (ii), (b) - (iv), (c) - (iii), (d) - (i)$

C.

$(a) - (iii), (b) - (i), (c) - (ii), (d) - (iv)$

D.

$(a) - (iii), (b) - (iv), (c) - (ii), (d) - (i)$

**Answer: C**



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9. Which of the following is a natural polymer?

A. Cellulose

B. PVC

C. Teflon

D. Polyethylene

**Answer: A**



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10. Identify the mismatch:

A. Nylon-2-Nylon-6: biodegradable

B. Nylon-6,6: caprolactam

C. Nylon-6, 10: bristles for brushes

D. Nylon-6, 6: adipic acid

**Answer: B**



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11. Identify the mismatch in the following:

A. PHBV : Polyester

B. Dextron : Biodegradable

C. SBR : Gutta percha

D. Bakelite : Thermosetting

**Answer: C**



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**12.** A polymer, which finds use in baby feeding bottles:

A. is a copolymer

B. is a condensation polymer

C. can be formed by anionic polymerisation

D. cannot be formed by cationic  
polymerisation

**Answer: C**



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**13.** Which one of the following is used to make aircraft windows?

A. PVC

B. PMMA

C. PAN

D. PTFE

**Answer: B**



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14. Which of the following statement is true?

A. Melamine formaldehyde is used for making electrical switches.

B. Plasticizers are substances which are used to make plastic soft.

C. Nylon-6 is a biodegradable semi synthetic polymer.

D. In the manufacture of ebonite, 5% of sulphur is used as a cross-linking agent.



**Answer: B**



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15. 

In the above equations, which of the following are correct?

(a) X and Y both are hard and tough

(b) Y has a branched structure and X has a linear structure

(c) X is prepared by free radical mechanism

and Y by coordination polymerisation

(d) X is a poor conductor of electricity

A. Both (a) and (d)

B. Both (b) and (d)

C. Both (c) and (d)

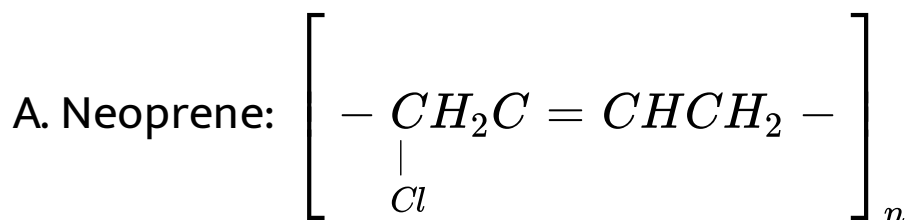
D. Both (a) and (c)

**Answer: C**

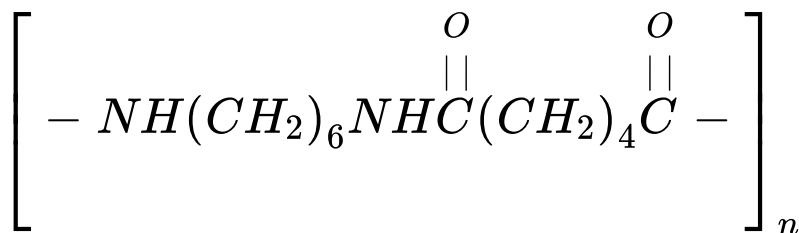


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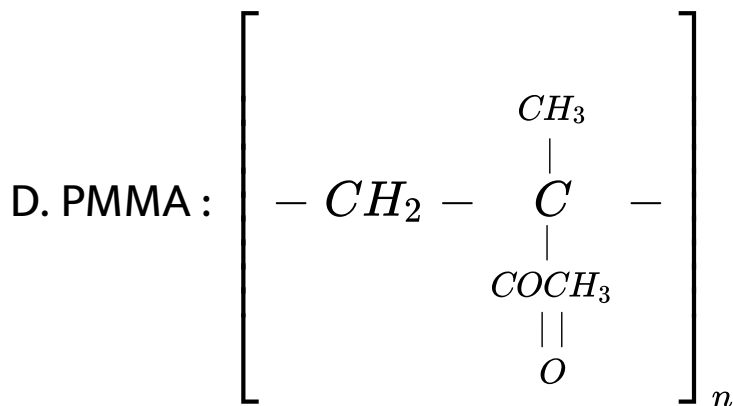
16. Which one of the following is not correctly matched?



B. Nylon-6, 6:



C. 



**Answer: C**



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17. 

In the above equations, X and Y can be,

(a)  $X = COOCH_3$ ,  $Y = H_2 / Ni / Heat$

(b)  $X = CONH_2$ ,  $Y = H_2 / Ni / Heat$

(c)  $X = CN$ ,  $Y = H_2 / Ni / Heat$

A. (a) and (c)

B. (b) and (c)

C. (a) and (b)

D. All of these

**Answer: D**



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**18.** 

Compounds (C) and (D) are :

A. 

B. 

C. 

D. 

**Answer: B**



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**19.** Which one of the following is used to make lenses?

A. PVC

B. PMMA

C. PAN

D. PTFE

**Answer: B**



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20. Bakelite is obtained from phenol by reacting with

A. ethylene glycol

B. acetaldehyde

C. acetone

D. formaldehyde

**Answer: D**



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**21. Among**

(a) Proteins

(b) Starch

(c) Nucleic acid

Which of these are natural polymers?



A. Both (a) and (b)

B. Both (a) and (c)

C. Both (b) and (c)

D. All of these

**Answer: D**



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**22.** A type of polymer is generally formed from bifunctional and trifunctional monomer and contains strong covalent bonds between

various polymer chains. The polymer may structurally be?

- A. Linear polymer
- B. Branched chain polymer
- C. Cross-linked or network polymer
- D. none of these

**Answer: C**



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23. Which of the following is not a semi synthetic polymer?

- A. cis-polyisoprene
- B. Cellulose nitrate
- C. Cellulose acetate
- D. Vulcanised rubber

**Answer: A**



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**24.** Which of the following are characteristics of thermosetting polymers?

(a) Heavily branched cross-linked polymers

(b) Linear, slightly branched long chain molecules.

(c) Become infusible on moulding, 50, cannot be reused.

(d) Soften on heating and harden on cooling, can be reused.

A. Both (b) and (c)

B. Both (a) and (d)

C. (a), (b) and (c)

D. Both (a) and (c)

**Answer: D**



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**25.** The plastics that are hard, become soft and readily workable by addition of certain compound called?

A. Catalysts

B. Scavenger

C. Plasticisers

D. Vulcaniser

**Answer: C**



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**26.** The most suitable method for determination of the molecular mass of polymer is?

A. Osmotic pressure

B. Victor Meyer's method

C. Elevation in boiling point

D. Depression in freezing point

**Answer: A**



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**27.** Which of the following properties do belong to polymers:

(a) Does not carry any charge.

(b) Has high viscosity.

(c) Scattering of light.

(d) Has low molecular weight.

A. Both (a) and (b)

B. (a), (b), (c) and (d)

C. (a), (b) and (c)

D. (d) only

**Answer: C**



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**28. Thermosetting polymers:**

(a) are formed by condensation reaction.

(b) have cross-linked structure.

(c) are hard, rigid and brittle.

Correct statements are.

A. Both (a) and (b)

B. Both (a) and (c)

C. (a), (b) and (c)

D. Both (b) and (c)

**Answer: C**





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29. The thermosetting plastic among the following is:

A. Bakelite

B. Polythene

C. Polyvinyl chloride

D. Perspex

**Answer: A**



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**30.** Which of the following properties are associated with thermoplastics?

Which of the following properties are associated with thermoplastics?

(a) Linear polymers

(b) Highly cross-linked

(c) Slightly branched long chain molecules

(d) Moulded easily by heating

A. (a), (c) and (d)

B. (a), (b) and (d)

C. Both (b) and (d)

D. Both (a) and (d)

**Answer: A**



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