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Tel: 1800-2000-838

Class: 12 Subject: chemistry **Topic: Chemistry in every day life** No. of Questions: 20 **Duration: 60 Min Maximum Marks: 60**

1. Formation of polyethylene from calcium carbide takes place as follows

 $CaC_2 + 2H_2O \rightarrow Ca(OH)_2 + C_2H_2$ $C_2H_2 + H_2 \rightarrow C_2H_4$ $nC_2H_4 \rightarrow (-CH_2 - CH_2 -)_n$ The amount of polyethylene obtained from 64.1 kg of CaC₂ is

The amount of polyethylene obtained from 64.1 kg of CaC2 is

A. 7kg

- B. 14kg
- C. 21kg
- D. 28kg

Ans. D

Solution:

$$(i) CaC_{2} + 2H_{2}O \longrightarrow Ca(OH)_{2} + C_{2}H_{2}$$

$$(ii)C_{2}H_{2} + H_{2} \longrightarrow C_{2}H_{4}$$

$$(iii) nC_{2}H_{2} \longrightarrow [-CH_{2} - CH_{2} -]n$$

$$\underset{or28kg}{n\times 28kg} \longrightarrow [-CH_{2} - CH_{2} -]n$$

Thus 64 kg of CaC_2 gives 26Kg of acetylene which in tum gives 28 Kg of ethylene whose 28 kg gives 28 Kg of polymer, polythene.

2. Acetoxy benzoic acid is

- A. Antiseptic
- B. Aspirin
- C. Antibiotic
- D. Mordant dye

Ans. B



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- 3. Alizarin belongs to the class of
 - A. Vat dyes
 - B. Mordant dyes
 - C. Substantive dyes
 - D. Reactive dyes

Ans. B

Solution:

A mordant is any substance which can be fixed to the fibre and which can be dyed later on mostly hydroxide or basic salts of chromium aluminium and iron are used as mordant. A dye which imparts different colours in the presence of different mordant isreferred to as a mordant dye. For ex. alizarin is mordant dye when mordanted with aluminium salt solution. It imparts rose red colourto fabric but the same fabric is dyed blue when it is mordanted with barium salt and it dyes violet is mordant with Ferric salt.

4. On the basis of mode of formation, polymers can be classified?

- A. as addition polymers only
- B. as condensation polymers only
- C. as copolymers
- D. Both as addition and condensation polymers

Ans. D

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6. $CF_{2}=CF_{2}$ is a unit of

A. Teflon B. Buna –S C. Bakelight D. Polythene Ans. A Solution :

n CF₂ = CF₂ $\xrightarrow{\text{Polymerisation}}$ [--CF₂ --CF₂ --]_n Teflon



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- 7. Which of the following is an example of basic dye
 - A. Alizarin
 - B. Malachite green
 - C. Indigo
 - D. Orange I

Ans. B

Solution:

Basic dyes contain NH₂ or-NR₂ groups as colour bearing group or colour enhancing groups they are generally used for Wool, cotton, leather, paper, polyester, nylon etc. e.g. aniline yellow, crysodine G, butter yellow, malachite green etc

8. Ebonite is

- A. Natural rubber
- B. Synthetic rubber
- C. Highly vulcanized rubber
- D. Polypropene

Ans. C

Solution:

Ebonite is a hard highly vulcanized rubber, containing 20-30%, rubber

9. Which is not true about polymers?

- A. Polymers do not carry any charge
- B. Polymers have high viscosity
- C. Polymers scatter light
- D. Polymers have low molecular weight

Ans. D

10. The following compound is used as

CH COOH

- A. An anti-inflammarory compound
- B. Analgesic
- C. Hypnotic
- D. Antiseptic



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Ans. B

Solution:

It is acetyl salicylic acid i.e., aspirin analgesic and antipyretic

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

- A. Melmac
- B. Bakelite
- C. Polythene
- D. Vulcanised rubber

Ans. C

Solution:

Polythene is a linear polymer

12. Which one of the following is employed as a tranquilizer drug?

- A. Promethazine
- B. Valium
- C. Naproxen
- D. Mifepristone

Ans. B

Solution:

Valium

13. P.V.C. is formed by polymerization of

- A. 1 -Chloroethene
- B. Ethene
- C. Propene
- D. 1-Chloropropene

Ans. A

Solution:

P.V.C. (Polyvinyl chloride) is formed by polymerisation of vinyl chloride, CH₂=CHCl, whose IUPAC name is I- chloroethene



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14. Detergents are prepared by the action of H₂SO₄ followed by neutralization by starting with

- A. Cholesterol
- B. Lauryl alcohol
- C. Cyclohexanol
- D. p-Nitro phenol

ans. B

solution:

15. An example of anthraquinone dye is

- A. Alizarin
- B. Basic acid
- C. Methylene blue
- D. Phenolphthalein

Ans. A Solution:

Alizarin is an example of anthraquinon dye

16. Chloroquine is a drug for controlling

- A. fever
- B. pain
- C. sleep
- D. malaria

Ans. D

- 17. Aspirin is
 - A. Antibiotic
 - B. Antipyretic
 - C. Sedative
 - D. Psychedelic

Ans. B

Solution: Aspirin is antipyretic i.e., a drug which is responsible for lowering the temperature of Feverish organism to normal, other antipyretic drugs areParacetamol, Phenacetin

18. An antipyretic is

- A. Quinine
- B. Paracetamol
- C. Luminal
- D. Piperazine

Ans. B



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Solution:

Paracetamol is an antipyretic

19. When condensation product of hexamethylenediamine and adipic acid is heated to 553K (800 C) in an atmosphere of nitrogen or about 4-5 hours, the product obtained is

- A. Solid polymer of nylon 66
- B. Liquid polymer of nylon 66
- C. Gaseous polymer of nylon 66
- D. Liquid polymer of nylon 6

Ans. B

Solution: The condensation on polymerization of hexamethylenediamine and adipic acid is done in solution form by interface technique In this liquid nylon polymer is obtained.

in this liquid hyton polymer is obtained.

$$\begin{split} & \text{n.H}_{2}\text{N} \cdot (\text{CH}_{2})_{6} \cdot \text{NH}_{2} \\ & \text{nHOOC} \cdot (\text{CH}_{2})_{4} \cdot \text{COOH} \frac{\text{Polymerisa tion}}{-\text{nH}_{2}\text{O}} \\ & [\text{-HN} \cdot (\text{CH}_{2})_{6} \cdot \text{NHCO} \cdot (\text{CH}_{2})_{4} \cdot \text{CO} \cdot]_{n} \end{split}$$

20. Which is not a macromolecule?

A. DNA

- B. Starch
- C. Palmitate
- D. Insulin.

Ans. C Solution:

Palmitate is just a salt or an ester of palmic acid (a fatty add of the formula $C_{15}H_{31}COOH$)