CHEMISTRY

BOOKS - A2Z CHEMISTRY (HINGLISH)

BIOMOLECULES

Biomolecules Carbohydrates

1. Sucrose on hydrolysis gives:

A. glucose and galactos

B. maltose and galactos

C. glucose and fructose

D. None of these

Answer: C

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2. Hydrolysis of sucrose is called:

A. sapnification

B. hydration

C. inversion

D. esterification

Answer: C

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3. The two forms of `D-glucopyranose obtained from solution of D-glucose are known as:

A. anomers

B. epimers

C. enantiomers

D. geometrical isomers

Answer: A

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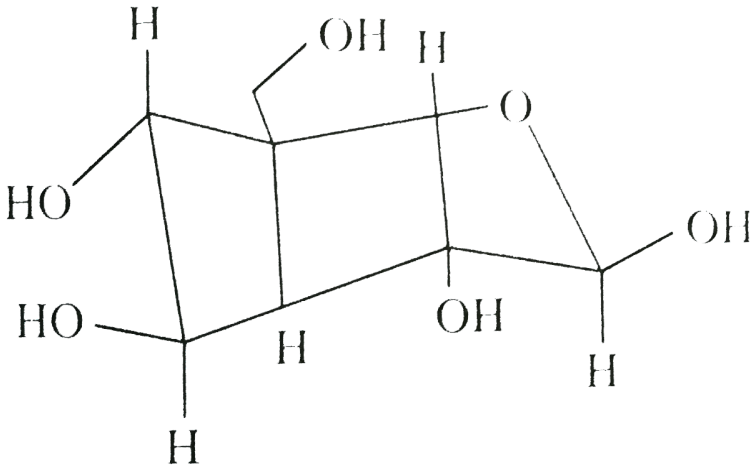
4. The following carbohydrate is:



A. a ketchexose

B. an aldohexose

C. an α-furanose

D. an α-pyranose

Answer: B

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5. Glucose and fructose can be distingusied by:

A. Lucas test

B. Ninhydrin test

C. Benedict regent test

D. All of the these

Answer: C

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6. The number of chiral carbons in $\beta - D(+) -$ glucose is:

A. 5

B. 6

C. 3

D. 4

Answer: A

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7. Gums are:

A. polysaccharides of more than one type of monosaccharides

B. used as a thicking agent

C. used for improvement of texture in food industry

D. all of the above

Answer: D

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8. Aqueous solution of carbohydrate with 2 drop of alcholic solution of α-naphthol and H_2SO_4 gives a ring at the junction. The colour of the ring is:

A. yellow

B. green

C. violet

D. red

Answer: C

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9. Glucose reacts with methy1 alcohol to give:

A. α-methy1glucoside

B. β-methyl glucoside

C. both (a) and (b)

D. None of these

Answer: C

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10. Starch is changed into disaccharides in pressence of:

A. diastase

B. maltase

C. lactase

D. zymase

Answer: A

11. Which carbohydrate is used in silvering of mirrors?

A. Sucrose

B. Starch

C. Glucose

D. Fructose

Answer: C

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12. Which is used for making rayon (artifical silk)?

A. Starch

B. Cellulose

C. Terepthalic

D. Adipic acid

Answer: B

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13. Animal starch is the name given for:

A. glycogens

B. lactogens

C. Cellulose

D. None of these

Answer: A

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14. The total number of C-atoms β- fructofuranose are:

A. 6

B. 5

C. 4

D. 7

Answer: A

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15. Cellulose is a:

A. monosaccharide

B. disaccharide

C. polysaccharide

D. none of these

Answer: C

16. Common table sugar is more formally described as:

A. glucose

B. lactose

C. maltse

D. sucrose

Answer: D

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17. Which does not contain carbohydrate?

A. cellulose

B. Wax

C. Strach

D. Wheat flour

Answer: B

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18. Lactose has the same molecular formula as:

A. glucose

B. maltose

C. laevulose

D. galactose

Answer: B

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19. Dhydroxy acetrone $(CH_2OH.CO.CH_2OH))$ has the general formula of carbohydrate but not included in this class because:

A. it does not contain polydroxy group

B. it does not contain aldehyde group

C. it is not optically active

D. all of the above

Answer: C

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20. Dextrins $(C_6H_{10}O_5)_n$ are used in :

A. maing adhesive

B. confectionary

C. sizing paper

D. all of these

Answer: D

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21. Artificial sweetener used in soft drinks is:

A. glucose

B. fructose

C. Cellulose

D. aspartame

Answer: D

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22. The sugar present in honey is:

A. sucrose

B. glucose

C. fructose

D. maltose

Answer: C

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23. The reaction of glucose with red $P + HI$ is called:

A. Sandmeyer reaction

B. Reformatsky reaction

C. Gattermann reaction

D. reduction

Answer: D

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24. The intermedite compound in the conversion of starch to glucose is:

A. to the right side

B. to the left side

C. either side

D. none of these

Answer: A

25. The intermediate compound in the conversion of starch to glucose is:

A. lactose

B. maltose

C. fructose

D. sucrose

Answer: B

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26. Which statement about ribose is correct?

A. A polyhydroxy compound

B. An aldehyde sugar

C. Has six carbon atoms

D. Exhibits optical activity

Answer: C

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27. Which of the following enzymes are used to convert starch into alcohol?

A. maltose, diastase

B. Invertase, zymase

C. Diastase, Maltase, Zymase

D. Invertase, Diastase, Zymase

Answer: C

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28. Which of the following gives reddish brown precipitate with dilute solution of resorcinol in dilute HCI?

A. Glucose

B. fructose

C. Lactose

D. maltose

Answer: B

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29. Acetone may be obtained from strach by the action of :

A. acid

B. bacteria

C. oxidizing agent

D. None of these

Answer: B

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30. Glucose on reduction with Na/Hg and water gives:

A. sorbitol

B. fructose

C. saccharic acid

D. gluconic acid

Answer: A

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31. The charing product formed when $C_6H_{12}O_6$ is heated with cone, H_2SO_4 is due to:

A. oxidation

B. reduction

C. dehydration

D. dehydrogenation

Answer: C

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32. Epimers are pair of diasteroisomeric aldoeses which differ only in configuration at position:

A. C_5

B. C_2

C. C_4

D. C_3

Answer: B

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33. When glucose is heated with nitirc acid, the product is:

A. gluconic acid

B. glucaric acid

C. glycoic acid

D. oxalic acid

Answer: B

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34. The polysaccharide used in the manufacture of paper is

A. cellulose

B. starch

C. glucose

D. sucrose

Answer: A

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35. Complete hydrolysis of cellulose gives:

A. D-glusoe

B. L-glucose

C. D-fructose

D. D-ribose

Answer: A

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36. Purity of butter is detemined in terms of:

A. saponification value

B. iodine value

C. aeety1 value

D. Reichert-Meissl value

Answer: D

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37. Lactose is made of:

A. $\beta - D$ galactose and $\beta - D -$ glucose

B. $\alpha - D$ galactose and $\beta - D -$ glucose

C. $\beta - D$ galactose and $\alpha - D -$ glucose

D. $\alpha - D$ galactose and $\alpha - D -$ glucose

Answer: B

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38. A nonopeptide contains. . . . . peptide linkages.

A. 10

B. 8

C. 9

D. 18

Answer: B

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39. What socrose is heated with concentrated nitric acid the product is:

A. saccharic acid

B. oxalic acid

C. formic acid

D. invert sugar

Answer: B

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40. The change in optical rotation with time of freshly prepared solution of sugar is known as :

A. specific rotation

B. inversion

C. rotatory motion

D. mutarotation

Answer: B

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41. To become a carbohydrate, a compound must contain at least:

A. 6 carbons

B. 3 carbons

C. 4 carbons

D. 2 carbons

Answer: B

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Proteins

1. Which one of the following metal ionss is essential inside the cell for the metabolsim of $glu\cos e/synthesis$ of proteins:

A. Na^+

B. K^+

C. Mg^{2+}

D. Ca^{2+}

Answer: C

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2. Which of the following α-amino acids is not optically active?

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3. A certain compound gives negativesf test with ninhydrin and positive test with Benedict's solution, the compound is:

A. a protein

B. a liquid

C. a monosaccharide

D. an amino acid

Answer: C

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4. The name of the dipeptide

A. Glyeylglycine

B. Glycine

C. Glycine alanine

D. Alanylglycie

Answer: D

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5. Biuret test is not given by:

A. proteins

B. urea

C. polypeptide

D. carbohydrates

Answer: D

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6. The force of attractin between the neighbouring peptide chains is

A. van der Waal force

B. Covalent bond

C. Hydrogen bond

D. Peptide linkage

Answer: C

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7. Which of the following amino acids is not optically

A. Lysine

B. Tyrosine

C. Glycine

D. Alanine

Answer: C

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8. A mixture contains three amino acids $A(pH = 3.2), B(pH = 5.7)$ and $C(pH = 9.7)$

When it is subjected to electrophoresis at pH 7.7, in

which direction will each component of the mixture move?

A. A to anode, B and C to cathode

B. A to anode, B no movement, C to cathode

C. A and B to anode C to cathode

D. A to cathode, B no movement, C to anode

Answer: C

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9. Lysine is least soluble in water in the pH range.

A. 3 to 4

B. 5 to 6

C. 6 to 7

D. 8 to 9

Answer: D

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10. Consider the following compounds.

(I) Glycine (II) Sulphanilic acid

(III) Anthranilic acid

Which can form dipolar (Zwitter) ion?

A. I and II

B. I, II and III

C. II and III

D. I and III

Answer: B

11. Which of the following is a heterocyclic amino acid?

A. Tryptophan

B. Phenylalanine

C. Glycine

D. Alanine

Answer: A

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12. Which of the following statements is true for protein synthesis (translation)?

A. Amino acids are directly recognize by $m - RNA$

B. The third base of the codon is less specific

C. Only one condon codes or an amino acid

D. Every $t - RNA$ molecules has more than one amino acid attachment

Answer: A

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13. The pK_{a1} and pK_{a2} of an amino acid are 2.3 and 9.7 respectively. The isoelectric point of the amino acid is:

A. 6

B. 3.7

C. 12

D. 7.4

Answer: A

14. Peptides are formed by the joining of amino acids through amide linage. Which of the following statement is not true in this respect?

A. Amide groups do not contribute in the hydrogen bonding interactions

B. $p\pi$ resonance stabilizes the amide linkages

C. Amide groups are more resistant to hydrolysis than similar ester groups

D. Stable conformations of peptides are restricted to those having planar amide groups

Answer: A

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15. Which one of the given proteins transports oxygen in the blood stream?

A. Myoglobin

B. Insulin

C. Albumin

D. Haemoglobin

Answer: D

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16. Which of the following is not considered a part of the tertiary structure or proteins?

A. The restricted rotation in amide bonds

B. The hydrophobic effect

C. The electrostatic interaction

D. The hydrogen bonds.

Answer: A

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17. Which amino acid has no asymmetric carbon?

A. Histidine

B. Threonine

C. α-alanine

D. Glycine

Answer: D

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18. The most important contribution to the stability of a protein conformation appears to be the

A. entropy increase from the decrease in ordered water molecules forming a solvent shell around it

B. maximum entropy increase from ionic interactions between the ionized amino acids in a protein

C. sum of free energies of formation of many weak interactions between its polar amino acids and surrounding water molecules

D. sum of free energies the hundreds of amino acids in a protein

Answer: D

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Vitamins Hormones And Nucleic Acid

1. Vitamin A is called:

A. ascorbic acid

B. lactic acid

C. citric acid

D. paracetamol

Answer: A

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2. Which base is present in RNA but not in DNA?

A. Cytosin

B. Guanine

C. Uracil

D. Adenine

Answer: C

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3. Which of the following is not a fat soluble vitamin?

A. Vitamin A

B. Vitamin K

C. Folic acid

D. Vitamin E

Answer: C

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4. Which of the following statements is not true?

A. Pheromones are secreted outside the body by the insects

B. Aspirin in analgesis and antipyretic

C. Sucrose is a dipeptide commonly known as aspartanme

D. The DNA assists in the synthesis of RNA molecules

Answer: C

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5. The segment of DNA which acts as the instrumental manual for the synthesis of the protein is:

A. ribose

B. gene

C. nucleoside

D. nucleotide

Answer: B

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6. DNA multiplication is called:

A. translation

B. transduction

C. replication

D. transcrption

Answer: C

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7. The pair in which both the species have iron is:

A. Nitrogenase, cytochromes

B. Carboxypeptidase, haemoglobin

C. Haemocyanin, nitorgenase

D. Haemoglobin, cytochromes

Answer: D

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8. The anti-sterility or anti-reproductory vitamin is:

A. Vitamin B

B. Vitamin C

C. Vitamin D

D. Vitamin E

Answer: D

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9. Vitamin B_1 is:

A. ascorbic acid

B. riboflavin

C. pyridoxine

D. thiamine

Answer: D

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10. The hormone that helps in the conversion of glucose into glycogen is:

A. cortisone

B. bile salt

C. adrenaline

D. insulin

Answer: C

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11. DNA and RNA are chiral molecule due to the presence of:

A. chiral bases

B. phosphate ester unit

C. D-sugar component

D. L-sugar component

Answer: C

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Polymers

1. The process of vulcanistation makes rubber

A. Soluble in water

B. Elastic

C. Hard

D. Soft

Answer: C

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2. Orlon is a polymer of

A. Styrene

B. Tetrafluoro ethylene

C. Viny1 chloride

D. Acrylonitrile

Answer: D

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3. Neoprene is a polymer of

A. propene

B. Viny1 chloride

C. Chloroprene

D. Butadiene

Answer: C

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4. If N_1, N_2, N_3.....Are the number of molecules with molecular masses M_1, M_2, M_3.....respectively, then average molecular mass is expressed as

A. $\frac{\sum N_i M_i^2}{\sum N_i M_i}$

B. $\frac{\sum N_i M_i}{\sum N_i}$

C. both of these

D. None of these

Answer: C

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5. Buna-N synthetic rubber is a copolymer if:

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

$H_2C = CH - CH = CH_2$

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

$H_5C_6 - CH = CH_2$

C. $H_2C = CH - CN$ and

$H_2C = CH - C = CH_2$

D. $H_2C = CH - CN$ and

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

Answer: C

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6. Given th polymers,

$A =$ Nylon-6,6, $B =$ Buna-S, $C =$ Polythene

Arrange these in decreasing order of their intermolecular forces:

A. $C < B < A$

B. $B > C > A$

C. $B < C < A$

D. $C < A < B$

Answer: A

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7. The species which can best serve as an initiator for the cationic polymerization is:

A. HNO_3

B. $AlCl_3$

C. $BuLi$

D. $LiAlH_4$

Answer: B

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

A. Nylon-6,6`

B. Nylon-6

C. Dacron

D. Buna-S

Answer: D

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9. A thermoplastic among the following is:

A. bakelite

B. polystyrene

C. terylene

D. urea formaldehyde resin

Answer: B

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10. In Bura-S symbol 'Bu' stands for:

A. 1-butene

B. 2-butene

C. n-butene

D. butadiene

Answer: D

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11. Plexiglass is

A. PAN

B. Poly (ethy1 acrylate)

C. Poly (methy1 methacrylate)

D. None of these

Answer: C

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12. Which of the following is thermosetting polymer?

A. Polythene

B. PVC

C. Teflon

D. Bakelite

Answer: D

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13. Which of the following is a semisynthetic polymer?

A. Silk

B. Wood

C. Rayon

D. Natural rubber

Answer: C

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14. The molecular formula of hexamethy1ene diammine adipate (monomer of nylon-66) is

A. $C_{12}H_{22}O_2N_2$

B. $C_{10}H_{26}O_5N_2$

C. $C_{12}H_{26}O_4N_2$

D. $C_{12}H_{24}O_3N_2$

Answer: D

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15. Which of the following rubber is not a polydiene?

A. Polysisoprene

B. Polychloroprene

C. Thiokol rubber

D. Nitrile rubber

Answer: C

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16. Discovery of $'nylon'$ is associated with

A. New York and Londan

B. New York and Longuet

C. Nyholm and London

D. None of these

Answer: A

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17. Which of the following is a synthetic polymer?

A. Rubber

B. Perspex

C. Protein

D. Cellulose

Answer: B

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18. Which of the following is fully fluorinated polymer?

A. Teflon

B. Neoprene

C. Thiokol

D. PVC

Answer: A

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

A. natural rubber

B. Teflon

C. nylon-6,6

D. Polystyrene

Answer: C

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20. Polymer used in bullet proof glass is:

A. $PMMA$

B. Lexan

C. Normex

D. Kevlar

Answer: B

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21. Natural polymer among the following is :

A. Nylon

B. Glyptal

C. Cellulose

D. Terylene

Answer: C

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22. Which of the following is a chain-growth polymer?

A. Starch

B. Nucleic acid

C. Polystyrene

D. Protein

Answer: C

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23. Which of the following is a biodegradalbe polymer?

A. Polythene

B. PVC

C. Bakelite

D. $PHBV$

Answer: D

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24. $'Rayon'$ is

A. Natural silk

B. Artificial silk

C. Natural plastic or rubber

D. Synthetic plastic

Answer: B

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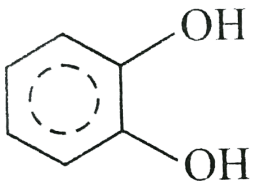
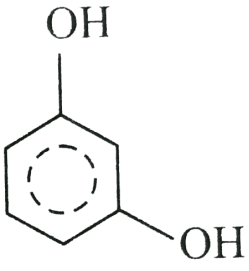
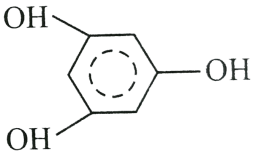
25. The monomeric units of terylene are glycol and which of the following

A. 

B. 

C. 

D. 

Answer: C

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26. Neoprene, a synthetic rubber contains which of the following element besides C and H

A. N

B. O

C. CI

D. F

Answer: C

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27. Nylon-6,6 is a

A. Natural polymer

B. Condensation polymer

C. Addition polymer

D. Substitution polymer

Answer: B

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28. A condensation polymer among the following polymer is

A. PVC

B. Teflon

C. Decron

D. Polystyrene

Answer: C

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29. Which of the following is not a natural polyhmer ?

A. Cellulose

B. Protein

C. PVC

D. Nucleic acid

Answer: C

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30. Which of the following is not correct regarding terylene?

A. Step-growth polymer

B. Synthetic fibre

C. Thermosetting plastic

D. It is also called decron

Answer: C

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31. Isoprene is a valuable

A. propene

B. Liquid fuel

C. Synthetic rubber

D. Petrol

Answer: C

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32. Teflon is a polymer of the monomer or Teflon is obtained by the polymerisation of

A. Tetrafluro ehtane

B. Tetrafluro Propene

C. Difluorodichloro ethane

D. Difluoro ethen

Answer: A

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33. Which of the following is used in valcuization of rubber ?

A. SF_6

B. CF_4

C. Cl_2F_2

D. C_2F_2

Answer: A

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34. Which of the following statements is not correct?

A. Caprolactam is the monomer of nylon-6

B. Terylene is a polyester polymer

C. Pheno formaldehyde resin is known as bakelite

D. The monomer of natural rubber is butadiene

Answer: D

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35. Which one of the following is an example of copolymer?

A. Teflon

B. Buna-S

C. PVC

D. Polypropylene

Answer: B

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36. Which is not a ploymer?

A. sucrose

B. Enzyme

C. Strach

D. Teflon

Answer: A

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37. Which one of the following is used to make ' non – stick ' cookware ?

A. PVC

B. polystyrene

C. Polyethylene terephtalate

D. Polytetrafluoroethylene

Answer: D

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38. Characteristic property of teflon is

A. 2000 poise viscosity

B. High surface tension

C. Non-inflammable and resistant to heat

D. Highly reactive

Answer: C

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39. Which of the following is not a polymer?

A. Silk

B. DNA

C. DDT

D. Starch

Answer: C

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40. Polymer is

A. Thermoplastic

B. Thermosetting

C. Both (a) and (b)

D. None of these

Answer: A

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41. Bakelites are

A. Rubber

B. Rayon

C. Resins

D. Plasticisers

Answer: C

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42. Which of the following is a step-growth polymer?

A. Polyisoprene

B. Polythene

C. Nylon

D. Polyacrylonitrile

Answer: C

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43. In the manufacture of polythene by the Ziegler process using ethylene, the temperature for proper polymerisation required is

A. Below $10^{\circ} C$

B. 10° to $50^{\circ} C$

C. 50° to $80^{\circ} C$

D. 80° to $140^{\circ} C$

Answer: C

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44. Styrene at room temperature is

A. Solid

B. Liquid

C. Gas

D. Colloidal solution

Answer: B

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45. The Ziegler-Natta catalysts are

A. Stereospecific

B. Non-metallic complexes

C. Gaseous catalysts

D. Universal in all polymersation reactions

Answer: A

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46. Melamine is

A. Gas

B. Yellow liquid

C. White crystalline solid

D. Colloidal solution

Answer: C

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47. Glyptal is

A. Viscose rayon

B. Nylon

C. Polystyrene

D. Alkyd resin

Answer: D

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48. Which of the following is not polyamide ?

A. Nylon-66

B. Protein

C. Glyptal

D. Nylon-6

Answer: C

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49. Which of the following is a copolymer formed by condensation polymerization?

A. Buna-Srubber

B. Buna-N

C. Neoprene

D. Terylene

Answer: D

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50. Among cellulose, poly viny chloride), nylon and nutural rubber, the polymer is which the intermolecular force of attraction is weakest is:

A. nylon

B. poly (vinyl chloride)

C. Cellulose

D. Natural rubber

Answer: D

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51. Which of the following statements is false

A. Artifical silk is derived from cellulose

B. Nylon-6,6 is an example of elastomer

C. The repeat unit in internal rubber is isoprene

D. Both starch and cellulose are polymers of glucose

Answer: B

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52. What 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

Answer: D

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53. Which of the following is synthetic rubber?

A. Buna-S

B. Neoprene

C. Both (a) and (b)

D. None of these

Answer: C

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54. Which of the following is not an example of natural polymer?

A. Wool

B. Silk

C. Leather

D. Nylon

Answer: D

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55. Acetate rayon is prepared from

A. Acetic acid

B. Glycerol

C. Strach

D. Cellulose

Answer: D

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56. Dacron is an example of:

A. Polyamide

B. Polypropylene

C. Polyurethane

D. Polyester

Answer: D

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57. Which of the following is thermosetting polymer?

A. Nylon-6

B. Nylon-6,6

C. Bakelite

D. SBR

Answer: C

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58. An example of a psychedelic agent is:

A. DNA

B. LSD

C. DDT

D. TNT

Answer: B

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59. Further growth of cancerous cells in the body is arrested by:

A. Physiotherapy

B. chemotherapy

C. electrotherapy

D. psychotherapy

Answer: B

 Watch Video Solution

60. The drug used for the treatment of throat infection is

A. quinine

B. piperazine

C. sulpha drug like sulphamlamide

D. isonictin hydrazide

Answer: C

Watch Video Solution

61. Which of the following is not tranquilizer?

A. Luminal

B. Seconal

C. Reserpine

D. Piperazine

Answer: D

Watch Video Solution

62. Which of the following antibiotics is used to cure typhoid?

A. Penicillin

B. Chloramphenicol

C. Tetracyline

D. Streptomycin

Answer: B

Watch Video Solution

63. The substance used in the birth control pills is

A. tetracycline

B. sulphadiazine

C. mestranol

D. Piperazine

Answer: C

Watch Video Solution

64. Which of the following is a local anaesthetic?

A. Diazepam

B. procaine

C. Mescaline

D. None of these

Answer: B

Watch Video Solution

65. Chloramine-T is a:

A. disinfectant

B. antiseptic

C. analgesic

D. antipyretic

Answer: B

Watch Video Solution

66. Morphine an alkaloid is:

A. anaesthetic

B. analgesic

C. antiseptic

D. antibiotic

Answer: B

Watch Video Solution

67. The formulation of Dettol contains:

A. chloroxylenol

B. terpineol

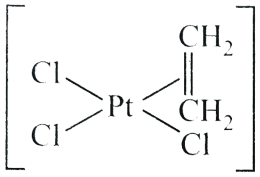
C. alcohol

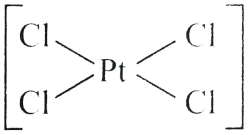
D. all of these

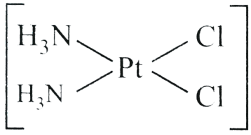
Answer: D

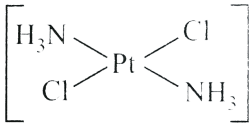
Watch Video Solution

68. Which of the following is considered to be an anticancer species?

A. 

B. 

C. 

D. 

Answer: C

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69. Antiseptics and disinfectants either kill of prevent growth of microorganism. Identify which of the following statements is not true :

A. Chlorine and Iodine are used as strong disinfectants

B. Dilute solutions of Boric acid and Hydrogen, peroxide are strong antiseptics

C. Disinfectants harm the living tissues

D. A 0.2% solution of phenol is an antiseptic while 1% solution acts as a disinfectant.

Answer: B

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70. A narrow spectrum antibiotic is active against

A. gram positive or gram negative bacteria

B. gram negative bacteria only

C. single organism or one disease

D. both gram positive and gram negative bacteria

Answer: A

Watch Video Solution

71. The first viral disease detected in human being was:

A. cold

B. influenza

C. small pox

D. yellow fever

Answer: D

Watch Video Solution

72. The insecticide, germicide, gammesane is a formulation for:

A. DDT

B. benzene hexachloride

C. hexachlorobenzene

D. chloral

Answer: B

View Text Solution

73. Which of the following is a bacteriostaci?

A. Penicillin

B. Erythromycin

C. Aminoglycoside

D. Ofloxacin

Answer: B

Watch Video Solution

74. The pair whose both species are used in acid medicinal preparation is:

A. $NaHCO_3$ and $Mg(OH)_2$

B. Na_2CO_3 and $Mg(OH)_2$

C. $Ca(HCO_3)_2$ and $Mg(OH)_2$

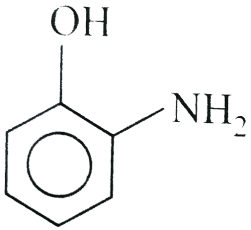
D. $Ca(OH)_2$ and $NaHCO_3$

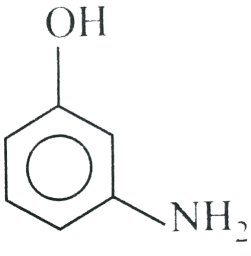
Answer: A

Watch Video Solution

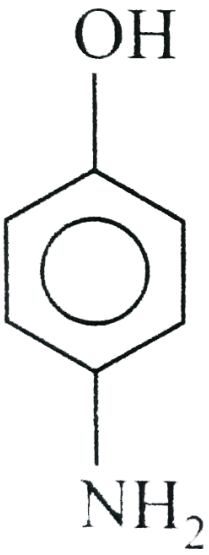
Chemistry In Everyday Life

1. Which of the following gives paracetamol on acetylation ?

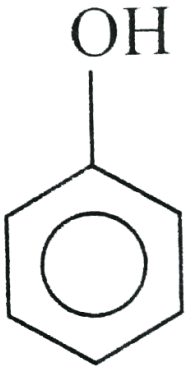
A. 

B. 

C.



D.



Answer: C

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2. The role of phosphate in detergent powder is to:

A. control pH level to the detergent water mixture

B. remove Ca^{2+} and Mg^{2+} inon from the water that causes the hardness of water

C. provide whiteness to the fabrics

D. from solid detergent as phosphate-less detergent are liquid in nature

Answer: B

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3. The cationic detergent that is used in hair conditioner is:

A. sodium dodecyl benzene suphonate

B. sodium lauryl sulphate

C. cetyl trimethyl ammonuim bromide

D. sodium steryl sulphate

Answer: C

Watch Video Solution

4. Which of the following is not a chromophore?

A. $-N-N-$

B. $-NO$

C. $-NO_2$

D. $-NH_2$

Answer: D

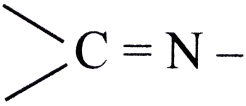
Watch Video Solution

5. Which of the following groups is not an auxochrome?

A. $-N(CH_3)_2$

B. $-OH$

C. $-OCH_3$

D. 

Answer: D

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6. Which of the following statements is not true?

A. The colour of a dye is the colour of the light it reflects

B. The colour of a dye is the colour of the light it absorbs

C. Blue is the complementary colour of yellow

D. $-CO_2H$ is an auxochrome.

Answer: B

Watch Video Solution

7. A substance which can act both as an analgesic and antipyretic is

A. quinine

B. Aspirin

C. Penicillin

D. insulin

Answer: B

Watch Video Solution

8. Which of the following is not a alkaloid ?

A. Reserpine

B. Morphine

C. Quinine

D. Phenylbutazone

Answer: D

Watch Video Solution

9. Chemically heroin is

A. Morphine diacetate

B. Morphine monoacetate

C. Morphine di benzoate

D. Morphine monobenzoate

Answer: A

Watch Video Solution

10. A medicine which promotes secretion of urine is called

A. Diuretic

B. Antipyretic

C. Analgesic

D. Sedative

Answer: A

Watch Video Solution

11. Which of the following is a non-narcotic analgesic ?

A. Morphine

B. Codeine

C. Heroin

D. aspirin

Answer: D

 Watch Video Solution

12. Which of the following analgesics in not habit-forming ?

A. Morphine

B. Aspirin

C. Codeine

D. Heroin

Answer: B

Watch Video Solution

13. Which of the following substance is added to soap to make it antiseptic

A. Iodine

B. $KMnO_4$

C. Bithional

D. Cl_2

Answer: C

Watch Video Solution

14. The anaesthetic which is administered by unjection is

A. diethyl ether

B. diphenyl ether

C. liquid nitrous oxide

D. morphine

Answer: D

Watch Video Solution

15. Which of the following is hypnotic drug?

A. Luminal

B. Salol

C. Piperazine

D. Novalgin

Answer: A

Watch Video Solution

16. Which of the following is/are antidepresent drug$/s$?

A. Cocaine

B. Benzedrine

C. Tofranil

D. All the three

Answer: D

Watch Video Solution

17. Penicillin was discovered by

A. Alexander Fleming

B. Ziegler and Natta

C. Walkman

D. Abraham

Answer: A

 Watch Video Solution

18. An antibiotic effective in treatment of pneumonia, bronchitis etc. is

A. Penicillin

B. Patulin

C. Chloromycetin

D. Chloramphenicol

Answer: C

Watch Video Solution

19. Salol can be used as

A. Antiseptic

B. Antipyretic

C. analgesic

D. Disinfectant

Answer: A

Watch Video Solution

20. 2,4-Dichlorphenoxyacetic acid is used as

A. Fungicide

B. Inseticide

C. Herbicide

D. Moth repellent

Answer: C

Watch Video Solution

21. Cholroamphenicol is an :

A. analgesic

B. anaesthetic

C. antibiotic

D. antiseptic

Answer: C

Watch Video Solution

22. Detergents are prepared by the action of H_2SO_4 followed by neutralization by starting with

A. Cholesterol

B. Laurylalchohol

C. Cyclohexanol

D. p-Nitrophenol

Answer: B

Watch Video Solution

23. Which of the following is known as broad spectrum antibiotic?

A. Streptomycin

B. Ampicillin

C. Chloramphenicol

D. Penicillin

Answer: C

Watch Video Solution

24. Structurally biodegradalbe detergent should contain

A. Normal alkyl chain

B. Branched alkyl chain

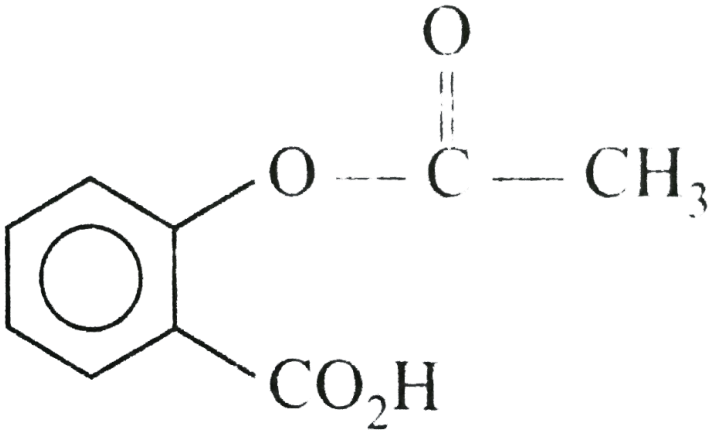
C. phenyl side chain

D. cyclohexyl side chain

Answer: C

Watch Video Solution

25. The following compound is used as



A. an anti-inflammatory compound

B. analgesic

C. hypnotic

D. antiseptic

Answer: B

Watch Video Solution

26. Glycerol is added to soap. It function:

A. as a filler

B. to increase leathering

C. to prevent rapid drying

D. to make soap granules

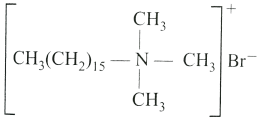
Answer: C

Watch Video Solution

27. Which of the following is an example of liquid dishwashing detergent?

A. $CH_3(CH_2)_{10} - CH_2OSC_3^- Na^+$

B. 

C. 

Answer: C

View Text Solution

28. Which of the following chemicals can be added for sweetening of food item at cooking temperature and does not provide calories?

A. sucrose

B. glucose

C. Aspartame

D. Sucralose

Answer: D

Watch Video Solution

29. Which of the following can possibly be used as analgesic without causing addiction and modification?

A. morphine

B. N-Acety -para-aminophenol

C. Diazepam

D. Tetrahydrocannabinol

Answer: B

Watch Video Solution

30. Substane which bring body temperature down are known as

A. Antipyretics

B. Analgesics

C. Antibiotics

D. Hypnotics

Answer: A

Watch Video Solution

31. 2-Acetoxybenzoic acid is called

A. Antiseptic

B. Aspirin

C. Antibiotic

D. Mordant dye

Answer: B

Watch Video Solution

32. Which of the following is used for inducing sleep?

A. Paracetamol

B. Chloroquine

C. Bithionol

D. Barbituric acid derivatives

Answer: D

Watch Video Solution

33. Which of the following is not ture?

A. Some disinfectants can be used as antiseptics

B. Sulphadiazine is a synthetic antibacterial

C. Aspirin is analgesic as well as antipyretic

D. Polystyrene is used to make non-stick cookware

Answer: D

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34. Phromones are chemicals

A. formed by germentation process of fungi

B. secreted by endocrine glands of man

C. secreated outside the body of insects

D. Plant growth hormones

Answer: C

Watch Video Solution

35. The drug given during hypertension is

A. Streptomycin

B. Chloroxylenol

C. Equanil

D. aspirin

Answer: C

Watch Video Solution

36. Streptomycin, a well-known antibiotic, is a dervative of

A. Peptides

B. Carbohydrates

C. Purines

D. Terpens

Answer: B

Watch Video Solution

37. In the following sets of compounds, the one which contains only medicinal compounds is:

A. Alizarin, phenactin, morphine

B. Aspirin, gentian violet, phenolphthalein

C. Boric acid, chloramphenicol, aspirin

D. 9-Oxdecanoic acid, boric acid, aspirin

Answer: C

Watch Video Solution

38. Oral contraceptive drugs contain

A. Mestranol

B. Norethindrone

C. Both (a) and (b)

D. None of these

Answer: C

39. 4-Ethoxyacetanilide is used as

A. Antipyretic

B. Analgesic

C. Antibiotic

D. Tranquilizer

Answer: A

Watch Video Solution

40. Antibiotic action of Dettol is due to to terpineol and

A. Chlorobenzene

B. Chloroxylenol

C. Chloroquine

D. Bithional

Answer: B

 Watch Video Solution

41. Drug which is used to reduce anxiety and brings calmness is known as

A. Tranquilizer

B. Diuretic

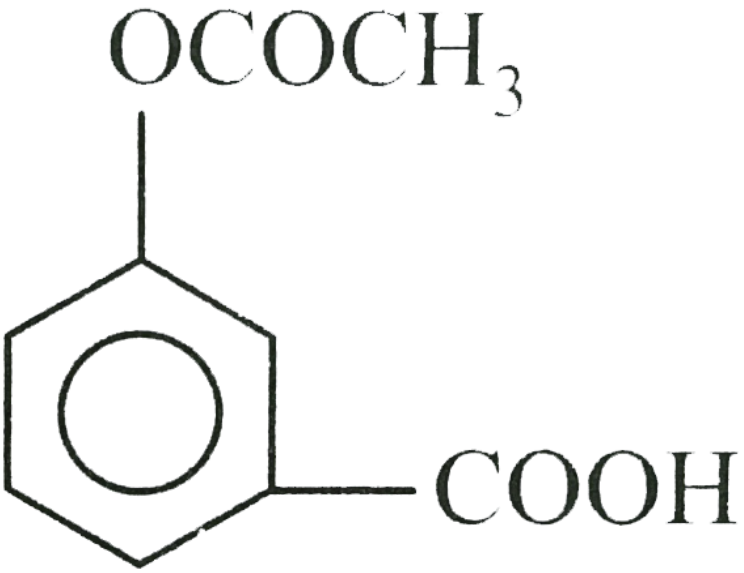
C. Analgesic

D. Antacids

Answer: A

Watch Video Solution

42. The compound is used as



A. antiseptic

B. antibiotic

C. Analgesic

D. pesticide

Answer: C

Watch Video Solution

43. Novalgin is a common

A. analgesic

B. antibiotic

C. hormone

D. all of these

Answer: A

Watch Video Solution

44. Which one of the following is used for the treatment of tuberculosis?

A. Para-aminosalicylic acid

B. Isoniazid (INH)

C. Both (a) and (b)

D. None of the above

Answer: C

Watch Video Solution

45. Which of the following is used in lowering the blood pressure?

A. Reserpine

B. Morphine

C. Cocaine

D. Diethyl ether

Answer: A

Watch Video Solution

46. Phenacetin is an example of

A. antibiotic

B. antimalarial

C. antipyretic

D. all of these

Answer: C

Watch Video Solution

47. The compound used as an antibiotic is

A. ampicillin

B. aspirin

C. suphuryl

D. chloroquine

Answer: A

Watch Video Solution

48. Aresnic drugs are mainly used in the treatment of

A. jaundice

B. typhoid

C. syphilis

D. cholera

Answer: C

Watch Video Solution

49. The ether which is widely used as anaesthetic is

A. diphenyl either

B. ethyl ether

C. methyl ether

D. di-tert-butyl ether

Answer: B

Watch Video Solution

50. Measles is a disease which belongs to the category of

A. bacterial disease

B. viral disease

C. veneral disease

D. protozoan disease

Answer: B

Watch Video Solution

51. An antibiotic contains nitro group attached to aromatic nucleus in its structure. It is

A. Penicillin

B. streptomycin

C. Tetracyline

D. Chloramphenicol

Answer: D

Watch Video Solution

52. Veronal, a barbiturate drug, is used as

A. antihistamine

B. sedative

C. antiseptic

D. antimalarial

Answer: B

Watch Video Solution

53. An example of nonionic detergent is

A. $CH_3(CH_2)_{16}COO(CH_2CH_2O)_nCH_2CH_2OH$

B. $C_{11}H_{23}CH_2OSO_3Na$ (sodium lauryl sulphate)

C. $CH_3^-(CH_2)_{11}SO_3^+Na$

D. Cetylrimethyl ammonium chloride

Answer: A

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54. Gibberellins and Cytokines are

A. rocket propellants

B. dyes

C. plant growth hormones

D. None of the above

Answer: C

Watch Video Solution

55. Bithional is used as

A. analgesic

B. antiseptic

C. disinfectant

D. Tranquilizer

Answer: B

56. Artificial sweetener used in soft drinks is:

A. aspartame

B. cellulose

C. fructose

D. glucose

Answer: A

Watch Video Solution

57. 4-chloro-3, 5-dimethyl phenol is called

A. Dettol

B. barbital

C. paracetamol

D. aspirin

Answer: A

Watch Video Solution

58. Which one of the following create great and high preformance in a missile?

A. microalloyed gold

B. cryogenic liquid

C. carbon fibres

D. butylated hydroxyl anisole

Answer: B

Watch Video Solution

59. Which of the following is not a broad spectrum anitbiotic?

A. tetracycline

B. Chloromycetin

C. Penicillin

D. None of these

Answer: C

Watch Video Solution

60. Antiseptic chloroxylenol is.....

A. 3-chloro-4,5-diemthylphenol

B. 4-chloro-3,5-dimethylphenol

C. 5-chloro-3,4-diemthylphenl

D. 4-chloro-2,5-dimethylphenol

Answer: B

Watch Video Solution

61. Which of the following colour is imparted by alizarin dye in the presence of Cr^{3+} ion?

View Text Solution

62. Choose the correct statement

A. Saccharin is 640 times sweeter the sugar

B. Alitame is 2000 times sweeter than sugar

C. Sucralose is 160 times sweeter than sugar

D. Aspartame is 550 times than sugar

Answer: B

Watch Video Solution

63. Which is the correct statement about birth control pills?

A. Contain estrogen only

B. Contain progesterone only

C. Contain a mixutre of estrogen and progesterone derivative

D. Progesterone enhances ovulation

Answer: C

Watch Video Solution

64. Which of the following enhances leathering property of soap?

A. Sodium carbonate

B. Sodium rosinate

C. Sodium stearate

D. Trisodium phosphate

Answer: B

Watch Video Solution

65. Assertion : A solution of sucrose in water is dextrorotatory. But on hydrolysis in the presence of a little hydrochloric acid, it becomes laevaorotatory.

Reason : Sucrose on hydrolysis gives unequal amounts of glucose and fructose. As a result of this, change in sign of rotation is observed.

A. If both the assertion and reason are true and the reason is the correct explanation of the assertion

B. If both assertion and reason are true but reason is not the correct explanation of the assertion.

C. If assertion is true but reason is false.

D. If assertion is false but reason is true.

Answer: C

Watch Video Solution

66. Assertion : Haemoglobin is an oxygen carrier.

Reason : Oxygen binds as O_2 to Fe of haemoglobin.

A. If both the assertion and reason are true and the reason is the correct explanation of the assertion

B. If both assertion and reason are true but reason is not the correct explanation of the assertion.

C. If assertion is true but reason is false.

D. If assertion is false but reason is true.

Answer: C

Watch Video Solution

67. Statement I: Carboxypeptidase is an exopeptidase

Statement II: It cleaves N-terminal bond.

A. If both the assertion and reason are true and the reason is the correct explanation of the assertion

B. If both assertion and reason are true but reason is not the correct explanation of the assertion.

C. If assertion is true but reason is false.

D. If assertion is false but reason is true.

Answer: C

Watch Video Solution

68. Assertion : Sucrose is a non − reducing sugar.

Reason : It has glycosidic linkage.

A. If both the assertion and reason are true and the reason is the correct explanation of the assertion

B. If both assertion and reason are true but reason is not the correct explanation of the assertion.

C. If assertion is true but reason is false.

D. If assertion is false but reason is true.

Answer: A

Watch Video Solution

69. Find the hydrolysis product of maltose

A. If both the assertion and reason are true and the reason is the correct explanation of the assertion

B. If both assertion and reason are true but reason is not the correct explanation of the assertion.

C. If assertion is true but reason is false.

D. If assertion is false but reason is true.

Answer: C

Watch Video Solution

70. Assertion : Glucose reacts with phenyl hydrazine and Fehling's solution but not with $NaHSO_3$.

Reason : $NaHSO_3$ cannot break the ring structure.

A. If both the assertion and reason are true and the reason is the correct explanation of the assertion

B. If both assertion and reason are true but reason is not the correct explanation of the

assertion.

C. If assertion is true but reason is false.

D. If assertion is false but reason is true.

Answer: A

Watch Video Solution

71. Assertion : Cellulose is not digested by human beings.

Reason : Cellulose is a polymer of $\alpha - D$ glucose.

A. If both the assertion and reason are true and the reason is the correct explanation of the assertion

B. If both assertion and reason are true but reason is not the correct explanation of the assertion.

C. If assertion is true but reason is false.

D. If assertion is false but reason is true.

Answer: C

Watch Video Solution

72. Assertion : Honey mainly contains invert sugar.

Reason : Bees supply the enzyme invertase.

A. If both the assertion and reason are true and the reason is the correct explanation of the assertion

B. If both assertion and reason are true but reason is not the correct explanation of the assertion.

C. If assertion is true but reason is false.

D. If assertion is false but reason is true.

Answer: A

Watch Video Solution

73. Assertion : Vitamin C cannot stored in our body.

Reason : Vitamin C is a water soluble vitamin.

A. If both the assertion and reason are true and the reason is the correct explanation of the assertion

B. If both assertion and reason are true but reason is not the correct explanation of the assertion.

C. If assertion is true but reason is false.

D. If assertion is false but reason is true.

Answer: A

Watch Video Solution

74. Assertion : Terylene is a condensation polymer.

Reason : Terylene is formed by ethylene glycol and terephthalic acid with elimination of water molecule.

A. If both the assertion and reason are true and the reason is the correct explanation of the assertion

B. If both assertion and reason are true but reason is not the correct explanation of the assertion.

C. If assertion is true but reason is false.

D. If assertion is false but reason is true.

Answer: A

Watch Video Solution

Section B Assertion Reasoning

1. Assertion : Cellulose acetate is a semisynthetic polymer.

Reason : Chemical name of cellulose acetate polymer is rayon.

A. If both the assertion and reason are true and the reason is the correct explanation of the assertion

B. If both assertion and reason are true but reason is not the correct explanation of the assertion.

C. If assertion is true but reason is false.

D. If assertion is false but reason is true.

Answer: B

Watch Video Solution

2. Assertion : Nylon -6 is a Synthetic polymer fomed by hydrolysis of Caprolactam.

Reason : Nylon -6 is used in tyre cords.

A. If both the assertion and reason are true and the reason is the correct explanation of the assertion

B. If both assertion and reason are true but reason is not the correct explanation of the assertion.

C. If assertion is true but reason is false.

D. If assertion is false but reason is true.

Answer: B

3. Assertion : Phenol formaldehyde polymer is a thermosetting polymer.

Reason : Bakelite can be remoulded again in desired shape by fusion.

A. If both the assertion and reason are true and the reason is the correct explanation of the assertion

B. If both assertion and reason are true but reason is not the correct explanation of the assertion.

C. If assertion is true but reason is false.

D. If assertion is false but reason is true.

Answer: C

Watch Video Solution

4. Assertion(A): The micelle formed by sodiumm stearate in water has -COO groups at the surface.

Reason(R): Surface tension of water is reduced by addition of stearate.

A. If both the assertion and reason are true and the reason is the correct explanation of the assertion

B. If both assertion and reason are true but reason is not the correct explanation of the assertion.

C. If assertion is true but reason is false.

D. If assertion is false but reason is true.

Answer: B

Watch Video Solution

5. Assertion : Detergent are preferred to soaps for washing purposes.

Reason : Detergents are non — biodegradable.

A. If both the assertion and reason are true and the reason is the correct explanation of the

assertion

B. If both assertion and reason are true but reason is not the correct explanation of the assertion.

C. If assertion is true but reason is false.

D. If assertion is false but reason is true.

Answer: B

 Watch Video Solution

6. Assertion : Combinations of progesterone and estrogen are used as antifertility drugs.

Reason : Progesterone and estrogen control the pregnancy.

A. If both the assertion and reason are true and the reason is the correct explanation of the assertion

B. If both assertion and reason are true but reason is not the correct explanation of the assertion.

C. If assertion is true but reason is false.

D. If assertion is false but reason is true.

Answer: A

Watch Video Solution

7. Assertion : Aspirin can cause ulcer in stomach when taken empty stomach.

Reason : Aspirin gets hydrolysed to salicyclic acid in stomach where pH is 2.

A. If both the assertion and reason are true and the reason is the correct explanation of the assertion

B. If both assertion and reason are true but reason is not the correct explanation of the assertion.

C. If assertion is true but reason is false.

D. If assertion is false but reason is true.

Answer: A

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8. Assertion : Certain narcotics are used as analgesics.

Reason : Narcotics lower the body temperature in high fever.

A. If both the assertion and reason are true and the reason is the correct explanation of the

assertion

B. If both assertion and reason are true but reason is not the correct explanation of the assertion.

C. If assertion is true but reason is false.

D. If assertion is false but reason is true.

Answer: C

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Aipmt Neet Questions

1. Which one of the following biomolecules is insoluble in water

A. $\alpha -$ keratin

B. haemoglobin

C. ribonuclease

D. adenine

Answer: A

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2. Subunits present in haemoglobin are:

A. 2

B. 3

C. 4

D. 5

Answer: C

3. The helical structure of protein is stabilised by:

A. peptide bonds

B. dipeptide bonds

C. $H-$ bond

D. ether bonds

Answer: C

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4. The pair in which both the species have iron is:

A. nitrogenase, cytochromes

B. carboxypeptidase, haemoglobin

C. haemocyanin, nitrogenase

D. haemoglobin, cytochromes

Answer: D

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5. The enzyme which hydrolyses triglycerides to fatty acid and glycerol is called:

A. maltase

B. lipase

C. zymase

D. pepsin

Answer: B

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6. The number of chiral carbons in $\beta - D(+) -$ glucose is:

A. 5

B. 6

C. 3

D. 4

Answer: D

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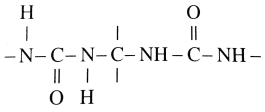
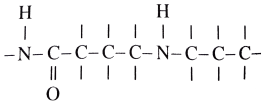
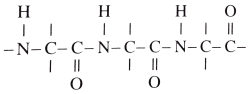
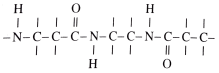
7. Which of the following structures represents the peptide chain?

A. 

B. 

C. 

D. 

Answer: C

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8. A sequence of how many nucleotides in messenger RNA makes a codon for amono acid ?

A. 3

B. 4

C. 1

D. 2

Answer: A

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9. The correct statement in respect of protein haemoglobin is that it

A. Functions as catalyst for biological reaction

B. Acts as an oxygen carrier in blood

C. Maintains sugar level

D. Forms antibodies and offers resistance to disease

Answer: B

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10. The hormone that helps in the conversion of glucose into glycogen is:

A. cortisone

B. bile salt

C. adrenaline

D. insulin

Answer: D

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11. Thymine is

A. $5-$ methyluracil

B. $4-$ methyluracil

C. $3-$ methyluracil

D. $1-$ methyluracil

Answer: A

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12. Cell membranes are mainly composed of :

A. phospholipids

B. fats

C. proteins

D. carbohydrates

Answer: A

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13. Which functional group participates in the disulphide bond formation in proteins?

A. Thioether

B. Thiol

C. Thiolactone

D. Thioester

Answer: A

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14. Methyl$-\alpha-D-$ glucoside and methyl $-\beta-D-$ glucoside are:

A. epimers

B. anomers

C. enantiomers

D. conformational diastereomers

Answer: B

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15. Which one of the following is a peptide hormone ?

A. Adrenaline

B. Thyroxine

C. Glucogen

D. Teastosterone

Answer: B

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16. During the process of digestion, the proteins present in food materials are hydrolysed to amino acids. The two enzymes involved in the process are:

$\xrightarrow{\text{Enzyme (A)}}$ Polypeptides

$\xrightarrow[\text{Enzyme (B)}}$ Amino acids

A. pepsin and trypsin

B. invertase and zymase

C. amylase and maltase

D. diastase and lipase

Answer: A

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17. The human body does not produce :

A. hormones

B. enzymes

C. DNA

D. vitamins

Answer: D

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18. The vitamin which is water soluble ?

A. vitamin E

B. vitamin D

C. vitamin K

D. vitamin B

Answer: C

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19. DNA and RNA are chiral molecule due to the presence of:

A. chiral bases

B. phosphate ester unit

C. $D-$ sugar component

D. $L-$ sugar component

Answer: C

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20. In DNA, the complementary bases are:

A. adenine and thymine, guanine and uracil

B. adenine and guanine, thymine and cytosine

C. uracil and adenine, cytosing and guanine

D. adenine and thymine, guanine and cytosine

Answer: D

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21. Which of the following hormones contains iodine ?

A. insulin

B. Thyroxine

C. testosterone

D. adrenaline

Answer: B

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22. The segment of DNA which acts as the instrumental manual for the syntesis of the proteing is :

A. nucleoside

B. nucleotide

C. ribose

D. gene

Answer: D

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23. Fructose reduces Tollens' reagent due to :

A. asymmetric carbons

B. primary alcoholic group

C. secondary alcoholic group

D. enolisation of fructose followed by conversion to aldehyde by base

Answer: D

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24. Which one of the following does not exhibit the phenomenon of mutarotation ?

A. $(+)$Sucrose

B. $(+)$ Lactose

C. $(+)$ Maltose

D. $(-)$ Fructose

Answer: A

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25. Find the hydrolysis product of maltose

A. $\alpha - D -$ glucose $+ \alpha - D -$ glucose

B. $\alpha - D -$ glucose $+ \alpha - D -$ fructose

C. $\alpha - D -$ glucose $+ alph - D -$ galactose

D. $\alpha - D -$ fructose $+ \alpha - D -$ galactose

Answer: A

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26. Which one of the following statements is not ture reagarding $(+)$ Lactose ?

A. $(+)$ Lactose, $C_{12}H_{22}O_{11}$ contains $8-OH$ groups

B. On hydrolysis $(+)$ Lactose gives equal amount of $D(+)$ glucose and $D(+)$ galactose

C. $(+)$ Lactose is a $\beta-$ glucose and a molecle of $D(+)$ galactose

D. $(+)$ Lactose is a reducing sugar and does not exhibit mutarotation

Answer: D

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27. Deficiency of vitamin B_1 causes the disease :

A. Cheilosis

B. Sterility

C. Convulsionos

D. Beri $-$ Beri

Answer: D

Watch Video Solution

28. Which one of the following sets of monosaccharides forms sucrose ?

A. $\beta - D -$ Glucopyranose and $\alpha - D -$ fructoranose

B. $\alpha - D -$ Glucopyranose and $\beta - D -$ fructopyranose

C. $\alpha - D -$ Galactopyranose and $\alpha - D -$ Glucopyranose

D. $\alpha - D -$ Glucopyranose and $\beta - D -$ fructofuranose

Answer: D

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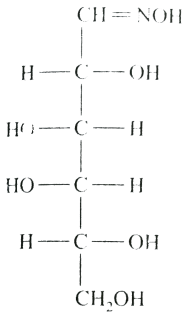
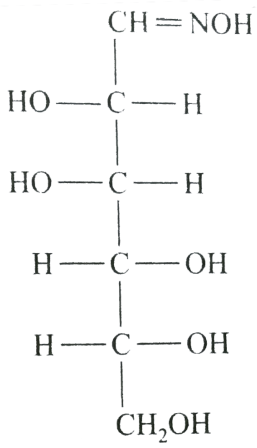
29. $D(+)$ glucose reacts with hydroxylamine and yields an oxime. The structure of the oxime would be :

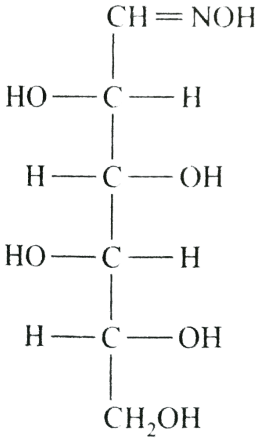
A.



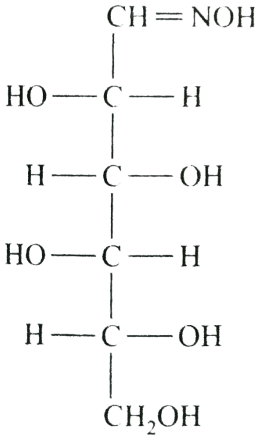
B.


CH=NOH
HO—C—H
HO—C—H
H—C—OH
H—C—OH
CH2OH

C.


CH=NOH
HO—C—H
H—C—OH
HO—C—H
H—C—OH
CH2OH

D.


CH=NOH
HO—C—H
H—C—OH
HO—C—H
H—C—OH
CH2OH

Answer: D

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30. Which of the following hormones is produced under the conditions of stress which stimulate glycogenolysis in the liver of human beings ?

A. Thyroxin

B. Insulin

C. adrenaline

D. Estradiol

Answer: C

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31. The function of Sodium pump is a biological process operating in each and every cell of all animals. Which of the following biologicaly important ions is also constant f this pump ?

A. K^+

B. Fe^{2+}

C. Ca^{2+}

D. Mg^{2+}

Answer: A

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32. In a protein molecule various amino acids are linked together by :

A. dative bond

B. $\alpha -$ glycoseidic bond

C. $\alpha -$ glycosidic bond

D. peptide bond

Answer: D

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33. Which one given below is a non – reducing sugar ?

A. Sucrose

B. Maltose

C. Lactose

D. Glucose

Answer: A

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34. The correct statement regarding RNA and DNA, respectively is :

A. The sugar component in RNA is $2' -$ dexyribose and the sugar component $iDNA$ is arabinose.

B. The sugar component in RNA is arabinose and the sugar component in DNA is $2' -$ dexyribose

C. The sugar component in RNA is ribose and the sugar component in DNA is $2' -$ dexyribose.

D. The sugar component in RNA is arabinose and the sugar component in DNA is ribose.

Answer: C

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35. Which one is chain growth polymer ?

A. Starch

B. Nucleic acid

C. Polystyrene

D. Protein

Answer: C

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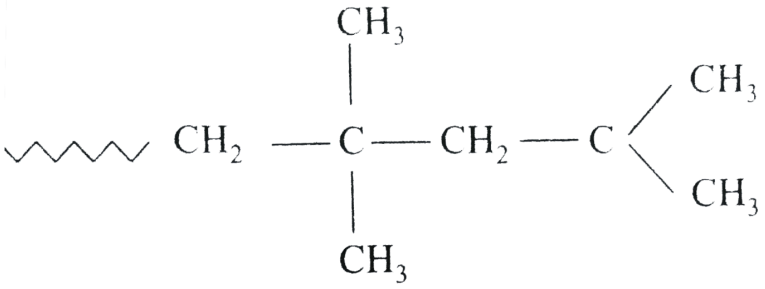
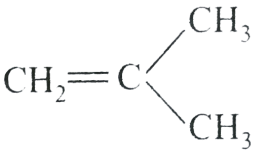
36. The monmer of polymer



A. $CH_3CH = CH_2$

B. 

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

D. $CH_3CH = CHCH_3$

Answer: B

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37. 

A. Thermosetting polymer

B. Homopolymer

C. Copolymer

D. Addition polymer

Answer: C

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38. Polymer obtained by condensation polymerzation is :

A. Polythene

B. tefloon

C. PVC

D. nylon $-6, 6$

Answer: D

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39. Which one of the following statements is not true ?

A. Natural rubber has the trans $-$ configuraction at every double bond

B. Buna$-S$ is a copolymer of butadiene and styrene

C. Natural rubber is a $1, 4-$ polymer of isoprene

D. In vulcanization, the formation of sulphur bridges between different chains make rubber harder and stronger

Answer: A

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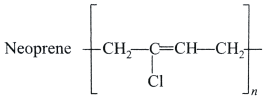
40. Structures of some common polymers are given.

Which one is not correctly presented ?

A. Nylon

$$-6,6-\left\{NH(CH_2)_6NHCO(CH_2)_4-CO-\right\}_n$$

B. Teflon$\left(-CF_2-CF_2-\right)_n$

C. Neoprene 

D. 

Answer: C

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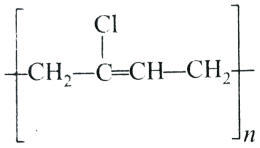
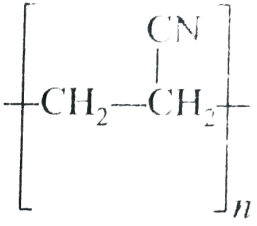
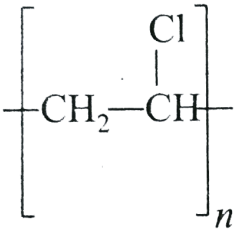
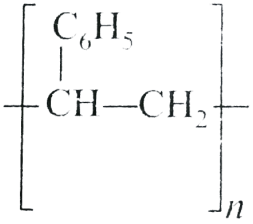
41. Which of the following neoprene polymer ?

A. 

B. 

C. 

D. 

Answer: A

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42. Of the following which one is classified as polyester polymer ?

A. Nylon $-6, 6$

B. Bakelite

C. Terylene

D. Melamine

Answer: C

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43. Which one fo the following is not a condensation polymer ?

A. Dacron

B. Neoprene

C. Melamine

D. Glyptal

Answer: B

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44. Which of the followinig statement is false ?

A. The repeat unit in natural rubber is isoprene

B. Both starch and cellulose are polymers of glucose

C. Artificial silk is derived from cellulose

D. Nylon $-6, 6$ is an example of elastomer

Answer: D

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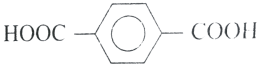
45. Which one of the following sets forms the biodegradable polymer ?

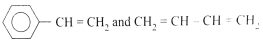
A. $CH_2 = CH - CH$ and

$CH_2 = CH - CH = CH_2$

B. $H_2N - CH_2 - COOH$ and

$H_2N - (CH_2)_5 - COOH$

C. $HO - CH_2 - CH_2 - OH$ and 

D. 

Answer: B

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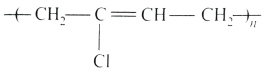
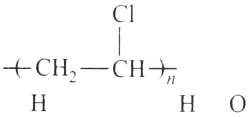
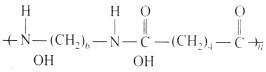
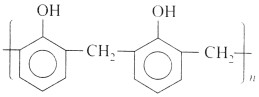
46. Which one of the following is an example of thermosetting polymer ?

A. 

B. 

C. 

D. 

Answer: D

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47. Which of the following organic compounds polymerizes to form the polyster 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 $HO-(C_6H_4)-OH$

Answer: C

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48. Biodegradable polymer which can be produced from glycine and aminocaproic acid.

A. buna$-N$

B. nylon $6, 6$

C. nylon$2-$ nylon6

D. PHBV

Answer: C

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49. Caprolactam is used for the manufacture of :

A. Trylene

B. Nylon $-6, 6$

C. Nylon -6

D. Teflon

Answer: C

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50. Natural rubber has :

A. Random $cis-$ and trans $-$ configuration

B. All $cis-$ configuration

C. All $trans-$ configuration

D. Alternate $cis-$ and trans $-$ configuration

Answer: B

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51. Aspirin is an acetylation product of

A. $m-$ hydroxybenzoic acid

B. $o-$ hydroxybenzoic acid

C. $p-$ dihydroxybenzene

D. $o-$ dihydroxybenzene

Answer: B

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52. Glycerol is not used in

A. explosive

B. cosmetics

C. soaps

D. matches

Answer: D

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53. Which azide is explosive ?

A. $Ba(N_3)_2$

B. NaN_3

C. KN_3

D. Mg_3N_2

Answer: A

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54. Methyl orange is the example of which type of dye

A. Acid dye

B. Mordant dye

C. Azo dye

D. Both (a) and (c)

Answer: D

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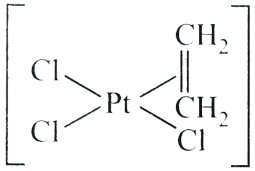
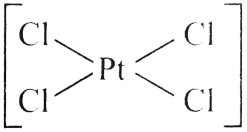
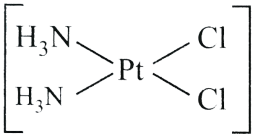
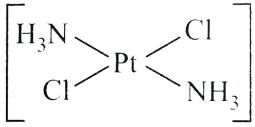
55. Which of the following is considered to be an anticancer species ?

A. 

B. 

C. 

D. 

Answer: C

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56. The ligands in anti $-$ cancer drug cisplatin are

A. NH_3, CI

B. NH_3, H_2O

C. CI, H_2O

D. NO, CI

Answer: A

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57. The compound used in enrichment of uranium for nuclear power plant is

A. U_3O_8

B. UF_6

C. $UO_2(NO_3)_2$

D. UCI_4

Answer: A

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58. Chain transfer reagent is

A. $\mathbb{C}I_4$

B. CH_4

C. O_2

D. H_2

Answer: A

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

A. Chloropheninamine

B. Equanil

C. Naproxen

D. Tetracycline

Answer: B

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

A. Promethazine

B. Valium

C. Naproxen

D. Mifipristone

Answer: B

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61. Which one of the following is employes as antihistamine ?

A. Omeprazole

B. Chloramphenicol

C. Diphyl hydramin

D. Norothindrone

Answer: C

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62. Cholroamphenicol is an :

A. antifertility drug

B. antibiotic broad spectrum

C. antiseptic and disinfectant

D. antihistaminic

Answer: B

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63. Antiseptics and disinfectants either kill or prevent growth of microorganism. Identify which of the following statements is not true :

A. Chlorine and iodine are used as strong disinfectants

B. Disinfectants harm the living tissues

C. Dilute solutions of boric acid and hydrogen peroxide are strong antiseptics

D. A 0.2% solution of phenol is an antiseptic while 1% solution acts as a disinfectant

Answer: C

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64. Bithional is generally added to the soaps as an additive to function as a / an

A. buffering agent

B. antiseptic

C. softener

D. dryer

Answer: B

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65. Which of the following of analgesic ?

A. Chloromycetin

B. Novalgin

C. Penicillin

D. Streptomycin

Answer: B

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66. Mixture of chloroxylenol and terpineol acts as :

A. antiseptic

B. antipyretic

C. antibiotic

D. analgesic

Answer: A

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67. Which of the following statements is not correct

A. Ovalbumin is a simple food reserve in egg – white

B. Blood proteins thrombin and fibrinogen are involved in blood clotting

C. Denaturation makes the proteins more active

D. Insulin maintains sugar level in the blood of a human body.

Answer: C

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68. The difference between amylose and amylopectin is

A. Amylopectin have $1 \rightarrow 4alopha -$ linkage and $1 \rightarrow 6\alpha -$ linkage

B. Amylose have $1 \rightarrow 4\alpha -$ linkage and $1 \rightarrow 6\beta -$ linkage

C. Amylopectin have $1 \rightarrow 4alph -$ linkage and $1 \rightarrow 6\beta -$ linkage

D. Amylose is made up of glucose and galactose

Answer: A

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Aiims Questions

1. Enzymes with two sites are called

A. apoenzyme

B. allosteric enzyme

C. holoenzyme

D. conjugate enzyme

Answer: B

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2. Subunits present in haemoglobin are:

A. 3

B. 4

C. 5

D. 2

Answer: C

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3. Which one of the followinig biomolecules is insoluble in water ?

A. α – Keratin

B. Haemoglobin

C. ribonuclease

D. Adenine

Answer: A

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4. Which one of the following statements is true for protein synthesis (translation) ?

A. Amino acids are directly recognized by $m-RNA$

B. The third base of the codon is less specific

C. Only one codon codes for an amino acid

D. Every $t - RNA$ molecule has more than one amino acid attachement

Answer: B

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5. The pair in which both the species have iron is:

A. nitrogenase, cytochromes

B. carboxypeptidase, haemoglobin

C. haemocyanin, nitrogenase

D. haemoglobin, cytochromes

Answer: D

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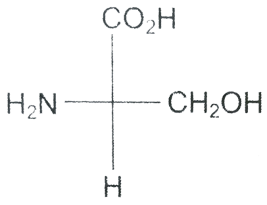
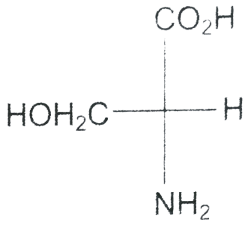
6. Among the following, $L-$ serine is

A. 

B. 

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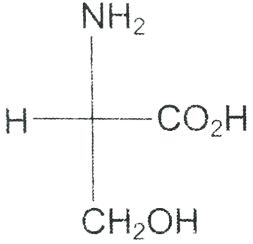
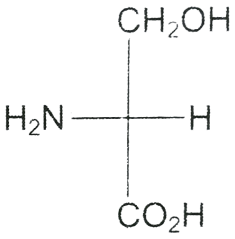


D.



Answer: C

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7. Thymine is

A. $5-$ methyluracil

B. $4-$ methyluracil

C. $3-$ methyluracil

D. $1-$ methyluracil

Answer: A

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8. Lysine is least soluble in water in the Ph range

A. 3 to 4

B. 5 to 6

C. 6 to 7

D. 8 to 9

Answer: D

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9. Find the hydrolysis product when a phosphodiester bond of nucleotide breaks.

A. $3-OH-$ deoxyribose $-5-P_4^{3-}$

B. $5-OH-$ deoxyribose $-3-P_4^{3-}$

C. $2-OH-$ deoxyribose $-2-P_4^{3-}$

D. $4-OH-$ deoxyribose $-2-P_4^{3-}$

Answer: A

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10. Find the hydrolysis product of maltose.

A. $\alpha - D -$ glucose $+ \alpha - D -$ glucose

B. $\alpha - D -$ glucose $+ \alpha - D -$ fructose

C. $\alpha - D -$ glucose $+ \alpha - D -$ galactose

D. $\alpha - D -$ fructose $+ \alpha - D -$ galactose

Answer: A

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11. Whichh of the following is a nono – reducing sugar ?

A. Sucrose

B. Maltose

C. Lactose

D. Mannose

Answer: A

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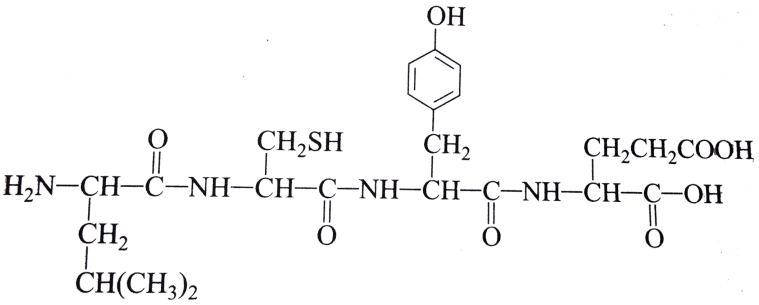
12. How many amino acids are present in the following polypeptide chain ?



A. 2

B. 4

C. 7

D. 9

Answer: B

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13. Which is incorrect statement ?

A. Amylopectin is insoluble in water

B. Fructose is reducing sugar

C. Cellulose is the polymer $B-D-$ Glucose

D. $D-$ ribose sugar present in DNA

Answer: D

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Assertion Reasoning Questions

1. Assertion : In the iodometric titration, starch is used as an indicator.

Reason : Starch is a polysaccharide.

A. If both the assertion and reacons are true and reason is a true explanation of the assertion.

B. If both the assertion and reasons are true but the reason is not the correct explanation of assertion.

C. If the assertion is ture but reason is false.

D. If assertion is false but reasion is true.

Answer: B

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2. Assertion : Alpha$(\alpha)-$ amino acids exist as internal salt in solution as they have amino and carboxylic acid groups in near vicinity.

Reason : H^+ ion given by carboyxylic group $(-COOH)$ is captured by amino group $(-NH_2)$ having lone pair of electrons.

A. If both the assertion and reacons are true and reason is a true explanation of the assertion.

B. If both the assertion and reasons are true but the reason is not the correct explanation of

assertion.

C. If the assertion is ture but reason is false.

D. If assertion is false but reasion is true.

Answer: A

3. Assertion : Million's test is a test for identification of proteins.

Reason : Million's reagent is a solution of mercurous nitrate in nitric acid containing little nitrous acid.

A. If both the assertion and reacons are true and reason is a true explanation of the assertion.

B. If both the assertion and reasons are true but the reason is not the correct explanation of assertion.

C. If the assertion is ture but reason is false.

D. If assertion is false but reasion is true.

Answer: B

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4. Assertion : $\beta -$ pleated sheet structure of protein shows maximum extension.

Reason : Intermolecular gydrogen bonding is present in them.

A. If both the assertion and reacons are true and reason is a true explanation of the assertion.

B. If both the assertion and reasons are true but the reason is not the correct explanation of assertion.

C. If the assertion is ture but reason is false.

D. If assertion is false but reasion is true.

Answer: B

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5. Assertion : Fructose is a reducing sugar.

Reason : It has a ketonic groups.

A. If both the assertion and reacons are true and reason is a true explanation of the assertion.

B. If both the assertion and reasons are true but the reason is not the correct explanation of assertion.

C. If the assertion is ture but reason is false.

D. If assertion is false but reasion is true.

Answer: B

6. Assertion : Glucose and fructose both reduce Schiff's reagent.

Reason : Both have free carbonyl group.

A. If both the assertion and reacons are true and reason is a true explanation of the assertion.

B. If both the assertion and reasons are true but the reason is not the correct explanation of assertion.

C. If the assertion is ture but reason is false.

D. If assertion is false but reasion is true.

Answer: D

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7. Assertion : Nucleotides are phosphate esters of nucleosides.

Reason : The various nucleotides in nucleic acids are linked either through purine or pyrimidine bases.

A. If both the assertion and reacons are true and reason is a true explanation of the assertion.

B. If both the assertion and reasons are true but the reason is not the correct explanation of assertion.

C. If the assertion is ture but reason is false.

D. If assertion is false but reasion is true.

Answer: C

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8. Assertion : Sulpha durgs contain sulphonamide group.

Reason : Salvarsan is a sulpha drug.

A. If both the assertion and reacons are true and reason is a true explanation of the assertion.

B. If both the assertion and reasons are true but the reason is not the correct explanation of assertion.

C. If the assertion is ture but reason is false.

D. If assertion is false but reasion is true.

Answer: C

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9. Which of the following is thermosetting polymer?

A. PVC

B. PVA

C. Bakelite

D. Perspex

Answer: C

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Polymers Assertion

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

A. Silk

B. Dacron

C. Nylon -66

D. All of these

Answer: D

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2. Which of the following is a biiodegradable polymer ?

A. Cellulose

B. Polythene

C. Polyvinyl chloride

D. Nylon -6

Answer: A

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3. Which of the following is not a natural polyhmer ?

A. Cellulose

B. Protein

C. PVC

D. Nucleic acid

Answer: C

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4. Teflon is a polymer of the monomer or Teflon is obtained by the polymerisation of

A. monofluoroethene

B. difluoroenthene

C. trifluoroethene

D. tetraflurorethene

Answer: D

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5. The compound required foor the formation of a thermosetting poluymer with methanol is

A. benzene

B. pheny amino

C. benzaldehyde

D. phenol

Answer: C

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6. Orlon is a polymer of

A. styrene

B. tetrafluoro ethylene

C. vinyl chloride

D. acrylonitrile

Answer: D

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7. Neoprene is a polymer of

A. propene

B. vinyl chloride

C. chlororprene

D. butadiene

Answer: C

Watch Video Solution

8. Which one of the following is used to make ' non – stick ' cookware ?

A. PVC

B. Polystyrene

C. Polyethylene terephthalate

D. Polytetrafluoroethylene

Answer: D

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9. Nylon -66 is

A. polyamide

B. polyester

C. Polystyrene

D. polyvinyl

Answer: A

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10. In elastomer, intermolecular forces are

A. nil

B. weak

C. strong

D. very strong

Answer: B

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11. Perlon is

A. rubber

B. nylon -6

C. terelene

D. oxlon

Answer: B

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12. Which of the following is not polyamide ?

A. nylon -66

B. Protein

C. glyptal

D. nylon -6

Answer: C

Watch Video Solution

13. Which of the following statement is correct regardiing the drawbacks of raw rubber ?

A. It is plastic in nature

B. It has little durability

C. It has large water — absorption capacity

D. All the these

Answer: D

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14. On controlled hydrolysis and condensation, R_3SiCl yields

A. $R_3Si - O - SiR_3$

B. $\left(-R_3Si-O-SiR_3-\right)_n$

C. R_3SiOH

D. 

Answer: A

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15. Among the following substituted silanes, the one which will give rise to cross linkes silicons polymer on hydrolysis is

A. R_2SiCl

B. R_4Si

C. $RSiCl_3$

D. R_2SiCl_2

Answer: C

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16. Arrange the following monomers in order of decreasing ability of undergo cationic polymerisation.

$(I)\ CH_2 = CH - C_6H_4(NO_2)$

$(II)\ CH_2 = CH - (C_6H_4(CH_3)$

$(III)\ CH_2 = CH - C_6H_4(OCH_3)$

A. $I > II > III$

B. $II > I > III$

C. $III > II > I$

D. $I > III > II$

Answer: C

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Assertion Reasoning

1. Assertion : Buta $-1,3-$ diene is the monomer of Gutta Percha.

Reason: Gutta Percha is formed through cationic addition polymerisation.

A. If both the assertion and reacons are true and reason is a true explanation of the assertion.

B. If both the assertion and reasons are true but the reason is not the correct explanation of

assertion.

C. If the assertion is ture but reason is false.

D. If assertion is false but reason is true.

Answer: D

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2. Assertion(A): The micelle formed by sodiumm stearate in water has -COO groups at the surface.

Reason(R): Surface tension of water is reduced by addition of stearate.

A. If both the assertion and reacons are true and reason is a true explanation of the assertion.

B. If both the assertion and reasons are true but the reason is not the correct explanation of assertion.

C. If the assertion is ture but reason is false.

D. If assertion is false but reasion is true.

Answer: B

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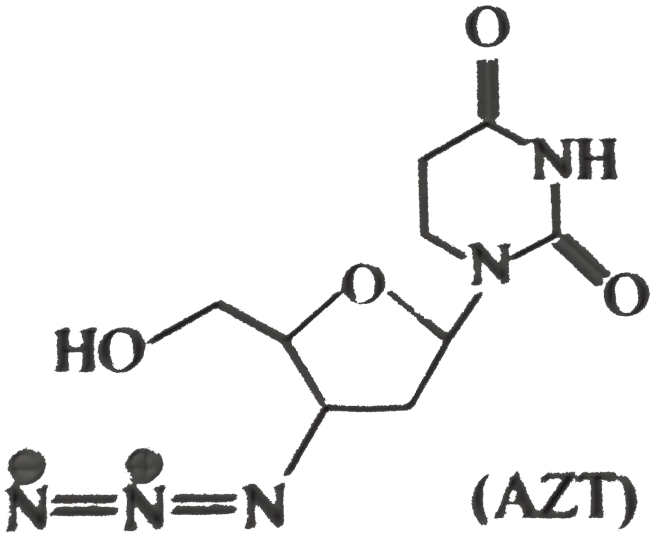
3. The structure of AZT (azidothymine) is given below. It is used to treat $AIDS$ patients. If fights and $AIDS$ infection but does not cure it.



(AZT)

Which of the following statements are correct about AZT ?

A. If both the assertion and reacons are true and reason is a true explanation of the assertion.

B. If both the assertion and reasons are true but the reason is not the correct explanation of assertion.

C. If the assertion is ture but reason is false.

D. If assertion is false but reasion is true.

Answer: A

4. Assertion : Anti histammin does not effect secration of acid in stomach :

Reason : Anti Histamine and antacids work on different receptors.

A. If both the assertion and reacons are true and reason is a true explanation of the assertion.

B. If both the assertion and reasons are true but the reason is not the correct explanation of assertion.

C. If the assertion is ture but reason is false.

D. If assertion is false but reasion is true.

Answer: A

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Chemistry In Everyday Life

1. Which azide is explosive ?

A. $Ba(N_3)_2$

B. NaN_3

C. KN_3

D. Mg_3N_2

Answer: A

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2. Methyl orange is the example of which type of dye

A. Acid dye

B. Mordant dye

C. Azo dye

D. Both (a) and (c)

Answer: D

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3. The ligands in anti $-$ cancer drug cisplatin are

A. NH_3, CI

B. NH_3, H_2O

C. Cl, H_2O

D. NO, CI

Answer: A

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4. The compound used in enrichment of uranium for nuclear power plant is

A. U_3O_8

B. UF_6

C. $UO_2(NO_3)_2$

D. UCI_4

Answer: A

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5. Chain transfer reagent is

A. CCl_4

B. CH_4

C. O_2

D. H_2

Answer: A

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6. Aspirin is an acetylation product of

A. $m-$ hydroxybenzoic acid

B. $o-$ hydroxybenzoic acid

C. $p-$ dihydroxybenzene

D. $o-$ dihydroxybenzene

Answer: B

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7. Glycerol is not used in

A. explosive

B. cosmetics

C. soaps

D. matches

Answer: D

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Section D Chapter End Test

1. Which of the following statements is not correct

A. All enzymes found in cell are invariably proteins which catalyse biological reactions

B. Enzymes act efficient at a moderate temperature and pH

C. Coenzymes increase the activities of enzymes

D. Enzymes arenot specific in their action on substrates

Answer: D

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2. The set of reactions in a cell which help in degradation of bigger molecules is called

A. metabolism

B. digestion

C. anabolism

D. catabolism

Answer: D

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3. Which of the following statement is not correct ?

A. Photosynthesis take place in the regions of plant cells called chloroplasts

B. Phototraphs synthesis sugars, amino acids, nucleic acids and other nutrients by using chemical energy

C. Chemorophs get chemical energy for cellular activities by consuming organic molecules produced by phototrophs and break them down to simple molecules by a process as digestion.

D. The pH in the stomach is basic.

Answer: D

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4. High density polyethylene (HDPE) can be prepared from ethylene by

A. Ziegler – Natta process

B. Heating with peroxides

C. Condensing in sealed tubes

D. Condensing with styrenes

Answer: A

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5. Which of the following is true about vitamins ?

A. Vitamins in the human body are needed in large amounts

B. Vitamins are secreted by ductless glands

C. Vitamin are synthesized by an organisms

D. Vitamins A, D, $E$and $K$are fat soluble whereas vitamins of the B groups and vitamin C are water soluble.

Answer: D

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6. Glucose and fructose can be disntiguished by

A. Tollen's reagent

B. Benedict solution

C. Bromine water

D. None of these

Answer: C

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7. $D-(+)-$ Glucose $\xrightarrow{5(CH_4CO)O} D-(+)$ glucose pentaacetate.

Which statement is true about glucose pentaacetate ?

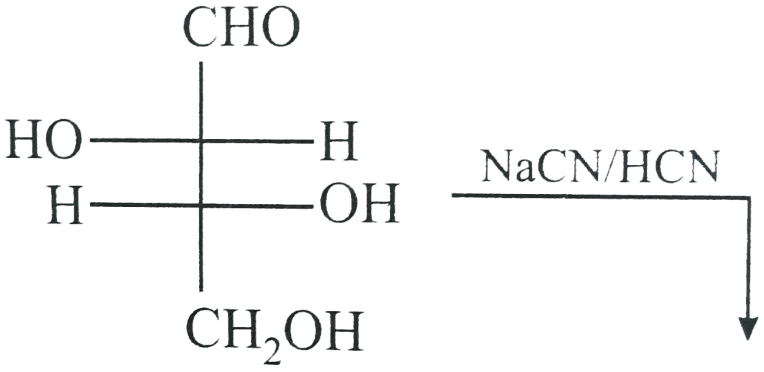
A. It will react with Tollen's reagent but not with reagent

B. It will react with Tollen's reagent but not with phenylhydrazine

C. It will react with both of the above mentioned reagents.

D. It will react netiher with phenylhydrazine nor with Tollen's reagent.

Answer: D



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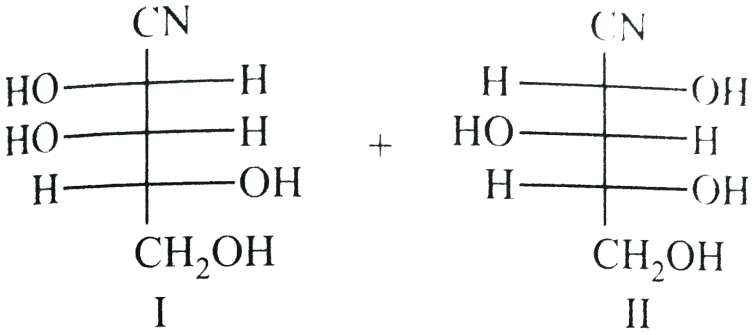

Compounds I and II may be grouped as

A. diastereomers

B. epimers

C. $C-2$ epimers

D. all of the three

Answer: D

View Text Solution

9. Which of the following statement is correct regardiing the drawbacks of raw rubber ?

A. It is plastic in nature

B. It has little durability

C. It has large water – absorption capacity

D. All of these

Answer: D

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10. What will happen when $D-(+)-$ glucose is treated with methanolic HCl followed by Tollen's reagent ?

A. A black ppt. will be formed

B. A red ppt. will be formed

C. A green colour will appear

D. No characteristic colour or ppt. will be formed.

Answer: D

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11. Which is true acidic character of hydroxyl groups of sugars and hydroxyl group of an alcohol?

A. The $OH's$ of sugars are more acidic than that of a typical alcohol.

B. The $OH's$ of sugars are less acidic than that of a typical alcohol.

C. Both have similar acidic character.

D. the OHs of sugars are neutral while that of an alcohol is acidic

Answer: A

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12. which of the following forms cationic micelles above certain concentration?

A. Sodium dodecyl suphate

B. Sodium acetate

C. Urea

D. Cetyl trimethyl ammonium bromide

Answer: B

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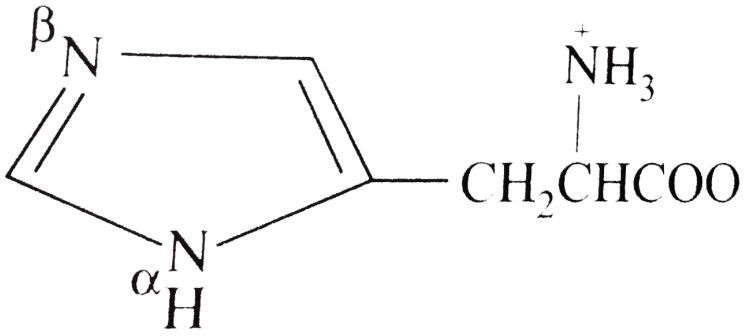
13. Which of the nitrogenof histidine is first protonated ?



A. α

B. β

C. Both

D. None

Answer: B

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14. An electric current is passed through an aqueous solution (buffered at $pH = 6.0$) of a alanine $(pl = 6.0)$ and arginine $(pI = 10.2)$. The two amino acids can be separated because

A. alanine migrates to anode, and arginine to cathode.

B. alanine migrates to cathode, and arginine to anode

C. alanine does not migrate, while argnine migrates to cathode.

D. alanine does not migrate, while arginine migrates to anode.

Answer: C

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

A. Naproxen

B. Tetracycline

C. Chlorpheniramine

D. Equanil

Answer: D

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16. The degree of cystallinity of which of the following is highest

A. Atactic polyvinylchloride

B. Isotactic polyvinylchloride

C. Syndiiotactic polyvinylchloride

D. All of these

Answer: C

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17. When condensation product of hexamethylenediamine and adipic acid is heated to $553K(80^\circ C)$ in an atmosphere of nitrogen for 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

Answer: B

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18. In the following series of reactions, compound Z can be

$$Z + NH_3 \xrightarrow{H_2\,(\,catayst\,)} CH_3CH(NH_3)COO^-$$

A. CH_3CHO

B. CH_3COCH_3

C. $CH_3COCOOH$

D. None of these

Answer: C

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19. Anomers are those stereoisomers which differ in the configuration at

A. C_1

B. C_2

C. Both

D. Glycosidic carbon

Answer: D

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20. In osazone formation, glucose reacts with three molecules of phenylhydrazine. Which statement is true regarding this ?

A. All the three molecules react in similar fashion

B. Two molecules react in similar manner, while the third reacts in different way

C. All the three molecules react in different ways

D. None of the above is true.

Answer: B

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21. The compound required for the formation in ' salon ' are :

A. $-NH_2$ and $-OR$

B. $-OH$ and $-COR$

C. $-NH_2$ and $-COOH$

D. $-OH$ and $-COOR$

Answer: D

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22. The compound required for the formation of a thermosetting polymer with methanol is

A. Benzene

B. Phenyl amine

C. Benzaldehyde

D. Phenol

Answer: D

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23. $\alpha -$ amino acids are

A. acidic due to $-COOH$ group and basic due to $-NH_2$ group

B. acidic due to $-NH_3^+$ group and basic due to $-COO^-$ group.

C. neither acidic nor basic

D. none is true.

Answer: B

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24. Identify the structures of products A and B in the following reaction

$$CH_3COCHOCOCH_3 \xrightarrow{periodicacid} A + B$$

A. $CH_3COOH + CH_3COCOOH$

B. $CH_3COCOOH + CH_3CHO$

C. $2CH_3COOH + HCOOH$

D. no reaction

Answer: C

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25. An organic compound consumes 4 moles of periodic acid to from following compounds per mole

of the starting compound $HCHO$, $3HCOOH$ and $CHOCOOH$. The organic compound is

A. glucose

B. Fructose is reducing sugar

C. gluconic acid

D. sorbitol

Answer: C

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26. The rol of phosphate in detergent water is to

A. Control pH level of the detergent water mixture.

B. Remove Ca^{2+} and Mg^{2+} ions from the water that causes the harness of water

C. Provide whiteness of the fabrics

D. From solid detergent as phosphate — less detergent are liquid in nature.

Answer: B

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27. An optically pure compound A, gave an $[\alpha]_D^{25} = +30^\circ$, while a mixture of A and its enantiomer B, gave $[\alpha]_D^{25} = +15^\circ$, . The ratio of A to B in the mixture is

A. 1 to 3

B. 3 to 1

C. 1 to 2

D. 2 to 1

Answer: B

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28. Assertion : Protein are made up of $\alpha -$ amino acids.

Reason : During denaturation, secondary and tertiary structures of proteins are destroyed.

A. Both assertion and reason correct and the reason is correct expansion to assertion.

B. Both assertion and reason are correct but reason is not the correct expansion of assertion.

C. Assertion is correct but reason is wrong

D. Assertion is incorrect but reason is correct.

Answer: C

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29. Assertion : In vulcanisation of rubber , sulphur cross links are introduced.

Reason : Vulcanisation is a free radical intiated chain reaction.

A. Both assertion and reason correct and the reason is correct expansion to assertion.

B. Both assertion and reason are correct but reason is not the correct expansion of

assertion.

C. Assertion is correct but reason is wrong

D. Assertion is incorrect but reason is correct.

Answer: B

30. Assertion : All enzymes are proteins but all proteins are not enzymes.

Reason : Keratin is an enzyme.

A. Both assertion and reason correct and the reason is correct expansion to assertion.

B. Both assertion and reason are correct but reason is not the correct expansion of assertion.

C. Assertion is correct but reason is wrong

D. Assertion is incorrect but reason is correct.

Answer: C

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