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1ST JAN 2026 TO TILL MARCH 2026 FINAL EXAM.  
WHATSAPP – 8056206308**

- Q1.** In these questions, a statement of assertion followed by a statement of reason is given. Choose the correct answer out of the following choices. s  
**Assertion:** Ortho substituted anilines are usually weaker bases than anilines.  
**Reason:** This is due to ortho effect.
- A** Assertion and reason both are correct statements and reason is correct explanation for assertion. **B** Assertion and reason both are correct statements but reason is not correct explanation for assertion.  
**C** Assertion is correct statement but reason is wrong statement. **D** Assertion is wrong statement but reason is correct statement.
- Q2.** For Questions two statements are given — one labelled as Assertion (A) and the other labelled as Reason (R). Select the correct answer to these questions from the codes (a), (b), (c) and (d) as given below. 1 Mark  
**Assertion (A):** Ammonolysis of alkyl halides is not a suitable method for the preparation of pure primary amines.  
**Reason (R):** Ammonolysis of alkyl halides yields mainly secondary amines.
- A** Both Assertion (A) and Reason (R) are true and Reason (R) is the correct explanation of the Assertion (A). **B** Both Assertion (A) and Reason (R) are true, but Reason (R) is not the correct explanation of the Assertion (A).  
**C** Assertion (A) is true, but Reason (R) is false. **D** Assertion (A) is false, but Reason (R) is true.
- Q3.**  $\Delta G$  and  $E^\circ_{\text{cell}}$  for a spontaneous reaction will be: 1 Mark  
**A** Positive, negative **B** Negative, negative **C** Negative, positive **D** Positive, positive
- Q4.** An electrochemical cell behaves like an electrolytic cell when: 1 Mark  
**A**  $E_{\text{cell}} = E_{\text{external}}$  **B**  $E_{\text{cell}} = 0$  **C**  $E_{\text{external}} > E_{\text{cell}}$  **D**  $E_{\text{external}} < E_{\text{cell}}$
- Q5.** In a lead storage battery: 1 Mark  
**A**  $\text{PbO}_2$  is reduced to  $\text{PbSO}_4$  at the cathode. **B** Pb is oxidised to  $\text{PbSO}_4$  at the anode.  
**C** Both electrodes are immersed in the same aqueous solution of  $\text{H}_2\text{SO}_4$ . **D** All the above are true.
- Q6.** Which of the following is correct for spontaneity of a cell? 1 Mark  
**A**  $\Delta G = -ve$   $E^0 = +ve$  **B**  $\Delta G = +ve$   $E^0 = 0$   
**C**  $\Delta G = -ve$   $E^0 = 0$  **D**  $\Delta G = +ve$   $E^0 = -ve$
- Q7.**  $\alpha - \text{D}(+)$  glucose and  $\beta - \text{D}(+)$  glucose are: 1 Mark  
**A** Geometrical isomers. **B** Enantiomers. **C** Anomers. **D** Optical isomers.
- Q8.** Two among the three components of DNA are -D-2-deoxyribose and a heterocyclic base. The third component is: 1 Mark  
**A** Adenine **B** Phosphoric acid **C** Sulphuric acid **D** Uracil
- Q9.** For Questions two statements are given — one labelled as Assertion (A) and the other labelled as Reason (R). Select the correct answer to these questions from the codes (a), (b), (c) and (d) as given below. 1 Mark  
**Assertion (A):**  $(\text{C}_2\text{H}_5)_2\text{NH}$  is more basic than  $(\text{C}_2\text{H}_5)_3\text{N}$  in aqueous solution.  
**Reason (R):** In  $(\text{C}_2\text{H}_5)_2\text{NH}$ , there is more steric hindrance and +I effect than  $(\text{C}_2\text{H}_5)_3\text{N}$ .
- A** Both Assertion (A) and Reason (R) are true and Reason (R) is the correct explanation of the Assertion (A). **B** Both Assertion (A) and Reason (R) are true, but Reason (R) is not the correct explanation of the Assertion (A).  
**C** Assertion (A) is true, but Reason (R) is false. **D** Assertion (A) is false, but Reason (R) is true.
- Q10.** Which of the following is a non-reducing sugar? 1 Mark  
**A** Sucrose. **B** Maltose. **C** Glucose. **D** Lactose.
- Q11.** The glycosidic linkage involved in linking the glucose units in amylase part of starch is: 1 Mark  
**A**  $\text{C}_1 - \text{C}_6$   $\alpha$  linkage **B**  $\text{C}_1 - \text{C}_6$   $\beta$  linkage  
**C**  $\text{C}_1 - \text{C}_4$   $\alpha$  linkage **D**  $\text{C}_1 - \text{C}_4$   $\beta$  linkage
- Q12.** Which of the following is a disaccharide? 1 Mark  
**A** Glucose. **B** Starch. **C** Cellulose. **D** Lactose.

**Q13.**An  $\alpha$ —helix is a structural feature of: **1 Mark**

- A** Sucrose. **B** Polypeptides. **C** Nucleotides. **D** Starch.

**Q14.**Zinc is coated over iron to prevent rusting of iron because: **1 Mark**

- A**  $E^\circ_{\text{Zn}^{2+}/\text{Zn}} = E^\circ_{\text{Fe}^{2+}/\text{Fe}}$  **B**  $E^\circ_{\text{Zn}^{2+}/\text{Zn}} < E^\circ_{\text{Fe}^{2+}/\text{Fe}}$   
**C**  $E^\circ_{\text{Zn}^{2+}/\text{Zn}} > E^\circ_{\text{Fe}^{2+}/\text{Fe}}$  **D** None of these.

**Q15.**In a Leclanche dry cell, the cathode is: **1 Mark**

- A** Zn container **B**  $\text{MnO}_2$  **C** Graphite rod **D**  $\text{NH}_4\text{Cl}$

**Q16.**Which of the following is least basic? **1 Mark**

- A**  $(\text{CH}_3)_2\text{NH}$  **B**  $\text{NH}_3$  **C**  **D**  $(\text{CH}_3)_3\text{N}$

**Q17.**Amino acids are: **1 Mark**

- A** Acidic. **B** Basic. **C** Amphoteric. **D** Neutral.

**Q18.**Which one is the complementary base of cytosine in one strand to that in other strand of DNA? **1 Mark**

- A** Adenine. **B** Guanine. **C** Thymine. **D** Uracil.

**Q19.**The colligative property used for the determination of molar mass of polymers and proteins is: **1 Mark**

- A** Osmotic pressure **B** Depression in freezing point  
**C** Relative lowering in vapour pressure **D** Elevation in boiling point

**Q20.**If the standard electrode potential of an electrode is greater than zero, then we can infer that its: **1 Mark**

- A** Reduced form is more stable compared to hydrogen gas. **B** Oxidised form is more stable compared to hydrogen gas.  
**C** Reduced and oxidised forms are equally stable. **D** Reduced form is less stable than the hydrogen gas.

**Q21.**Two statements are given- one labelled Assertion (A) and the other labelled Reason (R). Select the correct answer to these questions from the codes (a), (b), (c) and (d) as given below: **1 Mark**

**Assertion (A):** Sucrose is a non-reducing sugar.

**Reason (R):** Sucrose has glycosidic linkage.

- A** Both Assertion (A) and Reason (R) are correct statements, and Reason (R) is the correct explanation of the Assertion (A). **B** Both Assertion (A) and Reason (R) are correct statements, but Reason (R) is not the correct explanation of the Assertion (A).  
**C** Assertion (A) is correct, but Reason (R) is incorrect statement. **D** Assertion (A) is incorrect, but Reason (R) is correct statement.

**Q22.**The amount of electricity required to produce one mole of Zn from  $\text{ZnSO}_4$  solution will be: **1 Mark**

- A** 3F **B** 2F **C** 1F **D** 4F

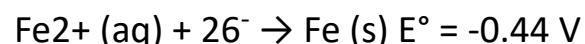
**Q23.**Kohlrausch given the following relation for strong electrolytes: **1 Mark**

$$\Lambda = \Lambda_0 - A\sqrt{C}$$

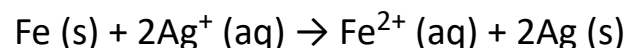
Which of the following equality holds?

- A**  $\Lambda = \Lambda_0$  as  $C \rightarrow \sqrt{A}$  **B**  $\Lambda = \Lambda_0$  as  $C \rightarrow \infty$   
**C**  $\Lambda = \Lambda_0$  as  $C \rightarrow 0$  **D**  $\Lambda = \Lambda_0$  as  $C \rightarrow 1$

**Q24.** $\text{Ag}^+(\text{aq}) + \text{e}^- \rightarrow \text{Ag}(\text{s})$   $E^\circ = +0.80\text{ V}$  **1 Mark**



Find the  $E^\circ_{\text{cell}}$  for:



- A** 1.6V **B** -1.16 V **C** 2.04 V **D** 1.24 V

**Q25.**Two statements are given- one labelled Assertion (A) and the other labelled Reason (R). Select the correct answer to these questions from the codes (a), (b), (c) and (d) as given below: **1 Mark**

**Assertion (A):** Sucrose is a non-reducing sugar.

**Reason (R):** Reducing groups of glucose and fructose are involved in glycosidic bond formation.

- A** Both Assertion (A) and Reason (R) are correct statements, and Reason (R) is the correct explanation of the Assertion (A). **B** Both Assertion (A) and Reason (R) are correct statements, but Reason (R) is not the correct explanation of the Assertion (A).  
**C** Assertion (A) is correct, but Reason (R) is incorrect statement. **D** Assertion (A) is incorrect, but Reason (R) is correct statement.

**Q26.**For an electrolyte undergoing association in a solvent, the  $v$  factor: **1 Mark**

- A** is always greater than one **B** has negative value  
**C** has zero value **D** is always less than one

**Q27.** **1 Mark**

For Questions number 15 to 18, two statements are given — one labelled as Assertion (A) and the other labelled as Reason (R). Select the correct answer to these questions from the codes (a), (b), (c) and (d) as given below.

**Assertion (A):**  $\text{-NH}_2$  group is o- and p-directing in electrophilic substitution reactions.

**Reason (R):** Aniline cannot undergo Friedel-Crafts reaction.

**A** Both Assertion (A) and Reason (R) are true and Reason (R) is the correct explanation of the Assertion (A).

**B** Both Assertion (A) and Reason (R) are true, but Reason (R) is not the correct explanation of the Assertion (A).

**C** Assertion (A) is true, but Reason (R) is false.

**D** Assertion (A) is false, but Reason (R) is true.

**Q28.** Which functional groups of glucose interact to form cyclic hemiacetal leading to pyranose structure?

**1 Mark**

**A** Aldehyde group and hydroxyl group at C - 4

**B** Aldehyde group and hydroxyl group at C - 5

**C** Ketone group and hydroxyl group at C - 4

**D** Ketone group and hydroxyl group at C - 5

**Q29.** Which parts of amino acids molecules are linked through hydrogen bonds in the secondary structure of proteins?

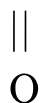
**1 Mark**

**A**  $\text{NH}_2$  group.

**B**  $\text{COOH}$  group.

**C**  $\text{—C—}$  and  $\text{—NH—}$  groups.

**D** None of the above.



**Q30.** In an electrochemical process, a salt bridge is used:

**1 Mark**

**A** As a reducing agent.

**B** As an oxidizing agent.

**C** To complete the circuit so that current can flow.

**D** None of these.

**Q31.** Peptide linkage is present in:

**1 Mark**

**A** Carbohydrates.

**B** Vitamins.

**C** Proteins.

**D** Rubber.

**Q32.** In fuel cell:

**1 Mark**

**A** Chemical energy is converted to electrical energy.

**B** Energy of combustion of fuel is converted to chemical energy.

**C** Energy of combustion of fuel is converted to electrical energy.

**D** Electrical energy is converted to chemical energy.

**Q33.** Out of the following, the strongest base in aqueous solution is:

**1 Mark**

**A** Methylamine.

**B** Dimethylamine.

**C** Trimethylamine.

**D** Aniline.

**Q34.** In the atmosphere of industrial smog, copper corrodes to form:

**1 Mark**

**A** Basic copper carbonate and sulphate.

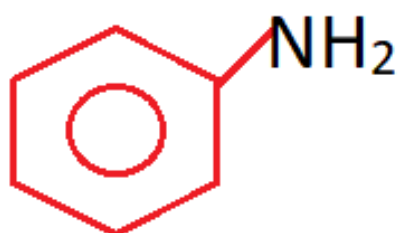
**B** Copper oxide.

**C** Copper sulphide.

**D** Copper nitrate.

**Q35.** The compound shown is a \_\_\_\_\_ amine.

**1 Mark**



**A**  $1^\circ$  aryl

**B**  $1^\circ$  arylalkyl

**C**  $2^\circ$  aryl

**D**  $2^\circ$  arylalkyl

**Q36.** The passage of electricity in the Daniell cell when Zn and Cu electrodes are connected:

**1 Mark**

**A** From Cu to Zn inside the cell.

**B** From Cu to Zn outside the cell.

**C** From Zn to Cu outside the cell.

**D** None of the above.

**Q37.**  $K_m$  of enzyme is:

**1 Mark**

**A** The substrate concentration at  $1/2$  of maximum velocity of enzyme action.

**B** The substrate concentration at maximum velocity of enzyme action.

**C** Half of maximum velocity of enzyme at unit substrate concentration at infinite velocity of enzyme action.

**D** Substrate concentration at infinite velocity of enzyme action.

**Q38.** Which of the following is not a disaccharide?

**1 Mark**

**A** Cane sugar

**B** Raffinose

**C** Lactose

**D** Maltose

**Q39.** The synthetic polymer which resembles natural rubber is:

**1 Mark**

**A** Neoprene

**B** Buna - S

**C** Nylon

**D** Rayon

**Q40.** The monomer of Buna-S are:

**1 Mark**

**A** Styrene and butadiene

**B** Isoprene and butadiene

**C** Vinyl chloride and Sulphur

**D** Butadiene.

**Q41.** The S in Buna- S refers to:

**1 Mark**

- A** Sulphur                      **B** Styrene                      **C** Sodium                      **D** just a trade name
- Q42.** Which of the following is/are true statement(s) for the preparation of Teflon? **1 Mark**
- A** It is produced by condensation polymerization.                      **B** Water acts as catalyst.  
**C** The monomer used is tetrafluoroethane.                      **D** The monomer is obtained from carbon tetrachloride.
- Q43.**  $E_{\text{Cell}}^{\ominus} = 1.1\text{V}$  for Daniell cell. Which of the following expressions are correct description of state of equilibrium in this cell? **1 Mark**
- A**  $1.1 = K_c$                       **B**  $\frac{2.303RT}{2F} \log K_c = 1.1$   
**C**  $\log K_c = \frac{2.2}{0.059}$                       **D**  $\log K_c = 1.1$
- Q44.** The bases that are common in both RNA and DNA are: **1 Mark**
- A** Adenine, guanine, thymine                      **B** Adenine, uracil, cytosine  
**C** Adenine, guanine, cytosine                      **D** Guanine, uracil, thymine
- Q45.** For two statements are given-one labelled Assertion (A) and the other labelled Reason (R). Select the correct answer to these questions from the codes (a), (b), (c) and (d) as given below. **1 Mark**
- Assertion:** Electrolysis of NaCl solution gives chlorine at anode instead of  $\text{O}_2$ .  
**Reason:** Formation of oxygen at anode requires overvoltage.
- A** Both A and R are true and R is the correct explanation of A.                      **B** Both A and R are true but R is not the correct explanation of A.  
**C** A is true but R is false.                      **D** A is false and R is also false.
- Q46.** The polymer used in making handles of cookers and frying pans is: **1 Mark**
- A** Bakelite                      **B** Nylon-2-nylon-6                      **C** Orlon                      **D** Polyvinyl chloride
- Q47.** For two statements are given-one labelled Assertion (A) and the other labelled Reason (R). Select the correct answer to these questions from the codes (a), (b), (c) and (d) as given below. **1 Mark**
- Assertion:** N, N-Diethylbenzene sulphonamide is insoluble in alkali.  
**Reason:** Sulphonyl group attached to nitrogen atom is strong electron withdrawing group.
- A** Both A and R are true and R is the correct explanation of A.                      **B** Both A and R are true but R is not the correct explanation of A.  
**C** A is true but R is false.                      **D** A is false and R is also false.
- Q48.** Amino acids are classified as acidic, basic or neutral depending upon the relative number of amino and carboxyl groups in their molecule. Which of the following are acidic? **1 Mark**
- A**  $(\text{CH}_3)_2\text{CH} - \underset{\text{NH}_2}{\text{CH}} - \text{COOH}$                       **B**  $\text{HOOC} - \text{CH}_2 - \text{CH}_2 - \underset{\text{NH}_2}{\text{CH}} - \text{COOH}$   
**C**  $\text{H}_2\text{N} - \text{CH}_2 - \text{CH}_2 - \text{CH}_2 - \text{COOH}$                       **D**  $\text{HOOC} - \text{CH}_2 - \underset{\text{NH}_2}{\text{CH}} - \text{COOH}$
- Q49.**  $E_{\text{Cell}}^{\ominus}$  for some half cell reactions are given below. On the basis of these mark the correct answer. **1 Mark**
1.  $\text{H}^+(\text{aq}) + \text{e}^- \longrightarrow \frac{1}{2}\text{H}_2(\text{g}); \quad E_{\text{Cell}}^{\ominus} = 0.00\text{V}$   
2.  $2\text{H}_2\text{O}(\text{l}) \longrightarrow \text{O}_2(\text{g}) + 4\text{H}^+(\text{aq}) + 4\text{e}^-; \quad E_{\text{Cell}}^0 = 1.23\text{V}$   
3.  $2\text{SO}_4^{2-}(\text{aq}) \longrightarrow \text{S}_2\text{O}_8^{2-}(\text{aq}) + 2\text{e}^-; \quad E_{\text{cell}}^0 = 1.96\text{V}$
- A** In dilute sulphuric acid solution, hydrogen will be reduced at cathode.                      **B** In concentrated sulphuric acid solution, water will be oxidised at anode.  
**C** In dilute sulphuric acid solution, water will be oxidised at anode.                      **D** In dilute sulphuric acid solution,  $\text{SO}_4^{2-}$  ion will be oxidised to tetrathionate ion at anode.
- Q50.** The correct order of basicity of amines in water is: **1 Mark**
- A**  $(\text{CH}_3)_2\text{NH} > (\text{CH}_3)_3\text{N} > \text{CH}_3\text{NH}_2$                       **B**  $\text{CH}_3\text{NH}_2 > (\text{CH}_3)_2\text{NH} > (\text{CH}_3)_3\text{N}$   
**C**  $(\text{CH}_3)_3\text{N} > (\text{CH}_3)_2\text{NH} > \text{CH}_3\text{NH}_2$                       **D**  $(\text{CH}_3)_3\text{N} > \text{CH}_3\text{NH}_2 > (\text{CH}_3)_2\text{NH}$
- Q51.** The difference between the electrode potentials of two electrodes when no current is drawn through the cell is called \_\_\_\_\_. **1 Mark**
- A** Cell potential.                      **B** Cell emf.                      **C** Potential difference.                      **D** Cell voltage.
- Q52.** For two statements are given-one labelled Assertion (A) and the other labelled Reason (R). Select the correct answer to these questions from the codes (a), (b), (c) and (d) as given below. **1 Mark**

**Assertion:** Most of the Synthetic polymers are not biodegradable.

**Reason:** Polymerisation process induces toxic character in organic molecules.

**A** Both A and R are true and R is the correct explanation of A.

**C** A is true but R is false.

**B** Both A and R are true but R is not the correct explanation of A.

**D** A is false and R is also false.

**Q53.** The products formed when a pinch of sugar is strongly heated for fifteen minutes in a test tube are: **1 Mark**

**A** Carbon and water vapour

**C** Carbon dioxide and water vapour

**B** Carbon, hydrogen and oxygen

**D** Carbon dioxide and hydrogen

**Q54.** In these questions, a statement of assertion followed by a statement of reason is given. Choose the correct answer out of the following choices. **1 Mark**

**Assertion:** The electrical resistance of any object decreases with increase in its length.

**Reason:** The electrical resistance of any object decreases with increase in its area of cross-section.

**A** Assertion and reason both are correct statements and reason is correct explanation for assertion.

**C** Assertion is correct statement but reason is wrong statement.

**B** Assertion and reason both are correct statements but reason is not correct explanation for assertion.

**D** Assertion is wrong statement but reason is correct statement.

**Q55.** A biological catalyst is essentially: **1 Mark**

**A** An enzyme

**B** A carbohydrate

**C** An amino acid

**D** A nitrogenous base

**Q56.** Starch is converted into maltose by an enzyme: **1 Mark**

**A** Maltase

**B** Zymase

**C** Diastase

**D** Invertase

**Q57.** Which of the following catalysts are used in the preparation of amines by the reduction of isonitriles: **1 Mark**

**A** Platinum

**B** Palladium

**C** Nickel

**D** All of the above

**Q58.** The condensation polymer among the following is: **1 Mark**

**A** Rubber

**B** Protein

**C** Poly vinyl chloride

**D** Polyethene

**Q59.** Which type of polymer is the Buna - S - rubber? **1 Mark**

**A** Homo polymer

**B** Condensation polymer

**C** Copolymer

**D** None of the above

**Q60.** Among the following which is not correct? **1 Mark**

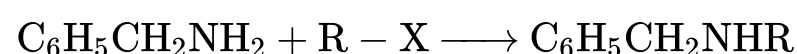
**A** p-methyl benzyl carbonyl is more stable than ethyl benzyl carbonyl.

**C** Cyclopentadienyl anion is more stable than cyclopentadienyl carbocation.

**B** Aniline is more basic than pyridine.

**D** K of Ethene 1-ol is more than that of propene 2-en-1-ol.

**Q61.** Benzylamine may be alkylated as shown in the following equation: **1 Mark**



Which of the following alkylhalides is best suited for this reaction through  $\text{S}_{\text{N}}1$  mechanism?

**A**  $\text{CH}_3\text{Br}$

**B**  $\text{C}_6\text{H}_5\text{Br}$

**C**  $\text{C}_6\text{H}_5\text{CH}_2\text{Br}$

**D**  $\text{C}_2\text{H}_5\text{Br}$

**Q62.** Fill in the blanks: **1 Mark**

The filament resistance of bulb is ....., to its resistance when it is not glowing.

**A** Greater.

**B** Lower.

**C** Equal.

**D** None of above.

**Q63.** Which of the following polymer is stored in the liver of animals? **1 Mark**

**A** Amylose.

**B** Cellulose.

**C** Amylopectin.

**D** Glycogen.

**Q64.** Acrylonitrile, butadiene and styrene are a kind of: **1 Mark**

**A** Addition polymer

**B** Co - polymer

**C** Homopolymer

**D** Thermosetting polymer

**Q65.** The reaction:  $[\text{C}_2\text{H}_5\text{Br} + \text{NH}_3]$  is in fact an example of: **1 Mark**

**A** Ammonolysis only

**C** Ammonolysis as well as nucleophilic substitution

**B** Nucleophilic substitution only

**D** None

**Q66.** What is the geometry of ammonia molecule? **1 Mark**

**A** Trigonal planar

**B** Square planar

**C** Linear

**D** Pyramidal

**Q67.** Decreasing order of basicity of the three isomers of nitro aniline is: **1 Mark**

**A** p - nitroaniline > o - nitroaniline > m - nitroaniline.

**C** m - nitroaniline > p - nitroaniline > o - nitroaniline.

**B** p - nitroaniline > m - nitroaniline > o - nitroaniline.

**D** m - nitroaniline > o - nitroaniline > p - nitroaniline.

**Q68.** Identify the statement about the basic nature of amines. **1 Mark**

**A** Alkylamines are weaker bases than ammonia.

**B** Arylamines are stronger bases than alkyl amines.

- C** Secondary aliphatic amines are stronger bases than primary aliphatic amines. **D** Tertiary aliphatic amines are weaker bases than arylamines. **1 Mark**
- Q69.** Which one of the following statements about starch is correct? **1 Mark**
- A** It occurs in the cell walls of plants. **B** It is a disaccharide.  
**C** It is present in roots and seeds of plants. **D** It gives a red orange precipitate on boiling with Fehlings solution.
- Q70.** Which of the following statements is true? **1 Mark**
- A** Electrolysis is one of the applications of chemical effects of current. **B** A metal wire shows chemical effect when a current is passed through it.  
**C** Like charges attract each other. **D** Charge flows only through negative charge carriers.
- Q71.** Which of the following has the maximum value of  $pK_b$ ? **1 Mark**
- A**  $(CH_3)_2NH$  **B**  $(CH_3CH_2)_2NH$  **C**  $C_6H_5 - NH - C_6H_5$  **D**  $C_6H_5 - NH - CH_3$
- Q72.** In these questions, a statement of assertion followed by a statement of reason is given. Choose the correct answer out of the following choices. **1 Mark**
- Assertion:** Valine is an essential amino acid.  
**Reason:** The lack of essential amino acids in the diet causes Kwashiorkor.
- A** Assertion and reason both are correct statements and reason is correct explanation for assertion. **B** Assertion and reason both are correct statements but reason is not correct explanation for assertion.  
**C** Assertion is correct statement but reason is wrong statement. **D** Assertion is wrong statement but reason is correct statement.
- Q73.** Carbonyl compound and primary Amine react together to form which type of compound? **1 Mark**
- A** Imines **B** Aldehyde **C** Amine **D** Quinones
- Q74.** Which of the vitamins given below is water soluble? **1 Mark**
- A** Vitamin C **B** Vitamin D **C** Vitamin E **D** Vitamin K
- Q75.** Which of the following compound is the strongest base? **1 Mark**
- A** Ammonia **B** Aniline **C** Methylamine **D** N - methyl aniline
- Q76.** Best method for preparing primary amines from alkyl halides without changing the number of carbon atoms in the chain is: **1 Mark**
- A** Hoffmann Bromamide reaction. **B** Gabriel phthalimide synthesis.  
**C** Sandmeyer reaction. **D** Reaction with  $NH_3$ .
- Q77.** Rubber is hardened for making tyres by: **1 Mark**
- A** Adding  $H_2$  **B** Adding carbon black **C** Saturating it **D** All of the above
- Q78.** Diastase enzyme converts \_\_\_\_\_ to \_\_\_\_\_. **1 Mark**
- A** Glucose to ethyl alcohol **B** Starch to maltose  
**C** Maltose to glucose **D** Sucrose to glucose
- Q79.** Which of the following is the most basic amine? **1 Mark**
- A**  $CH_3 - NH_2$  **B**  $ClCH_2NH_2$  **C**  $Cl_2CH - NH_2$  **D**  $CCl_3 - NH_2$
- Q80.** In these questions, a statement of assertion followed by a statement of reason is given. Choose the correct answer out of the following choices. **1 Mark**
- Assertion :** On increasing dilution, the specific conductance keep on increasing.  
**Reason :** On increasing dilution, degree of ionisation of weak electrolyte increases and molality of ions also increases.
- A** If both Assertion and Reason are correct and the Reason is a correct explanation of the Assertion. **B** If both Assertion and Reason are correct but Reason is not a correct explanation of the Assertion.  
**C** If the Assertion is correct but Reason is incorrect. **D** If both the Assertion and Reason are incorrect.
- Q81.** Negative terminal of a dry cell is formed by: **1 Mark**
- A** Zinc container. **B** Carbon rod. **C** Graphite rod. **D** Both A and B.
- Q82.** Which one of the following is the weakest base? **1 Mark**
- A**  $(C_2H_5)_3N$  **B**  $(C_2H_5)_2NH$  **C**  $C_2H_5NH_2$  **D**  $NH_3$
- Q83.** The secondary battery is such a battery: **1 Mark**
- A** Which cannot be recharged. **B** Which can be recharged.  
**C** Which can be reused after replacing its chemical. **D** Which is charged by primary cells.
- Q84.** In the rusting of iron, iron has been: **1 Mark**
- A** Oxidised **B** Reduced **C** Vaporised **D** Decomposed



**Q85.** A compound A has molecular formula  $C_7H_7NO$ . On treatment with  $Br_2$  and  $KOH$ , A gives an amine B which gives carbylamine test. B upon diazotization and coupling with phenol gives an azo dye. A can be: **1 Mark**

**A**  $C_6H_5CONHCOCH_3$

**B**  $C_6H_5CONH_2$

**C**  $C_6H_5NO_2$

**D** o, m or p -  $C_6H_4(NH_2)CHO$

**Q86.** Which of the following principles is not true for zymogen activation? **1 Mark**

**A** Liberation of activation molecules.

**B** Hydrolysis of large, inactive precursors.

**C** Splitting off an inhibitor precursors.

**D** Conformational change brings certain amino acid residues together.

**Q87.** Tertiary butyl amine is a: **1 Mark**

**A**  $1^\circ$  amine

**B**  $2^\circ$  amine

**C**  $3^\circ$  amine

**D** Quaternary salt

**Q88.** Which of the following polymer is condensation as well as cross-linked polymer? **1 Mark**

**A** Bakelite

**B** Nylon-6.6

**C** Nylon-2,,Nylon-6

**D** Dacron

**Q89.** For two statements are given-one labelled Assertion (A) and the other labelled Reason (R). Select the correct answer to these questions from the codes (a), (b), (c) and (d) as given below. **1 Mark**

**Assertion:** Polyamides are best used as fibres because of high tensile strength.

**Reason:** Strong intermolecular forces (like hydrogen bonding within polyamides) lead to close packing of chains and increase the crystalline character, hence provide high tensile strength to polymers.

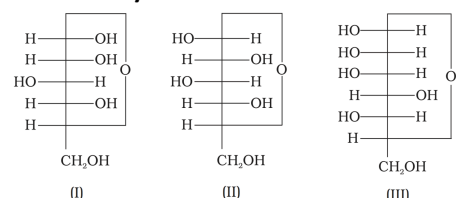
**A** Both A and R are true and R is the correct explanation of A.

**B** Both A and R are true but R is not the correct explanation of A.

**C** A is true but R is false.

**D** A is false and R is also false.

**Q90.** Three cyclic structures of monosaccharides are given below which of these are anomers. **1 Mark**



**A** I and II

**B** II and III

**C** I and III

**D** III is anomer of I and II

**Q91.** A polymer used in paints is: **1 Mark**

**A** Nomex

**B** Thiokol

**C** Saran

**D** Glyptal

**Q92.** Water is decomposed into hydrogen and oxygen by means of electric current by the process: **1 Mark**

**A** Electrolysis.

**B** Electric heating.

**C** Electroplating.

**D** None of these.

**Q93.** What are polymers? **1 Mark**

**A** Macromolecules composed of many repeated sub units.

**B** Monomers bonded together in a long chain.

**C** Both A and B.

**D** None of the above.

**Q94.** 1 faraday = \_\_\_\_\_. **1 Mark**

**A** 10000 C

**B** 95000 C

**C** 96.5 C

**D** 96500 C

**Q95.** \_\_\_\_\_ are the chemical messengers that are used by multicellular organisms for control and coordination. **1 Mark**

**A** Vitamins

**B** Minerals

**C** Antibiotics

**D** Hormones

**Q96.** Which is most basic among the following? **1 Mark**

**A**  $CH_3NH_2$

**B**  $CH_3CH_2NH_2$

**C**  $NH_3$

**D**  $(CH_3)_2CHNH_2$

**Q97.** the gas evolved when Methylamine reacts with nitrous acid is \_\_\_\_\_. **1 Mark**

**A**  $NH_3$

**B**  $N_2$

**C**  $H_2$

**D**  $C_2H_6$

**Q98.** Anode in the galvanic cell is: **1 Mark**

**A** Negative electrode.

**B** Positive electrode.

**C** Neutral electrode.

**D** None of the above.

**Q99.** The internal resistance of a lead acid battery can be reduced by: **1 Mark**

**A** Using strips of wood or celluloid as separators between electrodes.

**B** Using grids of hard lead-antimony alloy.

**C** Using a specific manner of assembly of electrodes with wood or celluloid separators in between.

**D** Both option A and B.

**Q100.** the EMF of a galvanic cell is determined by using a: **1 Mark**

**A** Voltmeter.

**B** 1potentiometer.

**C** Coulometer.

**D** Ammeter.