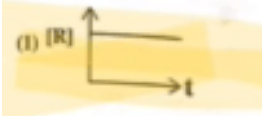
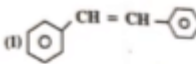
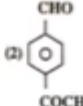
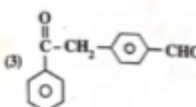
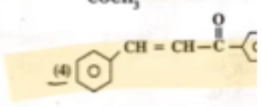
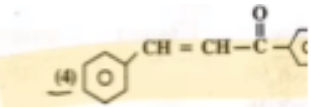


# KCET Chemistry Answer Key 2026 (Unofficial)

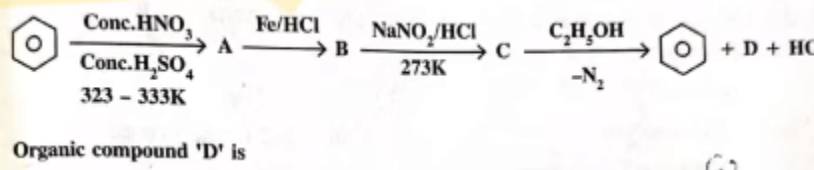
Questions	KCET 2026 Chemistry Answer Key
<p>1. During the electrolysis of acidified water, 16 g of O<sub>2</sub>, gas is formed a H<sub>2</sub>, gas liberated at cathode under STP conditions is</p>	<p>(1) 22.4 L</p>
<p>2. <math>\Lambda_m^\circ(\text{NH}_4\text{OH})</math> is equal to _____</p> <p>(1) <math>\Lambda_m^\circ(\text{NH}_4\text{OH}) + \Lambda_m^\circ(\text{NH}_4\text{Cl}) - \Lambda_m^\circ(\text{HCl})</math></p> <p>(2) <math>\Lambda_m^\circ(\text{NH}_4\text{Cl}) + \Lambda_m^\circ(\text{NaOH}) - \Lambda_m^\circ(\text{NaCl})</math></p> <p>(3) <math>\Lambda_m^\circ(\text{NH}_4\text{Cl}) + \Lambda_m^\circ(\text{NaCl}) - \Lambda_m^\circ(\text{NaOH})</math></p> <p>(4) <math>\Lambda_m^\circ(\text{NaOH}) + \Lambda_m^\circ(\text{NaCl}) - \Lambda_m^\circ(\text{NH}_4\text{Cl})</math></p>	<p>(2)</p> <p>(2) <math>\Lambda_m^\circ(\text{NH}_4\text{Cl}) + \Lambda_m^\circ(\text{NaOH}) - \Lambda_m^\circ(\text{NaCl})</math></p>
<p>3. Given below are the half-cell reactions:</p> <p><math>\text{Mn}^{2+} + 2e^- \rightarrow \text{Mn}</math> (<math>E^\circ = -1.18 \text{ V}</math>)</p> <p><math>2(\text{Mn}^{3+} + e^-) \rightarrow \text{Mn}^{2+}</math> (<math>E^\circ = +1.51 \text{ V}</math>)</p> <p>The <math>E^\circ_{\text{cell}}</math> for <math>3 \text{Mn}^{2+} \rightarrow \text{Mn} + 2\text{Mn}^{3+}</math> will be _____</p>	<p>(1) - 2.69 V, the reaction will not occur (Non-Spontaneous)</p>
<p>4. The conductivity of centimolar solution of KCl at 298 K is 0.021 Ohm<sup>-1</sup>cm<sup>-1</sup> and the resistance of the cell containing the solution at 298 K is 60 <math>\Omega</math>. The value of cell constant is-</p>	<p>(1) 1.26 cm<sup>-1</sup></p>
<p>5. Which one of the following graph is not applicable for a 1st order reaction (R → P)?</p>	<p>(1) </p>

<p>For a reaction having three steps, the overall rate constant is <math>K = \frac{k_1 k_2}{k_3}</math>. The <math>E_a</math>, <math>E_{a_1}</math>, <math>E_{a_2}</math> and <math>E_{a_3}</math> (activation energies stepwise) are 40, 50 and 60 kJ mol<sup>-1</sup> resp. Then the overall <math>E_a</math> (activation energy) of the reaction is _____</p> <p>6.</p>	(1) 30 kJ mol <sup>-1</sup>
<p>7. For a 1st order change R----P. the concentration of Reactant R changes from 0.1 M to in 40 minutes. The rate of reaction when the concentration of R is 0.01 M is</p>	(2) $3.47 \times 10^{-4}$ M min <sup>-1</sup>
<p>8. The activation energy for the reaction <math>X \rightarrow Y</math> is 150 kJ mol<sup>-1</sup>. The change in enthalpy above reaction is -135 kJ mol<sup>-1</sup>. Then the activation energy for <math>Y \rightarrow X</math> is</p>	(2) 285 kJ mol <sup>-1</sup>
<p>9. The intermediates in heteropolar reactions are  (1) Free radicals only  (2) Cations only  (3) Anions only  (4) Both anions and cations</p>	(4) Both anions and cations
<p>10. Statement I: Nitrogen in pyridine cannot be estimated by  Statement II: Nitrogen in pyridine changes to ammonium conc. <math>H_2SO_4</math>, in Kjeldahl's method.  Read the above given statements and choose the correct answer  (1) Statement I is true but Statement II is false  (2) Both Statement I and Statement II are false  (3) Both Statement I and Statement II are true  (4) Statement 1 is false but Statement II is true</p>	(1) Statement I is true but Statement II is false
<p>11. The number of chain isomers possible for the hydrocarbon</p>	(2) 3
<p>12. The compound with molecular formula <math>C_{30}H_{42}</math> is</p>	(3) Elcosane
<p>13. C-Cl bond in methyl chloride compared to C-Cl bond in chlorobenzene is  (1) Longer and stronger  (2) Shorter and stronger  (3) Shorter and weaker  (4) Longer and weaker</p>	(1) Longer and stronger

<p>14. The compound from which chlorobenzene cannot be prepared easily is</p> <p>(1) Aniline (2) Benzene (3) Phenol (4) Benzene diazonium chloride</p>	<p>(1) Aniline</p>										
<p>15. In <math>S_N1</math> reaction, the alkyl halide that on hydrolysis produces racemic mixture</p> <p>(1) Tertiary butyl bromide (2) 2-bromobutane (3) Isopropyl bromide (4) Methyl bromide</p>	<p>(2) 2-bromobutane</p>										
<p>16. Match the compounds of List-I with their effects in List-II.</p> <table border="0" style="width: 100%;"> <thead> <tr> <th style="text-align: left;">List-I</th> <th style="text-align: left;">List-II</th> </tr> </thead> <tbody> <tr> <td>(a) Chloramphenicol</td> <td>(i) Malaria</td> </tr> <tr> <td>(b) Thyroxine</td> <td>(ii) Anaesthetic</td> </tr> <tr> <td>(c) Chloroquine</td> <td>(iii) Goiter</td> </tr> <tr> <td>(d) Chloroform</td> <td>(iv) Typhoid fever</td> </tr> </tbody> </table>	List-I	List-II	(a) Chloramphenicol	(i) Malaria	(b) Thyroxine	(ii) Anaesthetic	(c) Chloroquine	(iii) Goiter	(d) Chloroform	(iv) Typhoid fever	<p>(2) a- iv, b- iii, c-i, d-ii</p>
List-I	List-II										
(a) Chloramphenicol	(i) Malaria										
(b) Thyroxine	(ii) Anaesthetic										
(c) Chloroquine	(iii) Goiter										
(d) Chloroform	(iv) Typhoid fever										
<p>17. <math>R-CH_2OH</math> is converted into <math>R-CHO</math> by reacting with</p> <p>(1) Alkaline <math>KMnO_4</math> (2) <math>LiAlH_4</math> (3) <math>Na/C_2H_5OH</math> (4) PCC (Pyridinium Chlorochromate)</p>	<p>(4) PCC (Pyridinium Chlorochromate)</p>										
<p>18. Glycerol is a trihydric alcohol. It contains</p> <p>(1) One primary, one secondary and one tertiary alcoholic groups (2) Two primary and one secondary alcoholic groups (3) Two secondary and one primary alcoholic groups (4) One primary and two tertiary alcoholic groups</p>	<p>(2) Two primary and one secondary alcoholic groups</p>										
<p>19. The correct IUPAC name of <math>CH_3 - \overset{\overset{CH_3}{ }}{C} - O - C_2H_5</math> is</p>	<p>(3) 2-ethoxy-2-methyl propane</p>										
<p>20. The organic compounds P, Q and R are</p> $C_7H_8 \xrightarrow[\text{ii) } H_2O_2/NaOH]{\text{i) } (BH_3)_2} P \xrightarrow[\text{anhydrous medium}]{CrO_2} Q \xrightarrow[\text{ii) } H_3O^+]{\text{i) } CH_3MgBr} R + Mg(OH)I$	<p>(2) <math>P = CH_3 - CH_2 - CH_2 - OH</math>   <math>Q = CH_3 - CH_2 -</math></p>										

<p>Match the reagents in List - I with products obtained from their carbonyl</p> <p>List - I</p> <p>List - II</p> <p>(a) <math>\text{NH}_2\text{OH}</math>                      (i) Cyanohydrin  (b) <math>\text{R-NH}_2</math>                            (ii) Oxime  (c) <math>\text{R-OH}</math>                                (iii) Schiff base  (d) <math>\text{H-C-N}</math>                              (iv) Acetal</p>	(1) a-ii, b-iii, c-iv, d-i
<p>The major product 'A' in the given reaction is</p> <p>Benzaldehyde <math>\xrightarrow[\text{OH}^- / 293\text{K}]{\text{Acetophenone}}</math> 'A' (Major product)</p> <p>(1) </p> <p>(2) </p> <p>(3) </p> <p>(4) </p>	
<p>23. Carboxylic acids are more acidic than phenols because</p> <p>(1) Formation of dimers  (2) Intermolecular hydrogen bonding  (3) More covalent nature  (4) More resonance stabilisation of their conjugate base</p>	(4) More resonance stabilisation of their conjugate base
<p>24. The compound that does not answer Iodoform test is</p> <p>(1) Ethanal  (2) Acetone  (3) Ethanoic acid  (4) Acetoplumone</p>	(3) Ethanoic acid
<p>25. Nitration of aniline in strong acidic medium gives significant amount of m-ni</p> <p>(1) In electrophilic substitution reaction, amino group is meta directing  (2) In strong acidic medium, aniline is present as anilinium ion.  (3) -NH<sub>2</sub> group always directs to meta position.  (4) m-nitroaniline has higher molar mass than o&amp;p nitroanilines.</p>	(2) In strong acidic medium, aniline is present as anilinium ion.
<p>26. Basic strength of alkylamines in aqueous phase is not decided by.</p> <p>(1) Inductive effect  (2) Solvation effect  (3) Steric hindrance  (4) Hyperconjugation effect</p>	(4) Hyperconjugation effect

27.



(3)  $\text{CH}_3\text{CHO}$

28. Statement I: Staggered conformation of ethane is more stable than the eclipsed conformation  
 Statement II: The torsional strain in staggered conformation is more.  
 Read the above statements and choose the correct answer from the options given below.

- (1) Both Statement I and Statement II are false  
 (2) Both Statement I and Statement II are true X  
 (3) Statement 1 is true but Statement II is false  
 (4) Statement I is false but Statement II is true

(3) Statement I is true but Statement II is false

29.

From the given information, select the suitable law of chemical comb

Cupric Carbonate	% of Cu	% of C	% of O
Natural Sample	51.35	9.74	38.91
Synthetic Sample	51.35	9.74	38.91

(3) Law of Definite Proportion

30.

Match List - I with List - II and select the correct option (Based on

List - I	List - II
(a) 2 moles of ethene	(i) 11.2 L volume at ST
(b) Molar mass is equal to 66 g	(ii) 56 g
(c) 1 g of $\text{H}_2$	(iii) $12.04 \times 10^{23}$ molecu
(d) 2 moles of water vapours	(iv) 1.5 mole of $\text{CO}_2$

(1) a-ii b- iv c- i d-iii

31.

Match List - I with List - II:

List - I (Element-Atomic number)	List - II (Position in periodic tabl
(a) Ra - 88	(i) 4 <sup>th</sup> period, 13 <sup>th</sup> group
(b) Ga - 31	(ii) 6 <sup>th</sup> period, 6 <sup>th</sup> group
(c) W - 74	(iii) 5 <sup>th</sup> period, 10 <sup>th</sup> group
(d) Pd - 46	(iv) 7 <sup>th</sup> period, 2 <sup>nd</sup> group

Choose the correct answer from the options given below.

(3) a-iv b- ii c- iii d-i

32. The types of hybrid orbitals of nitrogen in  $\text{NO}_2^+$ ,  $\text{NO}_3^-$ , and  $\text{NH}_4^+$  respectively are

(2)  $sp$ ,  $sp^2$  and  $sp^3$

<p>33.</p> <p>In which of the following option/options, the order of arrangement/variation of property indicated against it?</p> <p>(a) <math>\text{BF}_3 &gt; \text{NF}_3 &gt; \text{NH}_3</math> (Dipole moment)</p> <p>(b) <math>\text{HgCl}_2 &gt; \text{NH}_4^+ &gt; \text{SF}_6</math> (Bond angle)</p> <p>(c) <math>\text{NH}_3 &lt; \text{H}_2\text{O} &lt; \text{HF}</math> (Strength of intermolecular hydrogen bonding)</p> <p>(d) <math>\text{H} - \text{I} &gt; \text{H} - \text{Br} &gt; \text{H} - \text{Cl}</math> (Bond length)</p>	<p>(2) a only</p>
<p>34.</p> <p>With respect to resonance structures of <math>\text{CO}_3^{2-}</math> ion, which of the following is/are correct?</p> <p>(a) All C-O bonds in <math>\text{CO}_3^{2-}</math> are equivalent</p> <p>(b) There are three resonance structures possible for <math>\text{CO}_3^{2-}</math> ion</p> <p>(c) The position of carbon and oxygen should change in every resonance structure</p> <p>(d) The formal charge on carbon atom is -2</p>	<p>(2) a and b only</p>
<p>35.</p> <p>Given below are two statements.</p> <p>Statement I : In <math>\text{H}_2\text{O}_2</math>, each oxygen atom is assigned an oxidation number of <math>-\frac{1}{2}</math>.</p> <p>Statement II : Representation of <math>\text{HAuCl}_4</math> and <math>\text{MnO}_2</math> in stock notation are <math>\text{HAuCl}_4</math> and <math>\text{Mn(II)O}_2</math>, respectively</p> <p>Examine the above statements and choose the correct answer.</p>	<p>(3) Statement I is correct but Statement II is incorrect</p>
<p>36.</p> <p><math>a \text{C}_2\text{O}_4^{2-} + b \text{MnO}_4^- + c \text{H}^+ \longrightarrow x \text{Mn}^{2+} + y \text{H}_2\text{O} + z \text{CO}_2</math></p> <p>a and x respectively are</p>	<p>(1) 5, 2</p>
<p>37. Which of the following will not act as an oxidising agent?</p>	<p>(2) <math>\text{MoO}_3</math></p>

<p>38. The highest oxidation state of manganese in fluoride is +4 (MnF), but the highest oxidation state in oxides is +7 (Mn<sub>2</sub>O<sub>7</sub>), because</p> <p>(1) Fluorine is more electronegative than oxygen  (2) Fluorine possesses d-orbitals  (3) Fluorine stabilises lower oxidation state  (4) In covalent compounds, fluorine can form single bond only, while oxygen forms double bond</p>	<p>(4) In covalent compounds, fluorine can form single bond only, while oxygen forms double bond</p>										
<p>39. The calculated spin only magnetic moment of Cr<sup>2+</sup> ion is</p>	<p>(2) 4.90 BM</p>										
<p>40. Which of the following is the most stable complex?</p>	<p>(3) [Fe(C<sub>2</sub>O<sub>4</sub>)<sub>3</sub>]<sup>3-</sup></p>										
<p>41. How many ions per molecule are produced from the complex [Co(NH<sub>3</sub>)<sub>6</sub>]Cl<sub>2</sub>, in solution?</p>	<p>(3) 3</p>										
<p>42. Given below are two statements:  Statement I: The MC bond is formed by the donation of lone pair of electrons on the carbonyl carbon into a vacant d-orbital of the metal  Statement II: The M - Cabond is formed by the donation of a pair of electrons from a filled d-orbital of metal into the vacant antibonding * orbital of carbon monoxide.  In the light of the above statements, choose the correct answer from the options given below:</p>	<p>(1) Both Statement I and Statement II are correct</p>										
<p>43.</p> <p><b>Match List - I with List - II</b></p> <table border="0" style="width: 100%;"> <thead> <tr> <th style="text-align: left;">List - I (Complex)</th> <th style="text-align: left;">List - II (Geometry)</th> </tr> </thead> <tbody> <tr> <td>(a) [Co(NH<sub>3</sub>)<sub>6</sub>]<sup>3+</sup></td> <td>(i) Trigonal bipyramidal</td> </tr> <tr> <td>(b) [Ni Cl<sub>4</sub>]<sup>2-</sup></td> <td>(ii) Octahedral</td> </tr> <tr> <td>(c) [Ni(CN)<sub>4</sub>]<sup>2-</sup></td> <td>(iii) Tetrahedral</td> </tr> <tr> <td>(d) [Fe(CO)<sub>5</sub>]</td> <td>(iv) Square planar</td> </tr> </tbody> </table> <p><b>Choose the correct answer from the options given below.</b></p>	List - I (Complex)	List - II (Geometry)	(a) [Co(NH <sub>3</sub> ) <sub>6</sub> ] <sup>3+</sup>	(i) Trigonal bipyramidal	(b) [Ni Cl <sub>4</sub> ] <sup>2-</sup>	(ii) Octahedral	(c) [Ni(CN) <sub>4</sub> ] <sup>2-</sup>	(iii) Tetrahedral	(d) [Fe(CO) <sub>5</sub> ]	(iv) Square planar	<p>(1) a-ii, b-iii, c-iv, d-i</p>
List - I (Complex)	List - II (Geometry)										
(a) [Co(NH <sub>3</sub> ) <sub>6</sub> ] <sup>3+</sup>	(i) Trigonal bipyramidal										
(b) [Ni Cl <sub>4</sub> ] <sup>2-</sup>	(ii) Octahedral										
(c) [Ni(CN) <sub>4</sub> ] <sup>2-</sup>	(iii) Tetrahedral										
(d) [Fe(CO) <sub>5</sub> ]	(iv) Square planar										

44.

Match List - I with List - II

**List - I**  
(Vitamins)

- (a) B<sub>1</sub>  
(b) B<sub>2</sub>  
(c) B<sub>6</sub>  
(d) B<sub>12</sub>

**List - II**  
(Deficiency Diseases)

- (i) Convulsions  
(ii) RBC deficiency in haemoglobin  
(iii) Retarded growth  
(iv) Burning sensation of the skin

Choose the correct answer from the options given below.

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

45. Consider the following statements:

Statement I: All monosaccharides are reducing sugars.

Statement II: Sucrose can reduce ammoniacal silver nitrate solution.

Choose the correct answer from the options given below.

- (1) Both Statement I and Statement II are correct  
(2) Both Statement I and Statement II are incorrect  
(3) Statement I is correct but Statement II is incorrect  
(4) Statement I is incorrect but Statement II is correct

(3) Statement I is correct but Statement II is incorrect

46. Incorrect statement about α-amino acids of proteins among the following is

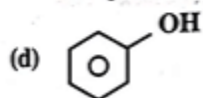
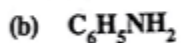
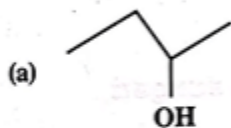
- (1) Methionine is an essential amino acid  
(2) Glycine doesn't exhibit enantiomerism  
(3) Glycylalanylglutamine has three amide linkages  
(4) Zwitterion of valine exhibits amphoteric behaviour

(3) Glycylalanylglutamine has three amide linkages

47.

Match List I with List II and select the correct options

**List - I**  
(Functional group)



**List - II**  
(Functional group reagent)

(i) Neutral ferric chloride test

(ii) Azo dye test

(iii) Ceric ammonium nitrate test

(iv) Tollen's reagent test

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

<p>48. When salt BA is treated with Conc.H<sub>2</sub>SO<sub>4</sub>, reddish brown gas is liberated. The aqueous solution of BA gives pale yellow precipitate with AgNO<sub>3</sub>, solution. Which of the following anion(A) is present in the salt BA?</p>	<p>(4) BR<sup>-</sup></p>
<p>49. Which of the following represents de Broglie equation?</p>	<p>(2) <math>\lambda = h/mv</math></p>
<p>50. Which of the following is the CORRECT statement about Y<sup>1</sup>?</p>	<p>(2) Probability density of the electron at that point</p>
<p>51. A: Entropy of a perfect crystalline solid at absolute zero approaches zero.          B: For spontaneity of a reaction, <math>TAS &gt; \Delta H</math>.          LOU Among the two statements given above, identify the correct answer from the options given below.          (1) Both 'A' and 'B' are true          (2) 'A' is true but 'B' is false          (3) Both 'A' and 'B' are false          (4) 'A' is false but 'B' is true</p>	<p>(1) Both 'A' and 'B' are true</p>
<p>52. Which of the following is a correct statement for a thermodynamic system?          (1) The internal energy changes in all processes          (2) Internal energy and entropy are state functions          (3) Work is a state function          (4) The work done in an adiabatic process is always zero</p>	<p>(2) Internal energy and entropy are state functions</p>
<p>53. A gas can be taken from A to B via two different paths ACB and ADB.</p>	<p>(4) 40 J</p>