



TALEEM CITY INSTITUTE

Ameenpur, Faisalabad

03126987979

Name:		Roll#:		Class:	Inter Part-II
Subject:	Chemistry-12	Date:		Time:	
Test Type #	Type 8 - Short Test (No Choice) - Marks=30				
Test Syllabus:	Unit-1,				

Q.1 Circle the Correct Answers.

(6x1=6)

- i Elements of Group IIA are called?
(A) Alkali metals (B) Alkaline earth metals (C) Coinage metals (D) Halogens
- ii Which of the following are alkaline earth metals?
(A) Be, Mg, Ca (B) Li, Na, K (C) Fe, CO, Ni (D) B, Al, Ga
- iii Number of elements in the first period of the periodic table is:
(A) 2 (B) 8 (C) 14 (D) 18
- iv Hydrogen resembles in properties with groups:
(A) I-A, V-A, VII-A elements (B) I-A, IV-A, VII-A elements (C) II-A, III-A, V-A elements
(D) I-A, II-A, elements
- v Keeping in view the size of atoms, which order is the correct one?
(A) Mg > Sr (B) Ba > Mg (C) Lu > Ce (D) Cl > I
- vi Mark the correct statement:
(A) Melting points of halogens decrease down the group.
(B) Melting points of halogens increase down the group.
(C) Melting points of halogens remain the same
(D) Melting points of halogens first increase and then decrease down the group.

Q.2 Write short answers of the following questions.

(8x2=16)

- i. Define Lanthanides and Actinides.
- ii. How does Ionization energy vary across a period?
- iii. Give reasons that hydration energy of Al^{3+} ions more than Mg^{2+} ions?
- iv. Why first ionization energy of Mg is greater than that of Na?
- v. M.P, B.P of short periods increases upto middle of the period and then decrease. Why?
- vi. Hydration energy of the following ions are in the order. Explain. $\text{Al}^{3+} > \text{Mg}^{2+} > \text{Na}^{+}$
- vii. How does lanthanide contraction control the atomic size of elements of 6th and 7th periods?
- viii. Give two dissimilarities of hydrogen with I-A group elements?

NOTE: Attempt the long question.

(4+4=8)

3(a) Write any two similarities and differences between hydrogen and halogens.

(b) Why hydrogen can be placed above halogen. Justify.

MCQs Ans Key.

Q:1 (B)

Q:2 (A)

Q:3 (A)

Q:4 (B)

Q:5 (B)

Q:6 (B)



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Test Type #	Type 8 - Short Test (No Choice) - Marks=30				
Test Syllabus:	Unit-2,				

Q.1 Circle the Correct Answers.

(6x1=6)

- Which one of the following elements is no alkali metal:
(A) Na (B) Sr (C) Cs (D) Fr
- Formula of epsom salt is:
(A) $\text{MgSO}_4 \cdot 7\text{H}_2\text{O}$ (B) MgSO_4 (C) MgCO_3 (D) $\text{CaMg}_3(\text{SiO}_3)_4$
- Element Cs (Cesium) shows resemblance with:
(A) Ca (B) Cr (C) both a , b (D) Fr
- Which one of the following is not an alkali metal?
(A) Francium (B) Caesium (C) Rubidium (D) Radium
- Chile saltpeter has the chemical formula?
(A) NaNO_3 (B) KNO_2 (C) $\text{Na}_2\text{B}_4\text{O}_7$ (D) $\text{Na}_2\text{CO}_3 \cdot \text{H}_2\text{O}$
- Which element is deposited at the cathode during the electrolysis of brine in diaphragm cell?
(A) H_2 (B) Ba (C) Ra (D) Rn

Q.2 Write short answers of the following questions.

(8x2=16)

- What are S-block elements?
- Why are the elements of group I-A called Alkali metals and That of group II-A alkaline earth metals?
- Write formulas of Borax and Chile saltpeter?
- Give two similar properties of Lithium and Magnesium?
- What happens when lithium hydroxide is heated to red heat.
- Write formulas of Beryl and Sylvite.
- Give the names and electronic configurations of s-block elements.
- What are the two major problems faced during the working of diaphragm cell?

NOTE: Attempt the long question.

(4+4=8)

3(a) Describe the two problems involved in the manufacture of caustic soda by Nelson cell and how these problems are solved.

(b) Describe commercial preparation of sodium hydroxide by diaphragm cell or Nelson cell.

MCQs Ans Key.

Q:1 (B)

Q:2 (A)

Q:3 (D)

Q:4 (D)

Q:5 (A)

Q:6 (A)



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Test Type #	Type 8 - Short Test (No Choice) - Marks=30				
Test Syllabus:	Unit-3,				

Q.1 Circle the Correct Answers.

(6x1=6)

- i The chief ore of aluminum is:
(A) Na_3AlF_6 (B) $Al_2O_3 \cdot 2H_2O$ (C) Al_2O_3 (D) $Al_2O_3 \cdot H_2O$
- ii The aqueous solution of Borax:
(A) Acidic (B) Alkaline (C) Amphoteric (D) Neutral
- iii Which is used in the leather industry?
(A) Borax (B) Boric acid (C) Boric oxide (D) Tetra Boric acid
- iv Boric acid cannot be used:
(A) As antiseptic in medicine (B) For washing eyes (C) In soda bottles
(D) For Enamels and Glazes
- v Aluminium oxide is:
(A) Acidic oxide (B) Basic oxide (C) Amphoteric oxide (D) None of these
- vi ____ metal is used in the Thermite process because of its reactivity:
(A) Iron (B) Copper (C) Aluminum (D) Zinc

Q.2 Write short answers of the following questions.

(8x2=16)

- i. How will you prepare Borax from colemanite and Boric acid?
- ii. Justify the solubility of borax changes with temperature.
- iii. What is action of heat on orthoboric acid, H_3BO_3 ?
- iv. What is the action of aqueous solution of borax on litmus?
- v. How Borax is used as water softening agent?
- vi. Give balanced equations to represent the following reactions: (a) Borax is heated with CaO (b) Al_2O_3 is heated with NaOH solution
- vii. How Aluminum reacts with H_2SO_4 .
- viii. Write two points to show peculiar behaviour of carbon.

NOTE: Attempt the long question.

(4+4=8)

3(a) How and under what conditions does aluminium react with oxygen, hydrogen and halogens and also write chemical reaction for each case?

(b) Explain (i) Borax Bead Test with its chemistry. (ii) Discuss effect of heat on boric acid

MCQs Ans Key.

Q:1 (B)

Q:2 (B)

Q:3 (A)

Q:4 (C)

Q:5 (C)

Q:6 (C)



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Test Type #	Type 8 - Short Test (No Choice) - Marks=30				
Test Syllabus:	Unit-4,				

Q.1 Circle the Correct Answers.

(6x1=6)

- i Laughing gas is chemically?
(A) NO (B) NO_2 (C) N_2O (D) N_4O_4
- ii What is %age of calcium phosphate in bone ash?
(A) 20 (B) 40 (C) 80 (D) 60
- iii Out of all the elements of Group V-A the highest ionization energy is possessed by:
(A) N (B) P (C) Sb (D) Bi
- iv In group V-A elements the most electronegative element is:
(A) Sb (B) N (C) P (D) As
- v Out of all the elements of group VI-A the highest melting and boiling points is shown by the element:
(A) Te (B) Se (C) S (D) Po
- vi SO_3 is not absorbed in water directly to form H_2SO_4 because:
(A) The reaction does not go to completion (B) The reaction is quite slow
(C) The reaction is exothermic (D) SO_3 is insoluble in water.

Q.2 Write short answers of the following questions.

(8x2=16)

- i. How does nitrogen differ from other members of its group?
- ii. How does dil. HNO_3 react with Cu and Mn?
- iii. Give the reaction of HNO_3 with carbon and sulphur?
- iv. Give the reactions of nitric acid with: (a) Arsenic (b) Antimony
- v. Which metals evolve hydrogen upon reaction with nitric acid? Illustrate alongwith chemical equations.
- vi. Complete and balance the chemical equation: $H_2S + NO \rightarrow$
- vii. Give molecular structure of red-phosphorus. How it is prepared from white phosphorus?
- viii. Complete and balance the following equations. (a) $KNO_3 + H_2SO_4 \rightarrow$ (b) $NO_2 + H_2SO_4 \rightarrow$

NOTE: Attempt the long question.

(4+4=8)

- 3(a) Describe eight points of similarities of oxygen and sulphur?
- (b) Discuss the various allotropes of phosphorus?

MCQs Ans Key.

Q:1 (C)

Q:2 (C)

Q:3 (A)

Q:4 (B)

Q:5 (D)

Q:6 (C)



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Test Type #	Type 8 - Short Test (No Choice) - Marks=30				
Test Syllabus:	Unit-5,				

Q.1 Circle the Correct Answers.

(6x1=6)

- i The radius of \bar{F} ion is:-
(A) 72 pm (B) 136 pm (C) 99 pm (D) 181 pm
- ii Which one is perchloric acid?
(A) HClO (B) HClO_2 (C) HClO_3 (D) HClO_4
- iii Melting points of halogens _____ the group.
(A) Decrease down (B) Increase down
(C) Remain same through out (D) First increase then decrease down
- iv The strongest acid in halogen acid in solution is:
(A) HF (B) HCl (C) HBr (D) HI
- v Which halogen will react spontaneously with Au(s) to produce Au^{3+} ?
(A) Br_2 (B) F_2 (C) I_2 (D) Cl_2
- vi The anhydride of HClO_4 is:
(A) ClO_3 (B) ClO_2 (C) Cl_2O_5 (D) Cl_2O_7

Q.2 Write short answers of the following questions.

(8x2=16)

- i. Why oxidizing power of F_2 is higher than other halogens?
- ii. Write four properties of hydrogen fluoride?
- iii. Discuss briefly, how activity of bleaching powder is measured?
- iv. Justify that Cl_2O_7 is the anhydride of per-chloric acid.
- v. Write any two methods of preparation of chlorine dioxide.
- vi. Write order of acid strength of oxyacids of chlorine.
- vii. Give reaction of bleaching powder with NH_3 and CO_2 .
- viii. Name the gas, which is used in bactericidal lamps.

NOTE: Attempt the long question.

(4+4=8)

3(a) Write a brief note on nomenclature of oxyacids of halogens.

(b) Describe preparation of bleaching powder by Beckmann's process. Also give chemical equation.

MCQs Ans Key.

Q:1 (B)

Q:2 (D)

Q:3 (B)

Q:4 (B)

Q:5 (B)

Q:6 (D)



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Test Type #	Type 8 - Short Test (No Choice) - Marks=30				
Test Syllabus:	Unit-6,				

Q.1 Circle the Correct Answers.

(6x1=6)

- i Oxidation state of Cu in $K_2[Cu(CN)_4]$ is:
(A) +4 (B) +3 (C) +2 (D) +6
- ii Maximum number of unpaired electrons are in cation:
(A) Ni^{2+} (B) Co^{2+} (C) Mn^{2+} (D) Fe^{2+}
- iii The colour of transition metal complexes:
(A) d-d transitions of electrons (B) Paramagnetic nature of transition elements
(C) Ionization (D) Loss of s-electrons
- iv The strength of binding energy of transition elements depends upon:
(A) Number of electron pairs (B) Number of unpaired electron (C) Number of neutrons
(D) Number of protons

Q.2 Write short answers of the following questions.

(8x2=16)

- i. Give four important characteristics of Transition elements?
- ii. What are interstitial compounds?
- iii. Why do the Transition elements have variable valency?
- iv. How do transition elements display colour?
- v. Write two properties of Transition metals?
- vi. What type of elements form substitutional alloys and why?
- vii. Why aluminium sheets are said to be corrosion free?
- viii. Why does damaged tin plated iron get rusted quickly?

NOTE: Attempt the long question.

(4+4=8)

- 3(a) Explain the following properties for transition element (i) Paramagnetism (ii) Colour
- (b) Describe the process of corrosion on the basis of electrochemical theory.

MCQs Ans Key.

Q:1 (A)

Q:2 (D)

Q:3 (A)

Q:4 (B)



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Test Type #	Type 8 - Short Test (No Choice) - Marks=30				
Test Syllabus:	Unit-7,				

Q.1 Circle the Correct Answers.

(6x1=6)

- i The chemist who synthesized urea from ammonium cyanate was:
(A) Berzelius (B) Kolbe (C) Wholer (D) Lavoisier
- ii CO_2H is a functional group
(A) Alkoxy (B) Carbonyl (C) Carboxyl (D) Hydroxyl
- iii Select from the following the one which is Alcohol:
(A) CH_3CH_2OH (B) CH_3OCH_3 (C) CH_3COOH (D) $CH_3.CH_2Br$
- iv The state of hybridization of "C" in ethane is:
(A) sp (B) sp^2 (C) dsp^2 (D) sp^3
- v The state of hybridization of carbon "C" atom in methane:
(A) sp (B) sp^2 (C) dsp^2 (D) sp^3
- vi Both CH_3COOH and $HCOOCH_3$ show isomerism:
(A) Position (B) Chain (C) Geometric (D) Functional group

Q.2 Write short answers of the following questions.

(8x2=16)

- i. Why vital force theory was rejected?
- ii. Define catenation.
- iii. What do you know about cracking of petroleum? Explain.
- iv. Define aromatic compounds, Give an example.
- v. Give the name of four compounds which are homocyclic but not Aromatic.
- vi. Define functional group Isomerism and of give an example:
- vii. 1-Butene does not show cis-trans isomerism but 2-butene does. Justify the statement.
- viii. Why compounds containing (C=C) bond show geometric isomerism?

NOTE: Attempt the long question.

(4+4=8)

3(a) Explain isomerism and give various types with examples.

(b) What is cracking of petroleum? Explain any two ways in which cracking is carried out?

MCQs Ans Key.

Q:1 (C)

Q:2 (C)

Q:3 (A)

Q:4 (D)

Q:5 (D)

Q:6 (D)



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Test Type #	Type 8 - Short Test (No Choice) - Marks=30				
Test Syllabus:	Unit-8,				

Q.1 Circle the Correct Answers.

(6x1=6)

- i The presence of a double bond in a compound is the sign of:
(A) Saturation (B) Un-saturation (C) Substitution (D) None of these
- ii The general formula for Alkene having one double bond is:
(A) C_nH_{2n+1} (B) C_nH_{2n} (C) C_nH_{2n-2} (D) C_nH_{2n+2}
- iii Which one is not property or use of mustard gas?
(A) Used in 1st world war (B) Powerful vesicant (C) High boiling liquid (D) High boiling gas
- iv Vinyl acetylene react with HCl to form:
(A) Polyacetylene (B) Benzene (C) Chloroprene (D) Divinylacetylene
- v Which gas is used for artificial ripening of fruits?
(A) Ethene (B) Methane (C) Propane (D) Ethyne
- vi The addition of unsymmetrical reagent to an unsymmetrical alkene is in accordance with the rule:
(A) Hund's rule (B) Markownikov's rule (C) Pauli's Exclusion Principle (D) Aufbau Principle

Q.2 Write short answers of the following questions.

(8x2=16)

- i. Write the structure of 2-methyl-2-butene.
- ii. Write down structural formula of vinyl chloride and vinyl cyanide.
- iii. Write down structural formulas of 3-Ethyl pentane and 4-Ethyl-3,4-dimethylheptane.
- iv. What is hydrogenolysis? Give an example.
- v. Compare the reactivities of alkanes and alkenes.
- vi. Give the mechanism of O_3 ozonolysis of Ethene?
- vii. Prepare Cis and Trans alkenes from Alkyne along with chemical equation.
- viii. How does Acetylene react with HBr?

NOTE: Attempt the long question.

(4+4=8)

3(a) Prepare Ethane from Kolbe's Electrolytic method, write down its mechanism?

(b) Write the chemical reaction of ethene with the following. (i) HCl (ii) Br_2 (iii) O_3 (iv) HOX

MCQs Ans Key.

Q:1 (B)

Q:2 (B)

Q:3 (D)

Q:4 (C)

Q:5 (D)

Q:6 (B)



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Test Syllabus:	Unit-9,				

Q.1 Circle the Correct Answers.

(6x1=6)

- i Which of the following is Ortho and Para directing group?
(A) $-I$ (B) $-CHO(C)$ (C) $-COOH(D)$ (D) $-NR_3$
- ii Which catalyst is used in Friedel Crafts Reactions:
(A) $AlCl_3$ (B) $BeCl_2$ (C) $NaCl$ (D) HNO_3
- iii Benzene cannot undergo:
(A) Substitution Reactions (B) Addition Reactions (C) Oxidation Reactions
(D) Elimination Reactions
- iv Which of the following acid can be used as a catalyst in Friedel Craft's reactions?
(A) $AlCl_3$ (B) HNO_3 (C) $BeCl_2$ (D) $NaCl$
- v The electrophile in aromatic sulphonation is:
(A) H_2SO_4 (B) HSO_4^- (C) SO_3 (D) SO_3^+
- vi The conversion of n-hexane into benzene by heating in the presence of Pt is called:
(A) Isomerization (B) Aromatization (C) Dealkylation (D) Rearrangement

Q.2 Write short answers of the following questions.

(8x2=16)

- i. What are polycyclic aromatic hydro-carbons? Give two examples.
- ii. How do you justify that 150.5 kJmol^{-1} is the resonance energy of benzene?
- iii. What is Wurtz-Fitting reaction?
- iv. Convert the ptane into toluene?
- v. Give two reactions to confirm the presence of three double bonds in benzene.
- vi. What happens when benzene is heated with conc. H_2SO_4 at $80^\circ C$?
- vii. How will you prepare o-nitro toluene from benzene in two steps?
- viii. Benzene is less reactive than Alkene, why?

NOTE: Attempt the long question.

(4+4=8)

3(a) Write the mechanism of Halogenation of benzene.

(b) What are Aromatic Hydrocarbons? How are they classified?

MCQs Ans Key.

Q:1 (A)

Q:2 (A)

Q:3 (D)

Q:4 (A)

Q:5 (C)

Q:6 (B)



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(6x1=6)

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NOTE: Attempt the long question.

(4+4=8)

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(b) What are Aromatic Hydrocarbons? How are they classified?

MCQs Ans Key.

Q:1 (A)

Q:2 (A)

Q:3 (D)

Q:4 (A)

Q:5 (C)

Q:6 (B)



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Test Type #	Type 8 - Short Test (No Choice) - Marks=30				
Test Syllabus:	Unit-11,				

Q.1 Circle the Correct Answers.

(6x1=6)

- i Which compound is called universal solvent?
(A) CH_3OH (B) C_2H_5OH (C) CH_3OCH_3 (D) H_2O
- iicompound shows extensive hydrogen bonding with water:
(A) C_2H_6 (B) H_2S (C) C_2H_5OH (D) CH_3Cl
- iii Which compound will have the maximum repulsion with water?
(A) C_6H_6 (B) C_2H_5OH (C) C_3H_7OH (D) CH_3OCH_3
- iv Which enzyme is not involved in fermentation of starch?
(A) Zymase (B) Urease (C) Invertase (D) Diastase
- v Which compound is more soluble in water?
(A) C_2H_5OH (B) C_6H_5OH (C) CH_3COCH_3 (D) *n* - hexanol
- vi Bakelite is obtained from phenol by reacting with:
(A) Acetal (B) Ethanal (C) Formaldehyde (D) Methanol

Q.2 Write short answers of the following questions.

(8x2=16)

- i. What is difference between Monohydric and polyhydric alcohols. Give one example of each.
- ii. Draw flow sheet diagram for manufacture of methanol.
- iii. What is Methylated spirit?
- iv. What is rectified spirit?
- v. Write structural formulas of the following compounds. (a) Carboic acid (b) glycerol
- vi. Describe method for preparation of phenol from sodium salt of benzene sulphonic acid.
- vii. Draw structures of picric acid and cyclohexanol.
- viii. Prepare bakelite from phenol?

NOTE: Attempt the long question.

(4+4=8)

- 3(a) Write down two methods for preparing phenol. How phenol reacts with: a) Zn b) Br_2 water
- (b) Give reactions of ethyl alcohol with i) Conc. H_2SO_4 at $180^\circ C$ ii) I_2 and NaOH
- iii) PCl_3 iv) PCl_5

MCQs Ans Key.

Q:1 (D)

Q:2 (C)

Q:3 (A)

Q:4 (B)

Q:5 (A)

Q:6 (C)



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Q.1 Circle the Correct Answers.

(6x1=6)

- i Which reaction is disproportionation reaction?
(A) Aldol Condensation (B) Cannizzaro's reaction (C) Haloform reactions
(D) Acid-Catalyzed reactions
- ii Aldol condensation is given by:
(A) Acetaldehyde (B) Formaldehyde (C) Benzaldehyde (D) Trimethylacetal
- iii Which reagent will react with both aldehyde and ketones?
(A) Grignard reagent (B) Tollen's reagent (C) Fehling's reagent (D) Benedict's reagent
- iv Aldehydes and ketones can be detected by:
(A) 2, 4-DNPH Test (B) Tollen's Test (C) Sodium Nitro prusside test
(D) Benedict's solution test
- v The compound which reacts with Tollen's reagent:
(A) HCHO (B) $\text{H}_3\text{C.CO.CH}_3$ (C) $\text{H}_3\text{C.COOH}$ (D) $\text{H}_3\text{C.CO.C}_2\text{H}_5$
- vi Ketones are prepared by the oxidation of:
(A) Primary alcohol (B) Secondary alcohol (C) Tertiary alcohol (D) None of these

Q.2 Write short answers of the following questions.

(8x2=16)

- i. How will you distinguish between ethanal and Propanone?
- ii. Give the formulas of i) Formaldehyde ii) Acetaldehyde
- iii. What are condensation reactions?
- iv. Complete the reactions. i) $\text{CH}_3\text{CHO} + \text{C}_2\text{H}_5\text{OH} \rightarrow ?$ ii) $\text{CH}_3\text{CHO} + \text{NH}_2\text{OH} \rightarrow ?$
- v. Prepare following compounds from acetaldehyde. a) Lactic acid b) Acetic acid
- vi. Write structural formulas of these compounds:
- vii. What is Fehling's solution test? Write its chemical equation.
- viii. How can you chemically distinguish between propene and propyne?

NOTE: Attempt the long question.

(4+4=8)

3(a) Write a note on oxidation of aldehydes and ketones.

(b) Using ethyne as a starting material how would you get acetaldehyde, acetone and ethyl alcohol?

MCQs Ans Key.

Q:1 (B)

Q:2 (A)

Q:3 (A)

Q:4 (A)

Q:5 (A)

Q:6 (B)



TALEEM CITY INSTITUTE

Ameenpur, Faisalabad

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Name:		Roll#:		Class:	Inter Part-II
Subject:	Chemistry-12	Date:		Time:	
Test Type #	Type 8 - Short Test (No Choice) - Marks=30				
Test Syllabus:	Unit-13,				

- i. is aromatic acid:
(A) Propanoic acid (B) Ethanoic acid (C) Butanoic acid (D) Phthalic acid
- ii. Among the aliphatic carboxylic acids the first four members are soluble in water due to:
(A) London dispersion forces (B) Hydrogen bonding (C) Ion-Dipole forces (D) Covalent bond
- iii. The flavor of amylacetate is:
(A) Orange (B) Apricot (C) Banana (D) Pineapple
- iv. Organic compound having fruity smell are?
(A) Carboxylic acid (B) Alcohols (C) Ethers (D) Esters
- v. Which of the following ester has orange flavour?
(A) Amyl acetate (B) Benzyl acetate (C) Amyl butyrate (D) Octyl acetate
- vi. Ester benzyl acetate has the flavour:
(A) Banana (B) Apricot (C) Orange (D) Jasmine

Q.2 Write short answers of the following questions.

(8x2=16)

- i. What are fatty acids?
- ii. How acetic acid is prepared by the oxidative cleavage of 2-butene?
- iii. Why carboxylic acids are soluble in water?
- iv. Draw structures of dimer of carboxylic acid.
- v. What happens when ammonium acetate is heated?
- vi. Write down the structural formula of the following. (a) Acetic Anhydride.
- vii. How acetic acid is obtained from methyl cyanide?
- viii. Convert acetic acid to ketone.

NOTE: Attempt the long question.

(4+4=8)

3(a) How would you prepare carboxylic acid from primary alcohols and aldehyde?

(b) Write down the mechanisms of reaction of acetic acid with thionyl chloride and Ammonia?

MCQs Ans Key.

Q:1 (D)

Q:2 (B)

Q:3 (C)

Q:4 (D)

Q:5 (D)

Q:6 (D)



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Name:		Roll#:		Class:	Inter Part-II
Subject:	Chemistry-12	Date:		Time:	
Test Type #	Type 8 - Short Test (No Choice) - Marks=30				
Test Syllabus:	Unit-15,				

Q.1 Circle the Correct Answers.

(6x1=6)

- The macronutrients are required in quantities ranging from:
(A) 4-40 kg per acre (B) 10-100 kg per acre (C) 5-100 kg per acre (D) 5-200 kg per acre
- Micro-nutrient is required in quantity for plant growth ranging from:
(A) 4-40 gm (B) 6-200 gm (C) 6-200 kg (D) 4-40 kg
- Which three elements are needed for healthy growth of Plants?
(A) N,S,P (B) N,Ca,P (C) N,P,K (D) N,K,C
- Ammonium Nitrate fertilizer is not useful for:
(A) Wheat (B) Cotton (C) Sugar cane (D) Paddyrice
- One of following is argillaceous material:
(A) Marble (B) Clay (C) Lime (D) Marine Shell
- Which is not a calcarious material?
(A) Clay (B) Limestone (C) Marble (D) Chalk

Q.2 Write short answers of the following questions.

(8x2=16)

- Name eight macronutrients of fertilizers.
- Draw flow sheet diagram for manufacture of urea?
- Write the major steps involved in the synthesis of urea fertilizer?
- What are Phosphatic fertilizers? Give two formulas of Phosphatic fertilizers?
- Which type of raw materials are used in cement industry?
- Describe the average composition of Portland cement.
- Which type of calcarious raw material is used in cement?
- What types of reactions take place in 1-7 days during setting of cement?

NOTE: Attempt the long question.

(4+4=8)

MCQs Ans Key.

Q:1 (D)

Q:2 (B)

Q:3 (C)

Q:4 (D)

Q:5 (B)

Q:6 (A)