Student Name:		Roll No:	Date: / /
سوچ بدلیں،معاشرہ بدلیں	Class 2nd Year	Ch#1	مثبت سوچیں، خوش رہیں
T- Marks - 40	Subject: Chemistry	Time: 45 - M	Obtained Marks:
ٹیسٹ سے پہلے کم از کم تین بار درود شریف پڑھ لیں			
Q#1	Encircle the Correct Option		10X1=10

1. In group i-A charge to size ratio in a group

a	Decrease	**b**	Increase	**c**	Remain same	**d**	None

2. Tin and lead are

a	Insulators	**b**	Conductors	**c**	Semi conductors	**d**	All

3. Which group elements shows zero oxidation state

a	VIII - A	**b**	VIII – B	**c**	VII - A	**d**	VI - A

4. In $SnCl^4$ the oxidation state of Snis ?

a	+2	**b**	-2	**c**	-4	**d**	+4

5. Non metallic character as atomic size increase .

a	Decrease	**b**	Increase	**c**	Remain same	**d**	None

6. Second electron affinity of oxygen is

a	+ 141	**b**	+ 744	**c**	-141	**D**	-744

7. Which of the following has highest ionization energy.

a	B	**b**	C	**c**	N	**d**	O

8. Ionic Radius of F- is .

a	133 pm	**b**	72 pm	**c**	133 nm	**d**	72 nm

9. Which has highest Ionizationenergy .

a	Mg	**b**	Mg+	**c**	Mg++	**d**	None

10. Total periods in periodic table are .

a	8	**b**	7	**c**	9	**d**	10

Q # 2	Short Questions	2X10 = 20

1. Why the oxidation state very in a period but remain constant in a group ?
2. Why d and f – block elements are called transition elements ?
3. How lanthanide contraction control the atomic sizes of elements of 6^{th} and 7^{th} periods ?
4. Why diamond is a non conductorand graphite is fairly a good conductor .
5. Why the second value of electron affinity is shown with positive sign .
6. Why atomic radiusdecrease in a period.
7. Define hydration energy with example
8. Why ionic characters of halidesdecreases from left to right in a period?

9. What do you mean by metallic character ?
10. Define electron affinity with example.

Q # 3	Long Questions	2 X 5 = 10

1. Define ionization energy and explain it trends ?
2. Explain melting and boiling points with trends .

Student Name:		Roll No:	Date: / /
سوچ بدلیں،معاشرہ بدلیں	Class 2nd Year	Ch#2	مثبت سوچیں، خوش رہیں
T- Marks - 40	Subject: Chemistry	Time: 45 - M	Obtained Marks:
ٹیسٹ سے پہلے کم از کم تین بار درود شریف پڑھ لیں			
Q#1	Encircle the Correct Option		10X1=10

I. Which of the following is not an alkali metal ?

a	Fr	**b**	Cs	**c**	Rb	**d**	Ra

II. The oxide of berylliumis ?

a	Acidic	**b**	Baric	**c**	Amphoteric	**d**	None

III. The elements calcium bears resemblancewith ?

a	Ca	**b**	Cr	**c**	Both	**d**	None

IV. Chile saltphemhas chemical formula

a	$NaNo_3$	**b**	KNO_2	**c**	$Na_2B_4O_7$	**d**	None

V. Minerals caso^4 2H^{2}O has the general name

a	Dolomite	**b**	Gypsum	**c**	Calcite	**d**	Epsom salt

VI. Down cell is use to prepared

a	Na_2 Ca_3	**b**	$NaHCO_3$	**c**	Na metal	**d**	All

VII. Solubility of sulphatesof alkaline earth metals down the group .

a	Decrease	**b**	Increase	**c**	Remain same	**d**	None

VIII. A saturated solution of in water is called lime water

a	CaO	**b**	$CaCo_3$	**c**	Ca (OH)$_2$	**d**	None

IX. Alkaline earth metals show oxidation stake.

a	+1	**b**	+2	**c**	+3	**d**	-2

X. Chemical formula of barite is .

a	$BaSo_4$	**b**	$BaCo_3$	**c**	$BrSO_4$	**d**	$BrCO_3$

Q # 2	Short Questions	11 2 = 20

1. Why alkali metals are called so ?
2. Write advantage of commercial preparation of Na metal in down cell .
3. WhyBe shows peculiar behavior.

4. Draw diagram of down cell ?
5. Write formula of Beryl and sylvite .
6. What happen when LiOH is heated to red hot ?
7. Write reaction on cathode and anodic down cell ?
8. How sodium beryllateis produced ?
9. Write name of S block elements .
10. What happen when LiHis treated with water ?

Q # 3	Long Questions	2×5 = 10

3. Explain commercial preparation of NaoHby the diaphragm cell?
4. Write a note on peculiar behavior of the lithium .

Student Name:		Roll No:	Date: / /
سوچ بدلیں،معاشرہ بدلیں	Class 2nd Year	Ch#3	مثبت سوچیں، خوش رہیں
T- Marks - 40	Subject: Chemistry	Time: 45 - M	Obtained Marks:
ٹیسٹ سے پہلے کم از کم تین بار درود شریف پڑھ لیں			
Q#1	Encircle the Correct Option		10X1=10

1. Basic acid is ?

a	Weak base	b	Weak acid	C	Strong acid	d	Strong base

2. When basic acid is neutralized by soda ash is formed .

a	$H_2B_4O_7$	b	Na_2So_4	C	B_2O_3	d	None

3. The geometry of H^2 Bo^4 is .

a	Triclinic	b	Cubic	C	Tetragonal	d	Hexagonal

4. Chemical formula of acid is

a	$H_4B_9O_6$	b	$H_3B_5O_8$	c	$H_6B_4O_9$	d	$H_4B_6O_9$

5. The hydronic of borax is prevented in the presence of.

a	Glycerin	b	Glycol	c	Glucagon	d	Glucose

6. Common oxidation States of boron are .

a	+3	b	-3	c	Both	d	+1

7. Third most abundant element in earth crust is .

a	Boron	b	Aluminum	c	Oxygen	d	Silicone

8. Which metal is used in the thermite process because of its reactivity ?

a	Iron	b	Copper	c	Aluminum	d	Zine

9. Which element belong to IV – A group of the period table .

a	Barium	b	Lead	c	Oxygen	Jd	Iodine

10. Chief are of aluminum is.

a	Al_2O_3 2HO	b	Al_2O_5 2HO	c	Al_7O_3 2HO	d	None

Q # 2	**Short Questions**	12 2 = 20

1. Why boron shows peculiarbehavior ?
2. How borax is produced from calumniate ?
3. What happen when borax is heated with Nh_4 Cl ?
4. What do you know about borax bead test ?
5. How does borax serve as water softening agent.
6. Gives the name and formulas and different acids and boron .
7. Give the name electronic configuration of group IV – Aelements.
8. How will you convert boric acid into borax and vise versa.
9. What is the action of an aqueous solution of borax an litmus.
10. How does orthoboricacid react with $C_2 H_5$ OH ?

Q # 3	**Long Questions**	2 X5 = 10

1. Explain reaction of aluminum with ear non metals acid and alkaline .
2. Write uses of aluminum .

Student Name:		**Roll No:**	**Date:** / /
سوچ بدلیں،معاشرہ بدلیں	**Class 2nd Year**	**Ch#4**	مثبت سوچیں، خوش رہیں
T- Marks - 40	**Subject: Chemistry**	Time: 45 - M	**Obtained Marks:**

Objective Type

Q#1	Encircle the Correct Option	10X1=10

1. Nitrogen and phosphorus give

a	Acidic oxides	**b**	Basic oxides	**c**	Amphoteric	**d**	None

2. Common valenciesof group V-A elementsare .

a	3	**b**	4	**c**	5	**d**	Both a and c

3. Which of the following is laughing gas ?

a	No_2	**b**	N_2O	**c**	NO	**d**	$N_2 O_3$

4. Which gas is not combustible but resembles oxygen in rekindling a glowing splinter.

a	N_2O	**b**	NO	**c**	NO_2	**d**	N_2O_5

5. Which oxide of nitrogen gives ring test .

a	N_2O	**b**	NO	**c**	NO_2	**d**	None

6. Complete the reaction.2Pb (NO_3) > 2PbO ? + O_2

a	N_2O	**b**	NO	**c**	NO_2	**d**	None

7. Phosphoruscan exit in at least allomorphic forms

a	Two	**b**	Three	**c**	Five	**d**	Six

8. Water contains nearly% oxygen.

a	50%	**b**	89%	**c**	14%	**d**	¼th

9. Tellurium has allotropicforms .

a	Two	**b**	Three	**c**	Five	**d**	Nine

10. Formula of stibnite is :

a	$Sb_3 S_2$	**b**	$Sb_2 S_3$	**c**	Sb_4S_3	**d**	None

Q # 2	**Short Questions**	**13 2 = 20**

1. How does aquaregiadissolve gold and platinum.
2. How does nitrogen differ from other element of it's group?
3. The structural formal of NO and N_2O_3 ?
4. Write any method of preparation of NO_2 ?
5. Which has is called laughing gas and why ?
6. What are the oxyacid ofnitrogen and draw their structural formula.
7. Write one method of preparation of NHO_2.
8. How NHO_2 act as an oxidizing agent .
9. Write uses of NHO_3
10. What do you about white phosphorus.

Q # 3	**Long Questions**	**3 X 5 = 10**

1. Explain manufacture of sulphuricacid .
2. Explain properties of nitrous acid .

Student Name:		**Roll No:**	**Date:** / /
سوچ بدلیں،معاشرہ بدلیں	**Class 2nd Year**	**Ch#5**	مثبت سوچیں، خوش رہیں
T- Marks - 40	**Subject: Chemistry**	**Time: 45 - M**	**Obtained Marks:**

Objective Type

Q#1	**Encircle the Correct Option**	**10X1=10**

1. Which hydrogen halides is the weakest acid in solution.

a	HF	**b**	HCl	**C**	HBr	**d**	HI

2. The anhydride ofHCl^4 .

a	ClO_3	**b**	ClO_2	**C**	$Cl_2 O_5$	**d**	$Cl_2 O_7$

3. Which is the strongest acid .

a	HClO	**b**	ClO_2	**C**	$HClO_3$	**d**	$HClO_4$

4. Which halogen occurenaturally in positive oxidation State.

a	Iodine	**b**	Bromine	**C**	Chlorine	**d**	Fluorine

5. Hydrogen bonds is the strongest between the molecules of.

a	HF	**b**	HCl	**C**	HBr	**d**	HI

6. Which of the following is halite.

a	KCl	**b**	NaCl	**c**	CsCl	**d**	KBr

7. The order of decreasing power as an oxidizing agent is :							
a	$Cl_2>F_2>I_2 Br_2$	**b**	$F_2>Br_2>Cl_2>I_2$	**c**	$I_2>Br_2>Cl_2>F_2$	**d**	$F_2>Cl_2>Br_2>I_2$
8. Which can oxidize various coloured dyes to colourless substances.							
a	F_2	**b**	Cl_2	**c**	Br_2	**d**	A and B
9. HF is :							
a	Solid	**b**	Liquid	**c**	Gas	**d**	Plasma
10. Which is used for quantitative analysis of CO.							
a	I_2O_5	**b**	I_2O_4	**c**	I_4O_9	**d**	All

Q # 2	**Short Questions**	**10 2 = 20**

1. What are the disproportionationreaction give examples?
2. Why halogens gain electron readily ?
3. Why does fluorine shows peculiar behavior ?
4. Fluorine remainrestricted to -1 oxidation State.
5. Under what condition does aluminium corrode?
6. On which factors does the oxidizing power of halogen depends ?
7. What do you about $Cl_2 O_7$?
8. What is per chloric acid ?
9. Why per chloric acid is used as 67% solution in water?
10. Why HF is weaker acid then HI ?

Q # 3	**Long Questions**	**2 X 5 = 10**

1. Write Beckmann's method for preparation of bleaching powder .
2. Explain properities of halogen halides.

Student Name:		**Roll No:**	**Date:** / /
سوچ بدلیں،معاشرہ بدلیں	**Class 2nd Year**	**Ch#6**	مثبت سوچیں، خوش رہیں
T- Marks - 40	**Subject: Chemistry**	**Time: 45 – M**	**Obtained Marks:**
Objective Type			
Q#1	**Encircle the Correct Option**		**10X1=10**

1. Valency shown by transition elements.							
a	1	**b**	2	**c**	3	**d**	Variable
2. Paramagnetic behavior is strongest for :							
a	$Fe^{3}+$	**b**	$Mn^{2}+$	**c**	Both	**d**	None
3. Cavalent radii rapidly at start of series :							

a	Decrease	**b**	Increase	**c**	Remain same	**d**	All
4. In first transition series increase in binding energy ends at :							
a	V	**b**	Mn	**c**	Zn	**d**	Cu
5. Which oxidation stake is shown by all elements of first transition series ?							
a	+1	**b**	+2	**c**	+3	**d**	+4
6. The solution of $[To(H_2O)_6]^{3+}$ looks in colour :							
a	Yellow	**b**	Pink	**c**	Violet	**D**	Blue
7. Group VI – B of transition elements contain :							
a	Zn,Cd,Hg	**b**	Cr,Mo,w	**c**	Mn,Te,Re	**d**	None
8. Which is non typicaltransition elements:							
a	Cr	**b**	Mn	**c**	Fe	**d**	Zn
9. Which is a typical transition element:							
a	Sc	**b**	Y	**c**	Re	**d**	Co
10. The strength of binding energy of transition elements depends upon :							
a	Number of electron pairs	**b**	Number of neutrons	**c**	Number of unpaired electron	**d**	None

Q # 2	**Short Questions**	**10 2 = 20**

1. Define corrosion ?
2. What do you know about cathode coating ?
3. What are interstitial compounds ?
4. What do you know about typical and non typical transition elements ?
5. What are substitutionalalloys ?
6. Write some properties of transition elements .
7. How the process of galvanizing protect iron from rusting ?
8. What is meant by d-d transition ?
9. How corrosion can be prevented ?
10. What are the outer transition elements?

Q # 3	**Long Questions**	**2 X 5 = 10**

1. Explain electrochemical theory.
2. Write about the general characteristics of transition elements.
   1) Binding energies 2) Para magnetism. 3) oxidation State. 4) covalent and ionic radii.

Student Name:		**Roll No:**	**Date:** / /
سوچ بدلیں،معاشرہ بدلیں	**Class 2nd Year**	**Ch#7**	مثبت سوچیں، خوش رہیں
T- Marks - 40	**Subject: Chemistry**	**Time: 45 - M**	**Obtained Marks:**
Objective Type			
Q#1	**Encircle the Correct Option**		**10X1=10**

1. The chemist who synthesizedurea from ammonium cyanate was :							
a	Kolbe	**b**	Wholer	**c**	Lavoisioner	**d**	None
2. A double consist of :							
a	Two pi bonds	**b**	Two sigma	**c**	One sigma one pi	**d**	None
3. Select which one is alcohol :							
a	C_2H_5 OH	**b**	CH_3-O-CH_3	**c**	CH_3COOH	**d**	All
4. Linear shape is associated with hybridization :							
a	Sp_3	**b**	Sp_2	**c**	Sp	**d**	dsp
5. Which set of hybrite orbital has triangle shape:							
a	Sp_3	**b**	Sp_2	**c**	Sp	**d**	d_2Sp_3
6. State of hybridization in CH4 is :							
a	Sp_3	**b**	Sp_2	**c**	Sp	**d**	d_2Sp_3
7. Ethers and alcohol show isomerism :							
a	Tautomerism	**b**	Functional group	**c**	Both	**d**	None
8. The diagram represent which compound :							
a	Pyridine	**b**	Thiophene	**c**	Pyrrole	**d**	Furan
9. Saturated alicyclic hydrocarbon have general formula :							
a	CnH_{2n+1}	**b**	CnH_{2n}	**c**	CnH_{2n-2}	**d**	None
10. Organic compounds are in water :							
a	Insoluble	**b**	Soluble	**c**	Both	**d**	None

Q # 2	**Short Questions**	**10 2 = 20**

1. Define catenation ?
2. What is vital force theory.
3. What do you mean by reforming ?
4. What are alicyclic compounds ?
5. Define functional groups give examples .
6. Write two features of organic compounds.
7. Define tautomerismand give examples.
8. What is cistransisomerism.
9. Why there is no free rotation around a double bound .
10. Define isomerism .

Q # 3	**Long Questions**	**2 X 5 = 10**

1. Explain sphybridization with examples.
2. Explain cracking and it'stypes.

Student Name:		**Roll No:**	**Date:** / /
سوچ بدلیں،معاشرہ بدلیں	**Class 2nd Year**	**Ch#8**	مثبت سوچیں، خوش رہیں
T- Marks - 40	**Subject: Chemistry**	**Time: 45 - M**	**Obtained Marks:**
Objective Type			
Q#1	**Encircle the Correct Option**		**10X1=10**

1. For alkanes with more carbon atoms the root word is derived from the greek or Latin :

a	3	**b**	4	**c**	5	**d**	1

2. Alkanes also called :

a	Olefins	**b**	Paraffin's	**c**	Acetylene	**d**	None

3. IUPAC names of H_2C =CH-CH=CH_2 is :

a	2,4- butadiene	**b**	1,4-butadiene	**c**	2,3-butadiene	**d**	None

4. Hydrogen lysis can be carried out in presence of :

a	Pt/charcoal	**b**	Pcl- charcoal	**c**	Ni	**d**	None

5. Formula of chloroform:

a	CH_3Cl	**b**	CCl_4	**c**	CH_2Cl_2	**d**	$CHCl_3$

6. Synthetic rubber is made by polarization of :

a	Chloroform	**b**	CH=CH	**c**	Chloroprene	**D**	None

7. B-Bdichloroethlysulphideis commonly known as :

a	Mustard gas	**b**	Laughing gas	**c**	Phosgene gas	**d**	None

8. The presence of double bond in compound in sign of :

a	Saturation	**b**	Unsaturation	**c**	Substitution	**d**	None

9. Which is used for artificial ripening of fruits:

a	Ethene	**b**	Ethyne	**c**	Methane	**d**	Propane

10. Beparation of vegetables ghee involves :

a	Hologenation	**b**	Hydrogenation	**c**	Both	**d**	None

Q # 2	**Short Questions**	**10 2 = 20**

1. Write IUPAC names of the following.
   a) $CH_3\,CH_2\,(\,CH_3\,)^2\,CH\,(\,CH_2\,CH_3)\,CH_3$
   b) $(\,CH_3\,)^2$ CH- CH –CH $(\,CH_3)^2$

|

CH^3

2. Compare the reactivities alkanes alkenes ,alkynes .
3. Prepare oxalic acid from ethyne.

4. What is hydration reaction of alkynes.
5. How ethyne is prepared from dehydroholgenationof vicinal dihalidie.
6. Why alkenes are so reactive .
7. Prepare alkenes from hydration of alcohols.
8. What is Clemensonreduction.
9. Identify A and B ?C_3H_7OH >PCl_5 A Na >B .

Ether

10. Convert 1- butuneto 1-Bytune.

Q # 3	Long Questions	2 X 5 = 10

1. Explain halogenation alkanes and explain it step by step.
2. Explain acidity of alkynes .

Student Name:		Roll No:	Date: / /
سوچ بدلیں،معاشرہ بدلیں	Class 2nd Year	Ch#9	مثبت سوچیں، خوش رہیں
T- Marks - 40	Subject: Chemistry	Time: 45 - M	Obtained Marks:
ٹیسٹ سے پہلے کم از کم تین بار درود شریف پڑھ لیں			
Q#1	Encircle the Correct Option		10X1=10

3.

1. C-C bond length in benzene is :

a	1-397 Å	**b**	1.54 Å	**c**	1.34Å	**d**	None

2. Geometry benzene is :

a	Cubic	**b**	Tetragonal	**c**	Hexagonal	**d**	None

3. Benzene was discovered by Michael Faraday in :

a	1852	**b**	1825	**c**	1952	**d**	1925

4. Name of this compounds :

a	Naphthalene	**b**	Anthraces	**c**	Phenanthrene	**d**	None

5. By distilling phenol with zinc dust is prepared :

a	Xylene	**b**	Toluene	**c**	Bromobenzen	**d**	Benzene

6. Which of the following can be used as catalyst in fridal craft reaction:

a	AlCl3	**b**	HNo3	**c**	$BeCl_3$	**D**	NaCl

7. Aromatics hydrocarbon are the derivatives of :

a	Alkene	**b**	Benzene	**c**	Cyclohexane	**d**	None

8. During nitration of benzene the active nitrating agent is :

a	No_3	**b**	No_{+2}	**c**	No_2	**d**	HNo_3

9. Electrophile in aromatic salphonation is :

a	H_2So4	**b**	$HS\bar{O}_4$	**c**	SO_3	**d**	None

10. The conversation of n-hexane into benzene by heating in the presence of pt is called:

a	**Isomerization**	**b**	Aromatization	**c**	Dealkylation	**d**	None

Q # 2	Short Questions	10 2 = 20

1. What is side chain oxidation benzene.
2. How malicacid in prepared benzene.
3. Write mechanism for nitration of benzene.
4. Write mechanism for salphunation of benzene.
5. Prepare benzyl chloride from toluene .
6. What is wurtz – fitting reaction.
7. Convert acetylene to benzene.
8. What are resonance structure.
9. What is meant by resonance energy.
10. Prepare benzene from n Hexane.

Q # 3	Long Questions	2 X 5 = 10

1. Explain orientation in electrophilic substitution reaction.
2. Explain Friedel craft+ Alkylation and acylation.

Student Name:		Roll No:	Date: / /
سوچ بدلیں،معاشرہ بدلیں	Class 2nd Year	Ch#10	مثبت سوچیں، خوش رہیں
T- Marks - 40	Subject: Chemistry	Time: 45 - M	Obtained Marks:
ٹیسٹ سے پہلے کم از کم تین بار درود شریف پڑھ لیں			
Q#1	Encircle the Correct Option		10X1=10

1. CH_3
   \CH –Cr is
   /
   CH_3

a	Primary alkylhalide	b	Secondary	c	Tertiary	d	None

2. Alkyl halides can be prepared by the :

a	Halogenation of alkanes	b	Halogenation of alkenes	c	Halogenation alkynes	d	None

3. Those reaction of alkyl halides which in involve the removal of Hxfrom alkyl halide :

a	Elimination reaction	b	Substitution reaction	c	Both	d	None

4. Iodide ion is a good nucleophile as well as :

a	Bad leaving group	b	Good leaving group	c	Both	d	None

5. In primary alkyl halide the halogen atom is attached to a carbon atom which is attached to carbon atom :

a	2	**b**	3	**c**	4	**d**	1

6. When CO_2 made to react with ethyl magnesium iodide : Followed by acid hydrolysis the protect is :

a	C_3H_8	**b**	CH_3CH_2 COOH	**c**	CH_3 CH_2 CH_2OH	**D**	None

7. Which is nota nucleophile :

a	H_2O	**b**	H_2S	**c**	BF_3	**d**	NH_3

8. E2 reaction shows order :

a	1	**b**	2	**c**	3	**d**	4

9. Primary alkyl halides follow:

a	Sn2	**b**	SN_1	**c**	Both	**d**	None

10. Carbocation is intermediate is formed in :

a	SN_2	**b**	E_2	**c**	SN_1	**d**	None

Q # 2	**Short Questions**	**10 2 = 20**

1. What are the tertiary alkylhalides. 2 Write method of preparation of alkyl iodide .
3. Define nucleophile . 4. What is leaving group.
5. Howethylethioalcoholis prepared from bromoethene.
6. Write reaction of methyl and ethyl chloride with Na^4 pb ?
7. What do you mean by wurtzsynthesis?
8. Write any method of preparation of alkyl halide from alcohol.
9. How ($CH_3 – CH_2$) N+ is produced from $CH_3 – CH_2$ - Br ?
10. Write IUPAC names.

a)H_2C _ CH_2 b) (CH_3) C- CH - Cl

| Br Br

Q # 3	**Long Questions**	**2 X 5 = 10**

1. Explain SN1 reaction and mechanism . 2 Explain B- Elimination reaction.

Student Name:		**Roll No:**	**Date:** / /
سوچ بدلیں،معاشرہ بدلیں	**Class 2nd Year**	**Ch#11**	مثبت سوچیں، خوش رہیں
T- Marks - 40	**Subject: Chemistry**	**Time: 45 - M**	**Obtained Marks:**
ٹیسٹ سے پہلے کم از کم تین بار درود شریف پڑھ لیں			
Q#1	**Encircle the Correct Option**		**10X1=10**

1. Alcohol and phenol are considered as hydroxyl derivative of :

a	Alkanes	**b**	Benzene	**c**	Both	**d**	Alkenes

2. Contains two three or more or OH group:

a	Monohydric	**b**	Polyhydric alcohol	**c**	Both	**d**	None

	3. Optimum temperature for fermentation is :						
a	20-35^0 C	**b**	25-30^0 C	**c**	25-35^{0}C	**d**	None
	4. Alcohol obtained by fermentation is only:						
a	10%	**b**	11%	**c**	12%	**d**	**1**3%
	5. If a nucleophile attacks which bond break :						
a	C-O	**b**	O-H	**c**	C-H	**d**	None
	6. Alcohol are resistant to oxidation :						
a	Primary	**b**	Tertiary	**c**	Secondary	**D**	All
	7. Which enzyme is not involved in the fermentation of starch :						
a	Diastase	**b**	Enzyme	**c**	Urease	**d**	Invertase
	8. Which compound have maximum repulsion with water ?						
a	C_6H_6	**b**	C_2H_5 OH	**c**	CH_3 CH_2 CH_2 OH	**d**	All
	9. Which compound shows hydration bonding :						
	C_2H_6	**b**	C_2H_5 Cl	**c**	CH_3-O-CH_3	**d**	C_2 H_3 OH
	10 CH_2 - CH_2 is named as : | | OH OH						
a	Glycerol	**b**	Glycerin	**c**	Glucagon	**d**	Glycol

Q # 2	**Short Questions**	**10 2 = 20**

1. What is dow,smethod?
2. Write physical properties of phenol ?
3. Why phenol is acidic ?
4. What is Lucastest ?
5. Why productsof dehydrationof alcohol at different temperature .
6. Which products is formed when tertiary alcohol is oxidize .
7. Wnkorder of reactivity of alcohol when O-H and C-O bond breaks .
8. What is Nitration of phenol .
9. Prepare Oster from phenol.
10. Differentiate between ethanol and methanol with the help of a test .

Q # 3	**Long Questions**	**2 X 5 = 10**

1. Write reaction in which C-O and O-H bond breaks .
2. Explain reaction of phenol due to benzene ning .

Student Name:		**Roll No:**	**Date:** / /
سوچ بدلیں،معاشرہ بدلیں	**Class 2nd Year**	**Ch#12**	مثبت سوچیں، خوش رہیں
T- Marks - 40	**Subject: Chemistry**	**Time: 45 – M**	**Obtained Marks:**

Objective Type

Q#1	Encircle the Correct Option	10X1=10

1. ____ group is present camphor :

a	Aldehyde	**b**	Ketonic	**c**	Carboxylic	**d**	Alcohol

2. ____ is prepared by the distillation of calcium acetate :

a	Propanone	**b**	Butanone	**c**	Acetone	**d**	Both A+C

3. Reaction is used to separatecarbonyl compounds from non carbonyl compounds:

a	Addition of Grignard reagent	**b**	Addition of HCl	**c**	Addition of sodiumbisulphite	**d**	None

4. Sodium nitroprusside is shown by :

a	Ketone	**b**	Aldehyde	**c**	Alcohol	**d**	None

5. Aldehyde the first oxidation product of :

a	Primary alcohol	**b**	Secondary alcohol	**c**	Tertiary alcohol	**d**	Quaternary

6. The carbon atom is carbonyl group is :

a	Sp-hybridized	b	Sp_3	**c**	Sp_2	(d) none	

7. Which is the highest boiling point :

a	CH_3- OH	**b**	Ethanol	**c**	Propanone	**d**	2-hexanone

8. Formalin in :

a	**10%** water	**b**	40% formaldehyde	**c**	Both	**d**	None

9. Aldehyde are strong agent :

a	Reducing	**b**	Oxidizing	**c**	Both	**d**	None

3 10. $C_6 H_5$ -C”^{0}-CH_3 is :

a	Butanone	**b**	2-heptanone	**c**	Acetophenone	**d**	None

Q # 2	Short Questions	10 2 = 20

1. What is iodoformtest ?
2. How metafomaldehydeandparaldehyde is produced .
3. How acetone 2,4- DNPH is produced .
4. Write four uses of Acetaldehyde .
5. What is tollen,s test ?
6. What do you know about oxidation of ketones .
7. Write mechanism of reduction with sodium borohydride.
8. Write mechanism of the reaction with ammonia derivative.
9. Write mechanism of reaction with sodium bisulphite.
10. What is cannizaro,sreaction.

Q # 3	Long Questions	2 X 5 = 10

1. Explain Aldalcondensation .
2. Explain haloform reaction.

Student Name:		Roll No:	Date: / /
سوچ بدلیں،معاشرہ بدلیں	Class 2nd Year	Ch#13	مثبت سوچیں، خوش رہیں
T- Marks - 40	Subject: Chemistry	Time: 45 - M	Obtained Marks:
ٹیسٹ سے پہلے کم از کم تین بار درود شریف پڑھ لیں			
Q#1	Encircle the Correct Option		10X1=10

1. Chemical formula of stearic acid :

a	$C1_7 H_{34}$ COOH	b	$C_{18} H_{35}$ COOH	c	$C_{17} C_{34}$ COOH	d	None

2. The irritation caused by an ant bite is due to :

a	Formic acid	b	Acetic acid	c	Propionic acid	d	All

3. Hydrolysis of an alkene atrial on heating with a mineral acid or alkalis yield.

a	Aldehyde	b	Ketone	c	Alcohol	d	Carboxylic acid

4. Malting point of botanic acid is :

a	-22^0 C	b	-6^0C	c	-36^0C	d	-18^0C

5. What is the flavour of Amy lactate :

a	Apple	b	Banana	c	Apricot	d	None

6. Carboxylic acid an reduction with red phosphorus give:

a	Alkanes	b	Alkenes	c	Alcohol	D	Alkynes

7. Which is not a fatty acid :

a	Propionic acid	b	Acetic acid	c	Phthalic acid	d	None

8. Which acid is used in the manufacture of synthetic fiber :

a	Formic acid	b	Oxalic acid	c	Carbonic acid	d	None

9. Which reagent is used to reduce a carboxylic group to an alcohol :

a	H_2/Ni	b	H_2/pt	c	$NaBH_4$	d	LiAlH4

10. Acetic acid manufactured by :

a	Distillation	b	Fermentation	c	Zonolysis	d	All

Q # 2	Short Questions	10 2 = 20

1. What do you know about the boiling points of carboxylic acids.
2. How carboxylic react with carbonates .
3. How carboxylic acid is prepared by hydrolysis of ester .
4. Prepare carboxylic acid from Grignard reagent.
5. Which compound produced by oxidative cleavage of alkenes.
6. Write mechanism of reaction of carboxylic acids with $SOCl_2$.
7. Write four uses of acetic acid.
8. Prepare acetic acid on industrial scale from acetylene.

9. Write physical properties of acetic acid.
10. How acetic anhydride is produced.

Q # 3	**Long Questions**	**2 X 5 = 10**

1. Explain mechanism of formation of Easter.
2. Explain mechanism of formation of amide

Student Name:		**Roll No:**	**Date:** / /
سوچ بدلیں،معاشرہ بدلیں	**Class 2nd Year**	**Ch#15**	مثبت سوچیں، خوش رہیں
T- Marks - 40	**Subject: Chemistry**	**Time: 45 - M**	**Obtained Marks:**
ٹیسٹ سے پہلے کم از کم تین بار درود شریف پڑھ لیں			
Q#1	**Encircle the Correct Option**		**10X1=10**

1. Which elements are needed for healthy growth of plants.

a	N,S,P	**b**	N,Ca,P	**c**	N,P,K	**d**	N,K,C

2. The nitrogen present in some fertilizer helps plant.

a	To fight again disease	**b**	To produce protein	**c**	To produce fat	**d**	To undergo photosynthesis

3. Phosphorus helps growth .

a	Root	**b**	Leaves	**c**	Stem	**d**	Seed

4. Micro nutrients are required in quantity ranging from :

a	4-40g	**b**	6-200g	**c**	6-200kg	**d**	4-40kg

5. Which is not a calcarious materials :

a	Clay	**b**	Lime	**c**	Marble	**d**	Marine shell

6. Through how many zones does the charge pass in rotany kiln :

a	4	**b**	**3**	**c**	2	**D**	5

7. For which crop ammonium nitrate fertilizer is not used ?

a	Cotton	**b**	Wheat	**c**	Sugar can	**d**	Paddy rice

8. The temperature of decomposition zone goes upto :

a	600^{0}C	**b**	900^{0}C	**c**	1000^{0}C	**d**	1200^{0}C

9. Ammonia contains % nitrogen:

a	82%	**b**	33-33.5%	**c**	46.46%	**d**	None

10. Manure is an material used to fertilize land :

a	Plant	**b**	Animal	**c**	Fungus	**d**	None

Q # 2	**Short Questions**	**10 2 = 20**

1. Differentiate between macro nutrients and micro nutrients.

2. What are good qualities of good fertilizer.
3. What is cement?
4. What do you know about ammonia as fertilizer.
5. What are raw material used for manufacture of cement.
6. What do you know about potassium fertilizer.
7. What is prilling?
8. What do you know about diammoniumphosphate.
9. Write composition of cement.
10. What is slurry .

Q # 3	**Long Questions**	**2 X 5 = 10**

1. Explain manufacturing of urea .
2. Explain manufacturing of cement.