MODEL PAPER CHEMISTRY SUBJECTIVE

Intermediate Part — II (12th Class) Examination Session 2015-17 and onward

Total Marks: 68 **Time Allowed: 2:40 Hours**

SECTION----------I

Q.2. Answer any EIGHT parts from the followings: **(8 x 2 = 16)**

(i) What is trend of ionization energy across second period of periodic table?

(ii) What are polymeric halides? Give examples.

(iii) Write a note on "Borax Bead Test".

(iv) Why CO_2 is gas while is SiO_2 is solid at room temperature?

(v) Beryllium oxide is amphoteric in nature". Prove this statement by some chemical reactions.

(vi) How lime mortar is prepared?

(vii) What is aqua regia? How it dissolve gold metal?

(viii) "Sulphuric acid is good dehydrating agent". Justify the statement with two chemical reactions.

(ix) What is disproportionation reaction? Give one example.

(x) What is Freon and Teflon?

(xi) What is Chelate. Give one example?

(xii) Define coordination number and coordination sphere with one suitable example of each.

Q.3. Answer any EIGHT parts from the followings: **(8 x 2 = 16)**

(i) What is tautomerism? Give one example.

(ii) Define homocyclic and heterocyclic compounds with one example of each.

(iii) What is Markonikoff's rule? Give one example.

(iv) How will you convert ethene to: (i) Mustard gas (ii) Ethyne

(v) Benzene behave as unsaturated hydrocarbon in some of its chemical reactions. Give two such reactions.

(vi) How will you prepare m-chloronitrobenzene from benzene in two steps?

(vii) Give two methods for preparation of ethyl chloride form ethyl alcohol.

(viii) What is β-elimination reaction? Give one example.

(ix) Absolute alcohol cannot be prepared by fermentation, why?

(x) How will you distinguish between methanol and ethanol?

(xi) What is acid rain and how does it affect our environment?

(xii) What is ozone depletion? How ozone hole is formed?

Q.4. Answer any SIX parts from the followings: **(6 x 2 = 12)**

(i) Write down the reaction of acetone with: (i) hydrazine (ii) conc. $H_2SO_4 + K_2Cr_2O_7$

(ii) Give commercial method for the preparation of formaldehyde.

(iii) What is peptide bond? Write formula of a dipeptide.

(iv) What are fatty acids? Give two examples.

(v) What is sponification number? Give one example.

(vi) What are copolymers? Give one example.

(vii) Define compound proteins. Give example.

(viii) How pulp is bleached in Pakistan?

(ix) Which is micronutrients and macronutrients for plants? Give examples.

(P.T.0)

SECTION----------II

Note: Attempt any three questions. **(8 x 3 = 24)**

Q5.(a) What is modern periodic law? What are the improvements made in Mendeleev's periodic table? (4)

(b) How sodium metal is prepared by Down's cell method. (4)

Q6.(a) What are silicones? How silicones are prepared? Write three important uses of silicones. (4)

(b) How bleaching powder is prepared by modern method (Backmann)? Give its one use. (4)

Q7.(a) Explain the structure of ethene according to hybridization theory. (4)

(b) What are nucleophilic substitution reactions? Explain mechanism of SN_2 reaction with suitable example. (4)

Q8.(a) How will you convert ethyne to: (i) ethane (ii) acetaldehyde (iii) glyoxal (iv) divinyl acetylene (4)

(b) What types of carbonyl compounds give aldol condensation reaction? Give its mechanism with one example. (4)

Q9.(a) How will you convert: **(i)** n - hexane to benzene **(ii)** benzene to toluene **(iii)** benzene to o-chloronitrobenzne **(iv)** phenol to benzene (4)

(b) Write a note on starch. (4)

(Academic Sessions 2015-2017)

INTERMEDIATE PART-II

MODEL PAPER CHEMISTRY — Time Allowed : 3:00 hours

Practical — Maximum Marks 30

Note: Write down principle, standard solution, End point, Indicator, equation, procedure and supposed calculations for question 2 and procedure for question 3 in first 20 minutes.

1. Identify the given salt 'A' by dry and wet tests. 10

2. Standardize the given solution of HCl by a volumetric method. 10

3. Detect the elements in the given sample of organic compound. 5

4. Note Book. 2

5. Viva Voce. 3

MODEL PAPER CHEMISTRY (OBJECTIVE)

Intermediate Part – II (12th Class) Examination Session 2015-17 and onward

Total Marks: 17 **Time Allowed: 20 Minutes**

Note: You have four choices for each objective type question as A, B, C and D. The choice which you think is correct; fill the circle in front of that question number. Use marker or pen to fill the Circles, Cutting or Filling two or more circles will result in zero mark in that question.

Q.No	Question	A	B	C	D
1.	What is trend of melting point of halogen group downward:	increases	Decreases	Remains same	First increases then decreases
2.	Which is ore of calcium:	Carnalite	Barite	Epsom salt	Phosphorite
3.	Which acid of boron is stable in solution form:	Metaboric acid	Tetraboric acid	Orthoboric acid	Pyroboric acid
4.	Chemical composition of heavy spar is:	$CaSO_4$	$BaSO_4$	HgS	Sb_2S_3
5.	Which one is strongest acid:	$HClO_4$	$HClO_3$	$HClO_2$	HCl
6.	The colour of transition metal complexes is due to:	d — d excitation of electrons	d — d de-excitation of electrons	Ionization of metal atoms	Loss of s electrons
7.	Which set of hybrid orbitals has planar triangular shape?	sp	sp^2	Sp^3	dsp^2
8.	Synthetic rubber is made the polymerization of:	Chloroform	Acetylene	Divinyl acetylene	Chloroprene
9.	Which one is fused ring polycyclic aromatic compound:	Biphenyl	Toluene	Naphthalene	Ethyl chloride
10.	What product is formed when ethanol reacts with methyl magnesium iodide:	Methane	Ethane	Ethene	Ethyl chloride
11.	What principal product is formed when phenol reacts with concentrated nitric acid:	Picric acid	o - nitrophenol	Nitrobenzene	No reaction takes place
12.	Which substance does not form iodoform when reacts with NaOH and I_2:	Acetaldehyde	Acetone	2 - propanol	Methanal
13.	Amino acid tryosine was first isolated from:	Goat liver	Sugarcane	Cheese	Urine
14.	Which one of the following nitrogenous base is NOT present in RNA:	Cytosine	Adenine	Thiamine	Uracil
15.	Calcareous material for manufacturing of cement is:	Marine shells	Gypsum	Clay	Blast furnace slag
16.	A single chloride free radical can destroy how many ozone molecules:	10	100	10000	100000
17.	In purification of potable water, the coagulant used is:	Copper sulphate	Potash alum	Rock salt	Washing soda