**Balochistan Board of Intermediate and Secondary Education, Quetta**

Model Paper for HSSC Examination 2017 and Onwards

Subject: Chemistry Total Marks = 85 Class XII

**Attempt all sections**

**Section A (12 + 6 = 18 marks)**

Q No. 1 (a) Choose the correct answer:-

1. The second electron affinity oxygen is
2. positive b) negative c) neutral d) None of them
3. most abundant alkali metal in earth crust
4. Na b) K c) Li d) Cs
5. The dissolving power of equa regia is due to
6. Cl (b) Cl2 (c) NOCl (d) HF
7. washing of metal sheets with H2SO4 called
   1. mordating b. pickling c. Oxidizing d. None of these
8. Nonmetal halides have bonds
   1. Ionic b. Covalent c. Molecular d. None of these
9. Bauxite is an ore of
   1. Al b. B c. Si d. Cu
10. which one isomer of ethanol
11. CH3OCH3 (b) C2H2-O-C2H5 (c) CH3OH (d) none of them
12. R-mg-X decomposed by H2O into:
13. Alkane (b) Alkene (c) Alkyne (d) Alkyl Halide
14. Rectified spirit contain Ethanol
15. 80% (b) 90% (c) 95% (d) 99%
16. Which is not organic compound
    1. HCl b. CaC2 c. Na2CO3 d. CaCl2
17. The boiling point of Benzene is
    1. 80.2˚C b. 90.2 ˚C c. 85.2 ˚C d. 75.2 ˚C
18. Who prepared Bakelite
    1. Kolbe b. Hoffman c. Backland d. Williamson

b). Fill in the blank:-

1. Oxides of sodium are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. CS is \_\_\_\_\_\_\_\_\_\_\_ electropositive character than that of K.
3. Lithium combine with nitrogen to give \_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. Laughing gas has the formula of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. The coal contain \_\_\_\_\_\_\_\_\_\_\_\_\_\_ Carbon called anthracite
6. When one hydrogen is engaged from benzene the radical is called \_\_\_\_\_\_\_\_\_\_

**Section B** **13X3 = 39 Marks**

Note:- Attempt any thirteen question each question carry 03 marks.

1. Why atomic radius decrease from left to right with in a period?
2. Why calcium chloride is added in NaCl?
3. Write structural formula of silicon dioxide showing a covalent network.
4. Why oxidation states of noble gasses are usually zero?
5. Define alloys, write name of metals which is used in preparation of brass and bronze.
6. Write isomers of C2H5O write their IUPAC name.
7. Why alkanes are less reactive then alkenes?
8. What are the character of aromatic compounds write any three?
9. What is the similarity of H20 with alcohol; phenol and ether?
10. Write three uses of methanol.
11. What is silver mirror test?
12. How two functional groups create one functional group in carboxylic acid?
13. What is saponification number?
14. Define fertilizers, write name of micro and macronutrient.
15. Define environmental chemistry write only name of environment components.
16. What are conjugate proteins?
17. What do you mean recycling of waste?

**Section C (7x4 = 28 Marks)**

Note: Attempt any four question, each question carry 07 marks.

Q. No. 3 Compare Hydrogen with Alkali metals and group (IV) element at least three resemble and three difference in each category.

Q. No. 4 Explain with diagram, construction and working of Nelson’s cell for commercial preparation of NaOH.

Q. No. 5 Explain brick land eyed process for manufacture of HNO3.

Q. No. 6 What are Nucleophile substitution reaction explain SN2 reaction.

Q. No. 7 Discuss the process for manufacture of cement.

Q. No. 8 Define carbohydrate, explain monosaccharaides.

Q. No. 9(a) Draw the structure of following compounds.

(i) Trinitrotoluene (ii) Cyclobutane (iii) Methanoic acid

(b). write IUPAC name of following.

o

(i). H3C------------H2C-----------C-----------------CH3

o

(ii). H3C------------H2C-----------C-----------------OH

o

(iii). H3C------------H2C----------H2C-------------C-----------CH3

(iv).

**List of experiments**

**Chemistry B**

**Minor Practicals**

1. Preparation of copper Amine complex.
2. Preparation of Glucose zone
3. Preparation of Iodoform.
4. Detection of elements in organic compounds (urea and Thio Urea)

**Major Practicals**

At least one salt perform from each group. Performance must be given following salts.

1. Lead acetate
2. Cdmium Nitrate / Bismith Nitrate
3. FeSo4
4. FeCl3
5. ZnCl2 / ZnSO4
6. BaCl2
7. CaCo3
8. CaCl2
9. NH4Cl
10. NaCl
11. KBr
12. Magnesium Nitrate

**Time: 3 Hours Chemistry Practical B Marks. 15**

**Note:- Write down the procedure and chemical equation for Q No. 1 within 15**

**Minutes and get it signed by examiner.**

Q No. 1. Preparation of copper amine complex. **04**

Q No. 2. Detect the acidic and basic radical in given salt, perform at least two confirming test of

present acidic and basic radicals and get it signed by examiner. **07**

Q No. 3. Via voce. **02**

Q No. 4. Practical Note Book. **02**

**Time: 3 Hours Chemistry Practical B Marks. 15**

**Note: write down the procedure for preparation of lassaingne’s solution within**

**fifteen minutes and get it signed by the examiner.**

**Qno1.** Detect the element in organic compounds. **04**

**Qno2.** Detect the acidic and basic radical in given salt, perform at least two confirming test of

Present acidic and basic radicals and get it signed by examiner. **07**

Q No. 3. Viva voce. **02**

Q No. 4. Practical Note Book. **02**

**GENERAL INSTRUCTION FOR CHEMISTRY PRACTICAL B**

Q. No. 1

a) **Preparation**

i) Procedure = 02

ii) Equation = 01

iii) Result / performance = 01

b) Detection of elements in organic compound

L. Solution = 02

Element present ( Nitrogen) = 01

Element absent (S and X) =01

Q. No. 2 Salt analysis = 07 Marks

a) Dry Test = 01

b) Acid Radicals =

i) Groups Test = 01

ii) Two confirmatory test

Signed by Examiner = 02

c) Basic Radicals

i) Group Identification 01

ii) Two confirmatory Test 02

Duly signed by examiner

Q No. 3. At least 5 questions regarding with relevant practical must asked.

Q No. 4. Practical Note Book = **02**

Full credit must be given to the dully signed and complete practical note book. = **02**