Roll No.: | | | | | | | | | | | Date: | | | | | | |

NORTHWEST ACCREDITATION COMMISSION, USA
HIGH SCHOOL DIPLOMA (Sr. Secondary/12TH) 2018-2019

Subject- CHEMISTRY (PRACTICAL) **Question Paper No. :** B P 3 3

Subject Code : PCH1205 **Question Paper Code:** P B 7 1

Total Time: 01.30 Hours. **Total Marks: 30**

GENERAL INSTRUCTIONS

1. OPENING AND CHECKING OF THE QUESTION-BOOKLET

Break open the seal of the Question-Booklet only when the announcement is made by the Invigilator. After breaking the seal and before attempting the questions, student should immediately check for:

a) The number of the printed page in the Question-Booklet is the same as mentioned on the cover page of the Booklet and

b) Any printing error in the Booklet pages, if any.

Any discrepancy or error should be brought to the notice of the Invigilator who will then replace the Booklet. No additional time will be given for this.

2. No student, without the permission of the Superintendent, or the Invigilator concerned, is to leave his/ her seat or the Examination Room.

3. FILLING UP THE REQUIRED INFORMATION ON QUESTION-BOOKLET AND ANSWER SHEET

After breaking open the seal and checking the Booklet, student should:

a) Fill up the **Question Paper No.** and **Question Paper Code** (mentioned on the cover of Question-Booklet) in the space provided on the First Answer Sheet.

b) Fill up his/her Roll Number on the First Answer Sheet and on each Supplementary Answer Sheet, if taken.

c) Student should mention the total number of **Supplementary Answer Sheet**, if taken, in the space provided on the First Answer Sheet and also fill up the Serial Number mentioned on each **Supplementary Answer Sheet** along with his/her Roll Number in the register maintained by the Invigilator. Student must tie all the Answer Sheets with the thread provided by the Invigilator.

4. INSTRUCTIONS ABOUT QUESTION PAPER

a) This Question Paper includes five questions. All questions are compulsory.

b) All questions are carrying six marks each in approximately 80-120 words.

5. Student found in possession of Cellular Phone / Mobile Phone / Pager or any other Communication Device and/or any Book/Note whether using or not, will be liable to be debarred for taking examination(s) either permanently or for specified period or/and dealt with as per law or/and ordinance of the School/SERI according to the nature of offence, or/and he/she may be proceeded against and shall be liable for prosecution under the relevant provision of the Statutory Law.

THE ANSWER SHEET IS TO BE RETURNED ON COMPLETION OF THE TEST

This Question Paper **MUST** be attached with Answer Sheet

Sample Paper

Total number of questions: 5	Marks allocated to each question: 6	Total marks: 30

Question 1. (a) Define the following terms :

(i) Molar conductivity (^m)

(ii) Secondary batteries

(iii) Fuel cell

(b) State the following laws :

(i) Faraday first law of electrolysis

(ii) Kohlrausch's law of independent migration of ions

OR

(a) Define the term degree of dissociation. Write an expression that relates the molar conductivity of a weak electrolyte to its degree of dissociation.

(b) Ramesh went to a departmental store to purchase groceries. On one of shelves he noticed sugar-free tablets. He decided to buy them for his grandfather who was a diabetic. There were three types of sugar-free tablets. Ramesh decided to buy sucrolose which was good for his grandfather's health.

(i) Name another sugar free tablet which Ramesh did not buy.

(ii) Was it right to purchase such medicines without doctor's prescription ?

(iii) What quality of Ramesh is reflected above ?

Question 2. (a) Complete the following chemical reaction equations :

(i) Cu + HNO3(dilute) →

(ii) P4 + NaOH+ H2O →

(b) (i) Why does R3P = O exist but R3N = O does not ? (R = alkyl group)

(ii) Why is dioxygen a gas but sulphur a solid ?

(iii) Why are halogens coloured ?

OR

(a) Write balanced equations for the following reactions :

(i) Chlorine reacts with dry slaked lime.

(ii) Carbon reacts with concentrated H2SO4.

(b) Describe the contact process for the manufacture of sulphuric acid with special reference to the reaction conditions, catalysts used and the yield in the process.

Sample Paper

Question 3. (a) Describe the following giving chemical equations :

(i) De-carboxylation reaction

(ii) Friedel-Crafts reaction

(b) How will you bring about the following conversions ?

(i) Benzoic acid to Benzaldehyde

(ii) Benzene to m-Nitroacetophenone

(iii) Ethanol to 3-Hydroxybutanal

OR

(a) Describe the following actions :

(i) Acetylation (ii) Aldol condensation

(b) Write the main product in the following equations :

Question 4. (a) Describe the various steps of Griffith's experiment that led to the conclusion of the 'Transforming Principle'.

(b) How did the chemical nature of the 'Transforming Principle' get established?

OR

Describe how the lac operon operates, both in the presence and absence of an inducer in E.coli.

Question 5. (a) Explain the different ways apomictic seeds can develop, Give an example of each.

(b) Mention one advantage of apomictic seeds to farmers.

(c) Draw a labelled mature stage of a dicotyledonous embryo.

OR

(a) Where does fertilization occur in humans? Explain the events that occur during this process.

(b) A couple where both husband and wife are producing functional gametes, but the wife is still unable to conceive, is seeking medical aid. Describe any one method that you can suggest to this couple to become happy parents.

Sample Paper

END OF THE QUESTION PAPER