SRI GURU NANAK PUBLIC SCHOOL, ADARSH NAGAR DELHI-110033

SUMMER VACATIONS HOLIDAY HOMEWORK(2024-25)

CLASS XI SCIENCE

SUBJECT: ENGLISH

Q1 *Power Point presentation*

Based on the chapter 1 The Portrait of a Lady by Khushwant Singh, prepare a power point presentation.

Compare and contrast the characteristics of the author's grandmother with that of your own grandmother/mother/aunt.

Please note the following points

👉**Give a title to your presentation**

👉**Add some pictures of your grandmother/mother/aunt/other relevant picture.**

👉**Number of slides should be 7-10**

👉**Also , write a note on your association with your grandmother/mother/aunt/other relative**

👉**Make it attractive and colorful.**

Q2 to Q6 to be done in fair register.

Q2 Pen down your feelings for your Grandparents/parents/father/mother in the form of Self Composed poem.

Q3 Your school is holding a Poster Making competition on 'Children Should Not Use Mobile Phones'. Draft suitable poster as your entry for the competition.

Q4 You are pained to see the plight of stray animals in the streets. Write an article for the newspaper on 'Stop Animal Abuse'.

Q5 Regular practice of Yoga can help in maintaining good health and even in the prevention of many ailment. Write a speech in 150-200 , words to be delivered in the morning assembly on the 'Usefulness of Yoga'.

SUBJECT : PHYSICS

1. **Revise for Periodic Test scheduled in the month of July.**
2. **Complete the assignments on Motion in a Straight Line and Motion in a Plane.**

SUBJECT : CEMISTRY

1. **Revise the chapters covered in the class.**
2. **Do Assignment given.**
3. **Chapter - Redox reactions and Basic Concepts of Chemistry**
4. **Back exercise NCERT of both the chapters in HHW.**
5. **In HW register along with assignment given below.**
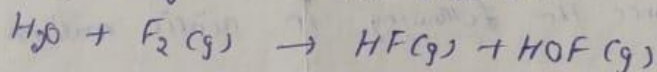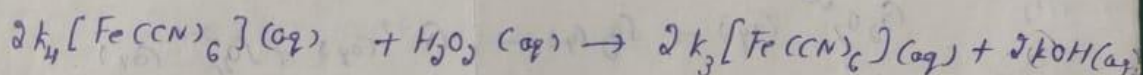
ASSIGNMENT

CLASS- XI   Ch - Redox Reactions
CHEMISTRY

A. Very Short Answer type Questions [one mark each]

1. The reaction : $Cl_2(g) + 2OH^-(aq) \rightarrow ClO^{-1}(aq) + Cl^{-1}(aq) + H_2O(l)$ represents the process of bleaching. Identify and name the species that bleaches the substances due to its oxidising action.

2. Justify that the following is a redox reaction.
$$H_2O + F_2(g) \rightarrow HF(g) + HOF(g)$$

3. Identify the oxidant and reductant in the following reaction :
$$2k_4[Fe(CN)_6](aq) + H_2O_2(aq) \rightarrow 2k_3[Fe(CN)_6](aq) + 2kOH(aq)$$

4. What is the oxidation number of : (i) H in CaH_2 (ii) O in H_2O_2.

5. Define oxidising and reducing agent.

6. Define oxidant and Reductant in terms of oxidation number.

7. Give an example of disproportionation reaction.

8. Give an example of reaction which is not a redox reaction. [Decomposition reaction].

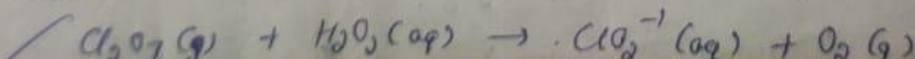9. What is the oxidation number of Mn in $kMnO_4$.

10. Calculate the oxidation number of Cr in $k_2Cr_2O_7$ and S in $S_2O_3^{2-}$.

B. Short Answer type Questions : [2 marks each]

1. Balance the equation by half reaction method :
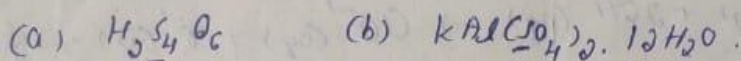$$MnO_4^-(aq) + I^-(aq) \rightarrow MnO_2(s) + I_2(s) \text{ [basic medium]}$$
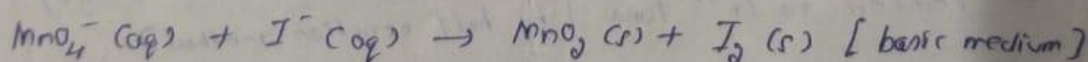
2. Balance the equation in basic medium by oxidation number method.
$$Cl_2O_7(g) + H_2O_2(aq) \rightarrow ClO_2^{-1}(aq) + O_2(g)$$

3

3. ✓ Balance the equation in basic medium by half reaction method:

$$P_4 (s) + OH^- (aq) \rightarrow PH_3 (g) + H_2PO_2^{-1} (aq).$$
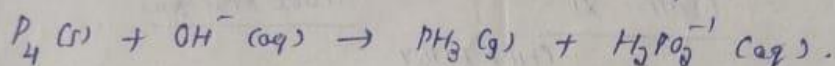
4. ✓ Calculate oxidation state of underlined element:

(a) $H_2\underline{S_4}O_6$ (b) $KAl(\underline{S}O_4)_2 . 12H_2O$.

5. Balance the equation in acidic medium.

$$Br_2 + H_2O_2 \rightarrow BrO_3^{-1} + H_2O.$$
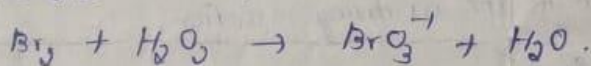
6. ✓ (i) Balance the following in acidic medium:

$$MnO_4^- (aq) + SO_2 (g) \rightarrow Mn^{2+} (aq) + HSO_4^{-1} (aq)$$

(ii) $$Cr_2O_7^{2-} (aq) + SO_2 (g) \rightarrow Cr^{3+} (aq) + SO_4^{2-} (aq).$$
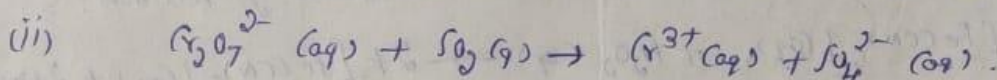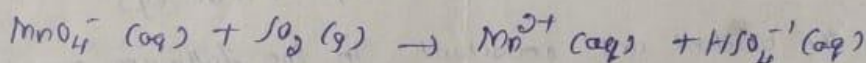
[by oxidation number method]

7. MnO_4^{2-} undergoes disproportionation reaction in acidic medium but MnO_4^- does not. Give reason.

8. PbO and PbO_2 react with HCl according to the following:

$$2PbO + 4HCl \rightarrow 2PbCl_2 + 2H_2O$$
$$PbO_2 + HCl \rightarrow PbCl_2 + Cl_2 + H_2O$$
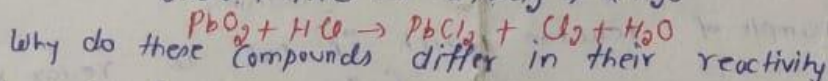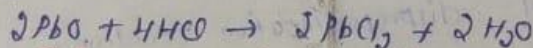
Why do these compounds differ in their reactivity

9. Nitric acid is an oxidising agent and reacts with PbO but it does not react with PbO_2. Explain why.

10. (C) SHORT ANSWER QUESTIONS (3 marks each)

1. Write the net ionic reaction showing the oxidant of Fe^{2+} ions to Fe^{3+} ions by dichromate ions in acidic medium, wherein $Cr_2O_7^{2-}$ ions are reduced to Cr^{3+} ions [by half reaction method]

2. Find oxidation number of:
(a) Mn in MnO_4^{-1} (b) O in H_2O_2.
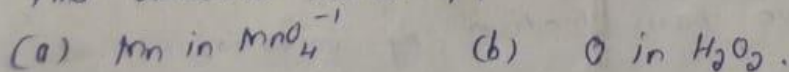
(ii) Balance the eq. $MnO_4^- + I^- \rightarrow MnO_2 + IO_3^-$ [basic medium]

SUBJECT : MATHEMATICS

Assignment: Do the Assignment of Ch 8 (Sequence & Series) & Ch4 (Complex Nos) in Assignment Register.

Prepare for Maths Periodic Test 1.

SUBJECT :BIOLOGY

ASSIGNMENT

S.NO	QUESTION
1	Write the name and important function of the fluid-filled double membranous layer surrounding the lungs.
2	Which is the prime site for the exchange of gases in our body?
3	Why does smoking cigarette cause emphysema?
4	Organize the following in ascending order a) Tidal volume b) Residual volume c) Inspiratory reserve volume d) Expiratory capacity
5	Write the organs of respiration in the entities given below: a) Flatworm b) Frog c) Birds d) Cockroach
6	Write the various modes of transportation of carbon dioxide in the blood.
7	Mention the main parts involved in the initiating a pressure gradient between the lungs and the atmosphere during normal respiration.
8	State the differences between the following: a) Expiratory and inspiratory reserve volume b) Total lung capacity and vital capacity c) Occupational respiratory disorder and Emphysema
9	List the following steps in a sequential manner for the completion of the respiration process. a) Diffusion of oxygen and CO_2 across the alveolar membrane b) Transportation of gases by blood c) Utilization of oxygen for catabolic reactions by the cells and hence the resultant release of CO_2 d) Pulmonary ventilation through which atmospheric air is drawn in and carbon dioxide-rich alveolar air is given out e) Diffusion of oxygen and carbon dioxide between tissues and

10	Fill up: a) The serum is the plasma without _____ factors. b) Phagocytic cells are _____ and monocytes. c) Eosinophils are linked with _____ reactions. d) In clotting, _____ ions play an important role. e) In an ECG, one can determine the heartbeat rate by counting the number of _____.
11	Name the coronary artery disease that is caused as a result of narrowing of the lumen of arteries.
12	What is ECG?
13	State the differences between the following: • Lymph and blood • Eosinophils and Basophils • Bicuspid valve and tricuspid valve
14	a) Which is the site where RBCs are formed? b) Name the part of the heart that initiates and maintains the rhythmic activity c) What is the heart of crocodiles is specific amongst reptilians?
15	Why are thrombocytes necessary for blood coagulation?

*PRACTICE ALL DIAGRAMS COVERED SO FAR.
*READ NCERT RELIGIOUSLY WORD BY WORD.
*COMPLETE THE PRACTICAL FILE.
*COMPLETE THE PROJECT REPORT WITH CASE STUDIES .

REVISE CHAPTERS (COVERED SO FAR) THERE WILL BE TEST IMMEDIATELY AFTER VACATION.

SUBJECT : COMPUTER SCIENCE

- **Prepare a presentation with animation effects , images, background and content , as allotted Roll No. wise :**
    Roll no. 1 -15 : Computer System Overview
    Roll no. 16 -30 : Python Fundamentals - Tokens
    Roll no. 31 onwards : Operators
    Note : (minimum 15 slides)
- **Complete the Assignments of Ch1 , Ch6, Ch7**
- **Do Practice of Programs for Getting Started with Python and Python Fundamentals**
- **Prepare PYTHON PROGRAMMING Practical file, with Programs 1-5 of CBSE Practical List**
- **Prepare for the syllabus of Periodic Test-1**

SUBJECT : PHYSICAL EDUCATION

.Perform any Ten Asanas of your choice daily and paste your own pics.

*Tadasana

*Bhujangasana

*Dhanur Asana

*Halasana

*Paschimottanasana

*Pavanmuktasana

*Ushtrasana

*Gomukh Asana

*Uttanapadasana

*Vakrasana

*Urdhwahasottottansana

*Mandukasana

*Ardha matsyendrasana

*Bhadrasana

*Shalabhasana

ENJOY SUMMER BREAK WITH BOOKS

STAY CONNECTED

HAPPY HOLIDAYZZ…..