Holidays HW (Session 2023-24)
Class XI Science

SUBJECT : ENGLISH

Q1 Read any one novel/story/play of the following Indian authors and do as directed:

JANE AUSTIN

OR

B. SHAKESPEARE

OR

RUSKIN BOND

- Write a book review and critical appreciation of the novel in 150 to 200 words
- Write a character sketch of any ONE character that you loved in the novel.
- Write 50 difficult words along with their meaning
- Make a beautiful book jacket for the same and keep the sheets of above questions in it

Please note:

The project must be handwritten. Use A-4 size sheets .

Q2 POSTER MAKING

Make a poster portraying your thoughts and point of view on the following topics:

1- 'THE BLUE GOLD-'WATER'
2 - 'MENTAL WELL BEING'

SUBJECT : PHYSCICS

1. Complete the Assignment of Ch-2 uploaded
2. Complete the Practical File
3. Revise Ch-1 & Ch-2 for Physics Periodic Test-1

SUBJECT : CHEMISTRY

1. Revise the chapters covered in the class.
2. Do Assignment given.
3. Chapter - Redox reactions
4. Back exercise NCERT Q.1,2,4,10,18,19,20,21,23
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.

$$Cl_2O_7(g) + H_2O_2(aq) \rightarrow ClO_2^{-1}(aq) + O_2(g)$$

CLASS-XI

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) $H_2\underline{S}_4O_6$ (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

1. Complete the Assignment Of Ch1, 2 & 5
2. Prepare the syllabus of 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**
REVISE CH 17 , 18 (COVERED SO FAR) THERE WILL BE TEST IMMEDIATELY AFTER VACATION.

SUBJECT : COMPUTER SCIENCE

1. 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 - 45 : Operators
   Roll no. 46 onwards : Data Types
   Note : **(minimum 15 slides)**

2. Complete the Assignments of Ch1 , Ch6, Ch7
3. Do Practice of Programs for Getting Started with Python and Python Fundamentals

SUBJECT- PHYSICAL EDUCATION

●Use colourful A4 Size Sheets.
●Perform 10 Asanas Daily.
●Paste your own pics of Asanas.
●Write -Introduction of Asana procedure, 10 Benefits,5 contraindications.