KENDRIYA VIDYALAYA, ONGC, JORHAT
HOLIDAY HOMEWORK FOR WINTER BREAK
CLASS –XI

ENGLISH –

1. Complete your ASL project
2. Revision of the following text:
   - I) The Portrait of a Lady
   - II) A Photograph
   - III) We are Not Afraid to Die
   - IV) The Summer of the Beautiful White Horse
   - V) The Address
3. Draft a poster on road safety
4. Write a speech in 120- 150 words to be delivered in the morning assembly of your school highlighting the impact of Yoga in our life.

BIOLOGY-

1.Revise plant physiology for PT-II.
2.Prepare a project file on any one topic from your syllabus.

HINDI –

1.'भोगाली बिहु' पर रिपोर्ट (प्रतिवेदन) लिखें ।

2. जोरहाट के दर्शनीय-स्थलों की जानकारी देते हुए दिल्ली में बसे अपने मित्र को पत्र लिखिए ।

3. निम्नलिखित में से कोई दो फ़िल्में देखिए और उनसे मिलने वाली पाँच प्रमुख शिक्षाएँ लिखिए :–

I :- https://youtu.be/gZy4vIGf7MY
I am kalam

ii :- https://youtu.be/CPXkijYI9Y0
Chalk n duster

iii :- https://youtu.be/a1G1Sg3-g2g
Taare zameen par

Iv :- https://youtu.be/l3Sqdk88gH4
Baghban

V :- https://youtu.be/epKzi21TRN8
उम्मीद (लघु फ़िल्म)

Vi :- https://youtu.be/OnhZDZXzBz4
रद्दी लाइब्रेरी (लघु फ़िल्म)

4.अपने पाठ्यक्रम से जनसंचार के कोई पाँच प्रश्न करें।

5. भारत किन्हीं दस स्वतंत्रता संग्राम सेनानियों की परियोजना फ़ाइल बनाएँ, जिसमें इन सेनानियों की फ़ोटो, नाम, जन्म-मृत्यु तिथि, महत्त्वपूर्ण कार्य/ स्वतंत्रता प्राप्ति हेतु सहयोग आदि का वर्णन हो। (A4 साइज़ पेपर में) (कम-कम बीस पृष्ठों में यह कार्य करें ।)

6. अभी तक जो भी पढ़ाया गया है, उसको कम-से कम पाँच बार दोहराएँ और सभी पाठों से 3 महत्वपूर्ण प्रश्नोत्तर लिखे । आते ही उसी से प्रश्न पूछे जाएँगे।

COMPUTER SCIENCE-

1. Prepare Practical file containing 20 questions.
2. Revise chapters – Lists, Tuples & Dictionaries for PT2.

PHYSICS-

1. Perform an activity at your home regarding Archimedes principal and explain it with data in your notebook.
2. Try to make a model to demonstrate Pascal's law.

Mathematics

1. Solve all the question of CHAPTER LIMIT AND CONTINUITY
2. Solve all the question of SEQUENCE AND SERIES
3. Solve all the question OF CHAPTER STRAIGHT LINE
4. MAKE A MATHEMATICAL MODEL (one model –one students)
5. Solve At least 5 sample papers

CHEMISTRY-

Topic: Thermodynamics

1. A gas occupies 2litres at STP. It is provided 300 J heat so that its volume becomes from 2.5 litre at 1 atm. Calculate change in internal energy.
2. Calculate w,q,and Δ U when 0.75 mol of an ideal gas expands isothermally and reversibly at 27^{0}C from a volume of 15 L to 25 L
3. 10 g of argon gas is compressed isothermally and reversibly at a temperature of 27^0 C from 10 L to 5 L .Calculate w, q, ΔU and Δ H for this process.
4. Calculate q, w, and ΔU and Δ H for the isothermal reversible expansion of one mole of an ideal gas from an initial pressure of 1.0 bar to a final pressure of 0.1 bar at a constant temperature of 273 K.
5. For a reaction at 25^{0}C enthalpy change and entropy changes are -11700 J/mol and –105 J/mol/K respectively. Find out whether the reaction is spontaneous or not.
6. For a reaction, M_2O (s) $\rightarrow$ 2M (s) + ½ O_2
   ΔH = 30 kJ/mol and Δ S= 0.07 kJ/mol at 1 atm .Calculate upto which temperature the reaction would not be spontaneous.
7. A person inhales 640 g of O2 per day . If all the oxygen is used for converting sugar into CO2 and H2O , how much sucrose is consumed in the body in one day and what is the heat involved ? (heat of combustion of sucrose per mole = -5645 kJ/mol)
8. Calculate the standard internal energy change for the reaction $OF_2 + H_2O \rightarrow O_2 + 2HF$ (all in gaseous state) , at 298 K. Given standard enthalpies of formation in kJ /mol are OF_2 = +20 H_2O = -250 and HF = - 270
9. Estimate Δ H for, $2C_4H_{10} \rightarrow C_8H_{18} + H_2$.Given that bond energy of C-C and C-H are 347.3 and 414.2 kJ/mol and the heat of formation of H-atom is 217.55 kJ/mol.
10. 1.0 g magnesium atoms in vapour phase absorbs 50.0 kJ of energy to convert all Mg and Mg ions. The energy absorbed is needed for the following changes :
    Mg (g) $\rightarrow$ Mg + + e- Δ H = 740 kJ/mol
    Mg+ (g) $\rightarrow$ Mg^{2+} + e- Δ H = 1450 kJ/mol
    Find out the percentage of Mg^+ and Mg^{2+} in final mixture.
11. Calculate the value of log Kp for the reaction
    $N_2 + 3H_2 \leftrightarrow 2NH_3$ at 25^{0}C . The standard enthalpies of formation of ammonia is -46 kJ/mol and standard entropies of N_2 , H_2 and NH_3 are 191, 130 , 192 J/K/mol respectively