IF POSSIBLE, PLEASE USE NEW NOTEBOOKS FOR ALL THE SUBJECTS
NOTEBOOKS(SOFT COVER SINGLE LINE REGISTERS 180 PGS)
<u>Assignment-2</u> **for duration 01 May 2020 to 15 May 2020**
DOWNLOAD BOOKLIST FOR 2020-21
Assignment-3 will be uploaded on 15 May 2020

CLASS –XII-SCIENCE
SUBJECT -PHYSICS

ASSIGNMENT-2

Q1. What is a dipole?

Q2. What is charge distribution? Define its types.

Q3. How a positive charge induced?

Q4. Derive equations of vanishing test charge for axial and equatorial lines of a dipole.

Q5. What are electric field lines?

Q6. Write any five characteristics of electric field lines.

Q7. What is superposition principal of charges?

Q8. Derive an expression for dipole in a uniform external electric field.

Q9. Explain Gauss's law.

Q10. Derive all applications of Gauss's law according to NCERT.

Note:- Solve the above questions from study material given.

SUBJECT - CHEMISTRY

Q1 Define the term solution. How many types of solution are formed? Write briefly about each type with an example.

Ans- Refer study material given from class 12 chemistry

Q2 Give the example of a solid solution in which the solute is gas.

Ans- Refer study material.

Q3 Concentrated HNO_3 used in laboratory work is 68% HNO_3 by mass in aqueous solution. What should be the molarity of such sample of acids if density of the solution is 1.504 g/ml?

Ans- refer study material or NCERT text book for the formula of molarity.

Q4 A sample of drinking water was found to be severely contaminated with chloroform (CHCl3) suppose to be a carcinogen. The level of contamination was 15ppm (by mass). Determine the molality of chloroform in the water sample.

Ans- refer study material or NCERT text book.

Q5 Calculate the mole fraction of ethylene glycol ($C_2H_6O_2$) in a solution containing 20% of ethylene glycol by mass.

Ans refer page no.38 of NCERT textbook.

Q6 Calculate the molarity of solution containing 5 g of NaOH in 450 ml solution.

Ans- page no. 38 NCERTtextbook.

Q7 Calculate molality of 2.5 g of ethanoic acid (CH_3COOH) in 75 g of benzene.

Ans- page no. 39 of NCERT textbook.

Q8 Calculate mole fraction of benzene in solution containing 30% by mass in carbon tetra chloride.

Ans- refer study material or NCERTtext book

Q9 Calculate the mass of urea (NH_2CONH_2) required in making 2.5 kg of 0.25 molal aqueous solution.

Ans- Refer study material or NCERT textbook.

Q10 What are the factors which affect the solubility of gas in liquid?

Ans- Refer study material for class 12 chemistry.

BIOLOGY

Read chapter- 02, from the NCERT app. Answer the following;

1. Name the reproductive structure of an angiospermic plant.

2. Name the different parts of an angiospermic flower and write their functions.

3. Write short notes on: stamen, microsporangium and pollen grain.(refer pg: 21)

4. Define Microsporogenesis.(refer pg: 22)

5. Draw a well labelled diagram of a pollen grain. Write the functions of its various parts.(refer pg: 22, 23)

6. With a neat, labelled diagram, describe the parts of a typical angiospermic ovule(megasporangium).(refer pg: 25)

7. Explain the 7-celled,8-nucleate nature of the female gametophyte.(refer pg: 26,27)

8. Define pollination. Explain the three kinds of pollination.(refer pg:27,28)

9. What are the different agents of pollination?(refer pg:28,29)

10. What is the difference between chasmogamous and cleistogamous flower? (Refer pg:28)

Q1. Find the principal values of :

(I) $\cos^{-1}(\sqrt{3}/2)$ (ii) $\operatorname{cosec}^{-1}(2)$ (iii) $\sin^{-1}(-\sqrt{3}/2)$ (iv) $\cos^{-1}(-1/\sqrt{2})$

Q2. Find the principal values of

(a) $\tan^{-1}(-\sqrt{3})$ (b) $\cot^{-1}(-1)$ (c) $\sec^{-1}(-2)$ (d) $\cos^{-1}(-1/2)$

Q3. Find the principal values of :

(a) $\sin^{-1}(\sin 3\pi/5)$ (b) $\cos^{-1}(13\pi/6)$

(c) $\tan^{-1}(\tan 7\pi/6)$ (d) $\operatorname{cosec}^{-1}(\operatorname{cosec} 7\pi/6)$

Q4. Find the values of the following :

(a) $\tan^{-1}(1) + \cos^{-1}(-1/2) + \sin^{-1}(-1/2)$

(b) $\cos^{-1}(1/2) + 2\sin^{-1}(1/2)$

(c) $\operatorname{Cosec}^{-1}(-1) + \cot^{-1}(-1/\sqrt{3})$

(d) $\tan^{-1}(-1) + \cos^{-1}(-1\sqrt{2})$

Q5. Evaluate the following :

(a)$\sin(2\sin^{-1}3/5)$ (b) $\sin(2\cos^{-1}(-3/5)$ (c) $\tan^{-1}(-1/\sqrt{3}) + \cot^{-1}(1/\sqrt{3})$

(hint : put$\sin^{-1}3/5 = x$ then we got sin x = 3/5 and we can find cos x. In the same way (b) part will also be solved.)

CLASS – XII
ENGLISH (VISTAS)

THE TIGER KING

The Maharaja of Pratibandapuram was known as 'The Tiger King'. The chief astrologer predicted that the king would meet his death by a tiger. So the king hunted a tiger to prove the prophecy wrong. The astrologer said that the king would kill 99 tigers but he would be killed by the 100th tiger.

The Maharaja banned tiger hunting (excluding himself) in his kingdom. Even he did not give permission to a high rank British Officer. To please this officer (as he had realized that he could lose his kingdom); he sent fifty diamond rings for his wife to select one or two of them. But the greedy lady kept all of them .The king had to spend three lakh rupees in order to save his kingdom.

All the seventy tigers in the kingdom were killed by the king.There were no more tigers. So he decided to marry the princess whose kingdom had maximum number of tigers. He killed 99 tigers but still one was left to complete the target.

The dewan arranged a tiger from Madras zoo. It was very old & weak. He left it in the forest. The king shot it & went back to his palace. After his departure; the hunters noticed that it was still alive. They were so much scared of the king that they did not dare tell the truth. One of them killed it.The king was very happy that he had completed his target and proved the prophecy wrong.

It was the birthday of the king's son. The king purchased a wooden tiger for his son. It was not carved properly. Tiny slivers of wood stood up. One of the slivers pierced the Maharaja's right hand while playing with his son. He caught infection. He was operated but useless. He died. In this way the prophecy proved to be wrong.

EXERCISE:

1.What considerations influenced the Tiger King to get married? (30-40 words)

2. The astrologer's prediction about the death of the Tiger King came to be true. Do you agree with this statement? (120-150 words)

Study Material For Class XII (English—An Elementary School Class room in a Slum)

Stephen Spender in ' An Elementary School Classroom in a Slum'; through the example of slum children; attacks those who are exploiting the weaker sections of society.

In the stanza 1; the poet describes the pathetic and miserable condition of the children sitting in a classroom in a slum school.

In the stanza 2; the poet describes the dirty classroom. The walls are pale and dirty, which give an unpleasant feeling.

In the stanza 3; he says that the portrait of Shakespeare and world map which is in the classroom; is meaningless for these children. There is no world beyond their poverty hunger and hopelessness. All of their life is being destroyed here in the slum.

In the stanza 4; the poet suggests to provide quality education to these children and only education can help them immensely.

QUESTIONS:

I.   What does Stephen Spender want to be done for the children of the school in a slum?

II. How do we know that children at the elementary school are coming from a slum?

III. To whom does the poet in the poem make an appeal? What is his appeal?

IV. What message does the poet convey through the poem?

V.   Why do you think Shakespeare is wicked and the map 'a bad example' to these slum children?

WRITING SKILL PRACTICE:

I.   You carried a hit and run accident victim to a local hospital. You were shocked to see that in its casualty ward the conditions were chaotic. The patient was attended to after a lot of precious time was lost. You are Deepak/ Deepa, A-114, Roop Nagar, Delhi. Write a letter of complaint in 120-150 words to the Chief Medical Officer of the hospital.

II. 'Rain harvesting is the only solution to water crisis in the present times'. Write a debate either for or against the motion in 150-200 words. You are Sujatha/ Ajith.

III. Rising prices of essential commodities make life difficult for the common man. You are Nalini/Ranbir. Write an article in 150-200 words describing the causes, possible solutions and how students can help their parents to cope with the problem.

IV. You are Vinod / Vineetha, General Manager, Global Solutions, Meerut. You want to rent a bungalow to be used as guest house. It should have all the modern amenities. Draft a suitable advertisement in not more than 50 words to be published in a local newspaper.

कक्षा- बारहवीं।
विषय- हिंदी

I अपठितगद्यांश

1. निम्नलिखितगद्यांशकोध्यानपूर्वकपढ़करपूछेगएप्रश्नोंकेउत्तरलिखिए:

दैनिकजीवनमेंहमअनेकलोगोंसेमिलतेहैं, जोविभिन्नप्रकारकेकामकरतेहैं- सड़कपरठेलालगानेवाला, दूधवाला, नगरनिगमकासफाईकर्मी, बसकंडक्टर, स्कूलअध्यापक, हमारासहपाठीऔरऐसेहीकईअन्यलोग।शिक्षा, वेतन,

परंपरागतचलनऔरव्यवसायकेस्तरपरकुछलोगनिम्नस्तरपरकार्यकरतेहैंतोकुछउच्चस्तरपर।एकमालीकेकार्य कोसरकारीकार्यालयकेकिसीसचिवकेकार्यसेअतिनिम्नस्तरकामानाजाताहै, किंतुयदियहीअपनेकार्यकोकुशलतापूर्वककरताहैऔरउत्कृष्टसेवाएँप्रदानकरताहैतोउसकाकार्यउससचिवके कार्यसेकहींबेहतरहै, जोअपनेकाममेंढिलाईबरतताहैतथाअपनेउत्तरदायित्वोंकानिर्वाहनहींकरता।क्याआपऐसेसचिवकोएकआदर्श अधिकारीकहसकतेहैं? वास्तवमेंपदमहत्त्वपूर्णनहींहै, बल्किमहत्त्वपूर्णहोताहै, कार्यकेप्रतिसमर्पण- भावऔरकार्य-प्रणालीमेंपारदर्शिता।

इससंदर्भमेंगाँधीजीसेउत्कृष्टउदाहरणऔरकिसकादियाजासकताहै, जिन्होंनेअपनेहरकार्यकोगरिमामयमानतेहुएकिया।वेअपनेसहयोगियोंकोश्रमकीगरिमाकीसीखदियाकरतेथे।द

क्षिणअफ्रीकामेंभारतीयलोगोंकेलिएसंघर्षकरतेहुएउन्होंनेसफ़ाईकरनेजैसेकार्यकोभीकभीनीचानहींसमझाऔर इसीकारणस्वयंउनकीपत्नीकस्तूरबासेभीउनकेमतभेदहोगएथे।

बाबाआमटेनेसमाजद्वारातिरस्कृतकुष्ठरोगियोंकीसेवामेंअपनासमस्तजीवनसमर्पितकरदिया।सुंदरलालबहुगुणा नेअपनेप्रसिद्ध 'चिपकोआंदोलन' केमाध्यमसेपेड़ोंकोसंरक्षणप्रदानकिया।फादरडेमियनऑफमोलोकाई, मार्टिनलूथरकिंगऔरमदरटेरेसाजैसीमहानआत्माओंनेइसीसत्यकोग्रहणकिया।इनमेंसेकिसीनेभीकोईसत्ताप्राप्त नहींकी, बल्किअपनेजन-

कल्याणकारीकार्योंसेलोगोंकेदिलोंपरशासनकिया।गाँधीजीकास्वतंत्रताकेलिएसंघर्षउनकेजीवनकाएकपहलूहै, किंतुउनकामानसिकक्षितिजवास्तवमेंएकराष्ट्रकीसीमाओंमेंबँधाहुआनहींथा।उन्होंनेसभीलोगोंमेंईश्वरकेदर्शनकिए ।यहीकारणथाकिकभीकिसीपंचायततककेसदस्यनहींबननेवालेगाँधीजीकीजबमृत्युहुईतोअमेरिकाकाराष्ट्रध्व जभीझुकादियागयाथा।

प्रश्न :

(क) विभिन्नव्यवसायकरनेवालेलोगोंकेसमाजमेंनिम्नस्तरऔरउच्चस्तरकोकिसआधारपरतयकियाजाताहै।

(ख) एकमालीअथवासफाईकर्मीकाकार्यकिसीसचिवकेकार्यसेबेहतरकैसेमानाजासकताहै?

(ग) गाँधीजीकामकेप्रतिक्यादृष्टिकोणरखतेथे।उनकाअपनीपत्नीकेसाथक्योंमतभेदहोगया?

(घ) बाबाआमटे, सुंदरलालबहुगुणा, मदरटेरेसाआदिकाउल्लेखक्योंकियागयाहै ?

(ङ) गाँधीजीकीमृत्युपरअमेरिकाकाराष्ट्रध्वजक्योंझुकादियागया?

(च) उपर्युक्तगद्यांशकेलिएउपयुक्तशीर्षकलिखिए।

2. निम्नलिखितगद्यांशकोध्यानपूर्वकपढ़करपूछेगएप्रश्नोंकेउत्तरलिखिए :

गंगाभारतकीएकअत्यन्तपवित्रनदीहै, जिसकाजलकाफ़ीदिनोंतकरखनेकेबावजूदअशुद्धनहीं होताजबकिसाधारणजलकुछदिनोंमेंहीसड़जाताहै।गंगाकाउद्गमस्थलगंगोत्रीयागोमुखहै। गोमुखसेभागीरथीनदीनिकलतीहैऔरदेवप्रयागनामकस्थानपरअलकनंदानदीसेमिलकरआगे गंगाकेरूपमेंप्रवाहितहोतीहै।भागीरथीकेदेवप्रयागतकआते-आतेइसमेंकुछचट्टानेंघुलजातीहैं जिससेइसकेजलमेंऐसीक्षमतापैदाहोजातीहैजोउसकेपानीकोसड़नेनहींदेती।

हरनदीकेजलमेंकुछखासतरहकेपदार्थघुलेरहतेहैंजोउसकीविशिष्टजैविकसंरचनाकेलिए उत्तरदायीहोतेहैं।येघुलेहुएपदार्थपानीमेंकुछखासतरहकेबैक्टीरियाकोपनपनेदेतेहैंतोकुछ कोनहीं।कुछखासतरहकेबैक्टीरियाहीपानीकीसड़नकेलिएउत्तरदायीहोतेहैंतोकुछपानीमें सड़नपैदाकरनेवालेकीटाणुओंकोरोकनेमेंसहायकहोतेहैं।वैज्ञानिकशोधोंसेपताचलताहैकि

गंगाकेपानीमेंभीऐसेबैक्टीरियाहैंजोगंगाकेपानीमेंसड़नपैदाकरनेवालेकीटाणुओंकोपनपने हीनहींदेतेइसलिएगंगाकापानीकाफ़ीलंबेसमयतकखराबनहींहोताऔरपवित्रमानाजाता हमारामनभीगंगाकेपानीकीतरहहीहोनाचाहिएतभीवहनिर्मलमानाजाएगा।जिसप्रकारपानी कोसड़नेसेरोकनेकेलिएउसमेंउपयोगीबैक्टीरियाकीउपस्थितिअनिवार्यहै, उसीप्रकारमनमें विचारोंकेप्रदूषणकोरोकनेकेलिएसकारात्मकविचारोंकेनिरंतरप्रवाहकीभीआवश्यकताहै।हम अपनेमनकोसकारात्मकविचाररूपीबैक्टीरियाद्वाराआप्लावितकरकेहीगलतविचारोंकोप्रविष्ट होनेसेरोकसकतेहैं।जबभीकोईनकारात्मकविचारउत्पन्नहोसकारात्मकविचारद्वाराउसे समाप्तकरदीजिए।

प्रश्न

(क) गंगाकेजलऔरसाधारणपानीमेंक्याअंतरहै?

(ख) गंगाकेउद्गमस्थलकोकिसनामसेजानाजाताहै? इसनदीकोगंगानामकैसेमिलताहै?

(ग) भागीरथीसेदेवप्रयागतककाकासफ़रगंगाकेलिएकिसतरहलाभदायीसिद्धहोताहै?

(घ) बैक्टीरियाहीपानीमेंसड़नपैदाकरतेहैंऔरबैक्टीरियाहीपानीकीसड़नरोकतेहैं, कैसे? स्पष्टकीजिए।

(ङ) मनकोनिर्मलरखनेकेलिएक्याउपायबतायागयाहै?

(च) उपर्युक्तगद्यांशकाउचितशीर्षकदीजिए।

II- रचनात्मकलेखन

1. निम्नलिखितविषयोंमेंसेकिसीदोविषयपर 80 से 100 शब्दोंमेंएकअनुच्छेदलिखिए–

(क) आधुनिकजीवन–शैलीएवंबढ़तीस्वास्थ्यसमस्याएँ

संकेत–बिंदु–आधुनिकयुगएवंअव्यवस्थितजीवनशैली, आचार–विचार, जीवनमूल्योंआदिमेंअंतर, बदलतापरिवेश, समयकीकमी, कार्यकीअधिकताएवंभौतिकसाधनजुटानेकीहोड़, उच्चरक्तचाप, शुगर, मोटापाआदिसेपीड़ित, इससेबचनेकेउपाय, दिनचर्याकोव्यवस्थितकरनेकाआह्वान।

(ख) बेटीबचाओ, बेटीपढ़ाओ

संकेतबिंदु – कन्याभ्रूणहत्याजैसीबुराईभारतीयसमाजकाकलंक, कन्याओंकेप्रतिसमाजकीदूषितसोच, इसककारण, बेटीकोबिल्कुलबेटेकीतरहमानने, पालनेतथापढ़ानेकीसोचविकसितहो, इसदिशामेंसरकारीप्रयासोंकाउल्लेख, बेटा–बेटीकोएकसमानमाननेकासंकल्प।

(ग) बूढ़ेमाता–पिताकेलिएवृद्धाश्रमक्यों?

संकेतबिंदु–एकलपरिवारकीअपनीदीवारोंतकसिमटतीसोच, माता–पिताकोभीउपयोगी–

अनुपयोगीकीश्रेणीमेंरखनेवालाउपयोगितावादीदृष्टिकोण, भागमभागभराजीवन, संस्कारोंकीकमी,

संवेदनहीनता, माता–पिताकोखुदसेजोड़ेरखनेकाआह्वानआदि।

2.

प्रशासनद्वारालगाईगईरोककेबावजूदआपकेज़िलेमेंस्थानीयनदीसेबड़ीमात्रामेंरेतएवंमिट्टीकाअवैधरूपसेउत्ख
ननकरवायाजारहाहै।आपएकजागरूकनागरिकहोनेकेनातेइससंदर्भमें, ज़िलाधिकारी, देहरादूनको 80 से
100 शब्दोंमेंपत्रलिखिए।

अथवा

अमरउजाला, देहरादूनकेसंपादकको 80 से 100 शब्दोंमेंपत्रलिखकरअपनेक्षेत्रमेंफलते–
फूलतेनशेकेअवैधकारोबारकेबारेमेंसमाचारप्रकाशितकरनेकाअनुरोधकीजिए।नवयुवकोंकोइससेहोनेवाली
हानियोंकाभीउल्लेखकीजिए।

PHYSICAL EDUCATION
CLASS-12(UNIT-2)

NOTE: Read Unit 2 from your PDF file and answer the following.

1- List down the function of Balance diet?

Q.2- Mention the types of Carbohydrates?

Q.3- Write note on Pitfall of dieting?

Q.4- What do you mean by Food Intolerance?

Q.5- Describe the role of diet on performance?

Q.6- Justify any six myths about diet?

Q.7- Describe the meaning of Balanced Diet? What is the importance of Balanced Diet?

Q.8- Explain the role of Micronutrients in our diet. Mention their sources?

Q.9- Explain the role of Fats. Why excessive Fats are harmful? Mention its sources.