



INDIAN SCHOOL SOHAR
XI-SCIENCE (2016-17)
Holiday Homework

| SUBJECT | TOPICS |
|-----------------------|--|
| ENGLISH | <p>BOOK REVIEW: CONDUCTION: The students read a book written by George Eliot or H. G. Wells.. The book should be read at their own leisure. Main events, characters, important statements and dialogues to be noted (cover page carrying an illustration, introduction which includes name of the author, publisher & date of publication, Brief Summary, Critical Assessment depicting theme and message, character sketch, opinion and recommendation)</p> <p>Tabulation: Total marks: 10, Format and presentation - 4, Critical approach- 3 & Use of language -3 marks BBC Assignments: Work Sheet:17, 18, 28 , 45, 76 &102 Long Answer Questions: Q. No. 1 &10</p> |
| PHYSICS | <ul style="list-style-type: none">• Project to be prepared for the practical• Complete practical no. 6 & 7 in the Record book• Solve 15 numerical each from chapters 2, 3 and 4 from any reference book |
| CHEMISTRY | <ul style="list-style-type: none">• Complete the worksheet in 'Chemical Bonding and Molecular Structure'• Prepare Project report as discussed in the class |
| BIOLOGY | <ul style="list-style-type: none">• Complete the Practical record work• Project Introduction(as discussed in the class)• Complete the worksheet marked in the reference book Together With |
| MATHS | <ul style="list-style-type: none">• Solve problems of Chapter 1,2,3 &4 from Exemplar book. E Book is available on the school website. |
| INFORMATICS PRACTICES | <ul style="list-style-type: none">• Solve the given worksheet |
| PHYSICAL EDUCATION | <ul style="list-style-type: none">• Complete the practical no .1, 2, 3 and 4 in the record book.• Practice for physical fitness test and major game skill.• Make a report on Rio Olympic Games -2016.• Improve your hand writing as discussed in the class. |

Solve all worksheets in ruled sheets

Date of submission: 14 August, 2016



INDIAN SCHOOL SOHAR
CHEMISTRY WORKSHEET
CHEMICAL BONDING

Class : XI

Date of submission : 14th Aug 2016

1. Write the electron dot structure for the following ions and molecules :
 - a) Cl^{-1}
 - b) CCl_4
 - c) PH_3
 - d) CaCl_2
2. Write three differences between polar and non polar covalent compounds.
3. Why do atoms try to attain inert gas configuration? How do they attain this configuration ?
4. What is the shape of the molecule whose central atom contains
 - a) 5 bond pair of electrons and 1 lone pair of electrons
 - b) 3 bond pair of electrons and 1 lone pair of electrons
 - c) 2 bond pair of electrons and 2 lone pair of electrons
5. Explain the shape and bond angle of ethylene (C_2H_4) based on hybridization.
6. How does the following change when bond order increases?
 - a) Bond length
 - b) Bond dissociation enthalpy
7. Explain the formation of hydrogen molecule based on valence bond theory.
8. Arrange the following molecules in the increasing order of their bond angles:
 BCl_3 , CH_4 , C_2H_2 , H_2O , NH_3
9. Predict the shape of the following molecules based on VSEPR theory :
 - a) XeF_4
 - b) BrF_3
 - c) PCl_5
10. What kind of hybridization does the central atom undergo in the following molecules ?
 - a) SF_6
 - b) NH_4^+
 - c) BF_3
11. Give an example of a molecule whose central atom has
 - a) less than 8 electrons
 - b) more than 8 electrons
 - c) odd number of electrons
12. Differentiate between covalent and coordinate covalent bond giving suitable examples.
13. How is a pi bond formed? Why does it not allow free rotation about the molecular axis ?

14. Explain why lone pair-lone pair repulsions are more than lone pair-bond pair and bond pair-bond pair repulsions?
15. Account for the following ;
- Sigma bond is stronger than pi bond.
 - In CH_4 , all the four C-H bonds are equivalent.
 - BeCl_2 is linear with bond angle 180° .
 - Boiling point of ortho nitrophenol is less than para nitrophenol.
 - In CO_2 , the C-O bond is polar but the molecule is non polar.
 - NaCl is soluble in water but CCl_4 is insoluble in water.
 - HF is more polar than HI .
 - HCl is polar but H_2 and Cl_2 are non polar.
16. Explain the factors which favour the formation of ionic compounds.
17. How does the nature of a bond depend on electronegativity of the atoms ? Explain.
18. Based on Fajan's rule, arrange the following cations in the increasing order of their polarizing power : Na^+ , Mg^{2+} , Al^{3+} . Predict which of the following molecules has maximum covalent character : NaCl , MgCl_2 , AlCl_3
19. An element X has 2 electrons in the outermost shell of its atom and combines with an element Y having 7 electrons in the outermost shell of its atom.
- Write the formula of the compound formed.
 - What type of bond will be formed between X and Y.
 - Is it soluble in water or benzene? Justify.
20. Write the electronic configuration of N_2 , N_2^+ and N_2^- . Calculate their bond order and arrange them in the increasing order of their bond order.



INDIAN SCHOOL SOHAR
Holiday Home Work Sheet(2016-17)
Subject: Informatics Practices

Submission date: -08-2016

Name: _____ Class: XI Sec: _____ Roll No. _____

Q) Write SQL commands for the queries given from (a) to (p) based on the relation LIBRARY given in Text Book:

- a) Display the title and price of all books with price between 100 and 300 in descending order of title.
- b) Display title and author of all books having type Prog and published by BPB.
- c) Add one column DATE_OF_PUBLISHING with datatype as date.
- d) Display a report with subject, author, price and discounted price(10% of price) for each book in the table.
- e) Insert a new book in the table LIBRARY with the following data: 11, 'CompSC', 'C++', 'RITA', 'KHANNA', 1, 225.
- f) Display a report with title, author, subject and total amount of all books.
(Total Amount= quantity*price)
- g) List unique publisher from the table in uppercase.
- h) Display the title, publisher, position of character 'a' in publisher and the incremented price as price+50.
- i) List the details of all books where the second letter of book name is 'a'.
- j) Increase the price of all books whose publisher is BPB by Rs 50.

- k) Add a primary key constraint to the Title column.
- l) Write an Sql function to remove leading & trailing space from a character expression P,where P=" #McGraw#Hill#####"(where # denotes blank space).
- m) Update the table set quantity as 6 ,where quantity is 3.
- n) Add a not null constraint to the table on column Title.
- o) Write the command to set the price field of all books to 800 corresponding to Publisher="McGraw".
- p) Delete the data of Turbo C++,Guide network and COBOL.
- q) Delete the table physically.

Write the output of the following SQL Commands:

- i) Select $\text{MOD}(30.500,5)+\text{ROUND}(100.50,1)+\text{TRUNCATE}(100.5,-2)$;
- ii) Select $\text{LENGTH}(\text{LOWER}(\text{SUBSTR}(\text{TRIM}(' \text{INDIA IS GREAT} '), 1, 5)))$;
- iii) Select $\text{INSTR}(\text{SUBSTR}("RAMESH SHARMA",-3),'A')$;
- iv) Select $\text{MOD}(9*5,9/3)+\text{SQRT}(25)$;
- v) Select $\text{SIGN}(-7*5\%2+3/2)$;
- vi) Select $\text{CONCAT}(\text{UPPER}(\text{LEFT}(\text{Subject},4), \text{Publisher}))$ from LIBRARY;