

SCHEME OF WORK 2017-18

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|------|--|---|---|---|--|---------|
| 1 | | <u>Students will be able to</u> <ul style="list-style-type: none"> Define chemical equilibrium. Define irreversible and reversible reactions Know about forward and backward reaction. | <u>Teachers will</u> <ul style="list-style-type: none"> Write the topic on black/white board Explain the topic (by involving students) Write some reactions on board. | <u>Teachers will ask questions like</u> <ul style="list-style-type: none"> What is a chemical reaction? What are reactants and products. Define irreversible reaction? What is chemical equilibrium | <u>Students should</u> <ul style="list-style-type: none"> No Homework | |
| 2 | <u>Reversible reaction and Dynamic equilibrium</u> | <ul style="list-style-type: none"> Define chemical equilibrium in terms of reversible reaction Define dynamic equilibrium Write equations of irreversible and reactions and describe. | <ul style="list-style-type: none"> Write the topic on black/white board Give examples of irreversible and reversible reactions. Draw the diagram of equilibrium state | <ul style="list-style-type: none"> What are reversible reactions? Define the term dynamic equilibrium. | <ul style="list-style-type: none"> Q2 (iv, v) | |
| 3 | <u>Law of mass action</u> | <ul style="list-style-type: none"> Define law of mass action Derive an expression for equilibrium constant | <ul style="list-style-type: none"> Write the topic on black/white board. Explain the topic on board by deriving expression for equilibrium Give activity to students to write equilibrium constant expression for some reactions | <ul style="list-style-type: none"> Define law of mass action What is K_c Define K_c | <ul style="list-style-type: none"> Question#1 from exercise | |
| 4 | <u>Equilibrium constant and its units. Equilibrium</u> | <ul style="list-style-type: none"> Know the units of K_c Calculate the value | <ul style="list-style-type: none"> Write the name of the topic on black/white board | <ul style="list-style-type: none"> What are the units of K_c How value of K_c | <ul style="list-style-type: none"> Question#3 from exercise | |

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| | <u>calculations</u> | of Kc | <ul style="list-style-type: none"> Solve examples# 9.1 and 9.2 Explain the example#9.3 from text book | determine the direction of reaction | | |
| 5 | <u>Importance of equilibrium constant</u> | <ul style="list-style-type: none"> Know how Kc is applied to determine the direction of reaction. Extent of reaction Effect of external conditions on the position of equilibrium. | <ul style="list-style-type: none"> Write the name of the topic on black/white board Explain the topic from text book (by interactive lecturing) Make small groups of students for discussion Related video clips are incorporated | <ul style="list-style-type: none"> What are the applications of Kc How the value of Kc determine the extent of reaction | <ul style="list-style-type: none"> No homework | |
| 6 | <u>Conditions for equilibrium</u> | <ul style="list-style-type: none"> Know the necessary to describe. Conditions of equilibrium. Recognize ways to find equilibrium. | <ul style="list-style-type: none"> Write the name of the topic on black/white board. Explain the topic by using text book. Involve the students by asking some questions. | <ul style="list-style-type: none"> What are the conditions for equilibrium What is the effect of catalyst on chemical equilibrium | <ul style="list-style-type: none"> Question#2 from exercise Solve MCQs from exercise | |
| 7 | <u>Test</u> | <ul style="list-style-type: none"> To get feedback about students achievement on chapter 9. | <ul style="list-style-type: none"> Write the name of the test topic on black/white board Divide students in different groups for different topics. Check their test and evaluate | <ul style="list-style-type: none"> The teacher will provide some questions to the students for test | <ul style="list-style-type: none"> No homework | |
| 8 | <u>Introduction of chapter#10 Acids, Bases and Salts</u> | <ul style="list-style-type: none"> Know the difference between acids bases and salts | <ul style="list-style-type: none"> Write the name of the topic on black/white board Explain the topic (by | <ul style="list-style-type: none"> What are acids, bases and salts What is the difference between | <ul style="list-style-type: none"> Prepare a list of Acids, bases and salts | |

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| | | <ul style="list-style-type: none"> Recognize the examples of acids bases and salts. | <ul style="list-style-type: none"> interactive lecturing) Give some common examples of Acids and Bases Write the properties of Acids and bases on board | physical properties of acid and bases | | |
| 9. | <u>The Arrhenius concept of acid and base.</u> | <ul style="list-style-type: none"> Define and give examples of Arrhenius acids and bases. | <ul style="list-style-type: none"> Write the name of the topic on black/white board Explain the topic (by interactive lecturing) Write some reactions of Acids and Bases on board | <ul style="list-style-type: none"> According to Arrhenius what are acids and bases Give examples of Arrhenius acids and bases | <ul style="list-style-type: none"> Define Arrhenius acids and bases Give 5 examples of both acids and bases | |
| 10. | <u>Bronsted and lowry concept</u> | <ul style="list-style-type: none"> Use the Bronsted and lowry theory to classify substances as acids, bases or as proton donor, proton acceptors. | <ul style="list-style-type: none"> Write the name of the topic on black/white board Write definitions of acids and bases on board Write some reactions Explain the topic (by interactive lecturing) | <ul style="list-style-type: none"> According to bronstedlowry theory what are acids and bases What are conjugate acids and conjugate bases | <ul style="list-style-type: none"> Define acids and bases with respect to Bronsted and lowry concept Define conjugate acid and bases | |
| 11. | <u>Monoprotic acid, polyprotic acid and Amphoteric substance.</u> | <ul style="list-style-type: none"> Differentiate between monoprotic acids, polyprotic acids and amphoteric substances. | <ul style="list-style-type: none"> Write the name of the topic on black/white board Define all the important definitions Give examples from text book Write some important reactions on board. | <ul style="list-style-type: none"> On the basis of number of protons how many types of acids are present What are amphoteric substances. | <ul style="list-style-type: none"> Short Question#2 from exercise | |
| 12. | <u>The lewis concept of Acid and Base</u> | <ul style="list-style-type: none"> Classify substances as lewis acids or | <ul style="list-style-type: none"> Write the name of the topic on black/white board | <ul style="list-style-type: none"> Define lewis acids and bases Give some | <ul style="list-style-type: none"> Long Question#4 and 5 from exercise. | |

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| | | lewis bases. | <ul style="list-style-type: none"> Write definitions of lewis acids and bases on board Explain the topic (by interactive lecturing) Write some chemical reactions of lewis acids and bases. | examples of acids and bases <ul style="list-style-type: none"> What is the difference between lewis acid base and Bronstedlowry acid and base. | | |
| 13. | <u>Strong and weak acids, Strong and weak bases</u> | <ul style="list-style-type: none"> Know the division of acids and bases on the basis of strength. | <ul style="list-style-type: none"> Write the name of the topic on black/white board Explain the topic from text book (by interactive lecturing) Give some examples of strong and weak acids and bases. | <ul style="list-style-type: none"> What is the difference between strong and weak acid Write the ionization of strong and weak acid and bases. | <ul style="list-style-type: none"> Prepare a list of strong and weak acids and bases Solve MCQs from exercise | |
| 14. | <u>Practical#07 Acids and bases Millat practical notebook</u> | <ul style="list-style-type: none"> Know how we can differentiate practically acids from bases. | <ul style="list-style-type: none"> Write the name of the topic on black/white board Demonstrate the practical and perform in front of students Make small groups of students to perform practical Help the students to perform practical accurately. | <ul style="list-style-type: none"> The teacher will check procedure through which students perform practical Ask some relevant questions to the students from practical. | <ul style="list-style-type: none"> Students will write practical in practical note book. | |
| 15. | <u>pH scale (H ion concentration)</u> | <ul style="list-style-type: none"> Write the equation for self-ionization of water. | <ul style="list-style-type: none"> Write the name of the topic on black/white board Write equations of self-ionization of water. | <ul style="list-style-type: none"> What is the pH scale Define Kw | <ul style="list-style-type: none"> Long Question#2 from exercise | |

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| | | | <ul style="list-style-type: none"> Explain the topic from text book. | | | |
| 16. | <u>pH and pOH scales</u> | <ul style="list-style-type: none"> Know about pH and pOH scales Range of pH Scales Define pH and pOH | <ul style="list-style-type: none"> Write the name of the topic on black/white board Explain the topic (by interactive lecturing) Write the equations on board. | <ul style="list-style-type: none"> Define pH and pOH Which scientist proposed this scale. | <ul style="list-style-type: none"> No homework | |
| 17. | <u>Examples of pH and pOH and Strength of solution in terms of pH value</u> | <ul style="list-style-type: none"> Determine the pH and pOH of different concentration of solutions Classify solution as neutral, acidic or basic. | <ul style="list-style-type: none"> Write the name of the topic on black/white board Write the pH range of solutions on board and explain where acids, bases or neutral salts are present Explain the examples of pH and pOH from text book. | <ul style="list-style-type: none"> What is the pH of neutral solution In which range of pH weak bases are present. | <ul style="list-style-type: none"> Draw the pH scale and mention the ranges in which strong and weak acids and bases are present Long Question#4 and 5 from exercise. | |
| 18. | <u>Salts, Preparation of salts and Types of salts.</u> | <ul style="list-style-type: none"> Know what are salts How salts are formed What are different types of salts. | <ul style="list-style-type: none"> Write the name of the topic on black/white board Write the neutralization reaction Explain the topic (by interactive lecturing) Give examples of some salts. | <ul style="list-style-type: none"> Define salts What is neutralization reaction How many types of salts are present. | <ul style="list-style-type: none"> Long Question#1 from exercise | |
| 19. | <u>Uses of salts and Neutralization</u> | <ul style="list-style-type: none"> Complete and balance neutralization reaction. | <ul style="list-style-type: none"> Write the name of the topic on black/white board Explain the topic (by | <ul style="list-style-type: none"> Which salt is also called baking soda What is epsom salt What are the uses of | <ul style="list-style-type: none"> No homework | |

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| | | <ul style="list-style-type: none"> Know the uses of salts. | <ul style="list-style-type: none"> interactive lecturing) Write reactions on board Related video clips are incorporated. | $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$ | | |
| 20 | <u>Common ion effect</u> | <ul style="list-style-type: none"> Know how solubility of one electrolyte decreases by the addition of another electrolyte | <ul style="list-style-type: none"> Write the name of the topic on black/white board Explain the topic (by interactive lecturing) Write important reactions on board. | <ul style="list-style-type: none"> What is common ion effect What happen to solution of NH_4OH when we add NH_4Cl | <ul style="list-style-type: none"> Write note on common ion effect | |
| 21. | <u>Test</u> | <ul style="list-style-type: none"> After completion of chapter students will be able to tell about all aspects of Acids, Bases and Salts | <ul style="list-style-type: none"> Students will be seated sequentially according to their roll numbers and provided with test which are then submitted to teachers on completion within the time provided. | <ul style="list-style-type: none"> After making the test teacher will come to know that up to what extent students have learned chapter acids, bases and salts | <ul style="list-style-type: none"> No homework | |
| 22. | <u>Practical no 6 will be incorporated for students from Millat practical notebook.</u> | <ul style="list-style-type: none"> Know how to differentiate neutral substances as acids and bases. | <ul style="list-style-type: none"> Write the name of the practical on black/white board Demonstrate the practical and perform in front of students Make small groups of students to perform practical Help the students to perform practical accurately. | <ul style="list-style-type: none"> The teacher will check procedure through which students perform practical Ask some relevant questions from the students related to practical | <ul style="list-style-type: none"> Students will write practical on the practical notebook | |
| 23 | <u>Chap#11 Organic Chemistry</u> | <ul style="list-style-type: none"> Know historical background of organic compounds | <ul style="list-style-type: none"> Write the name of the topic on black/white board Explain the topic (by | <ul style="list-style-type: none"> What is the difference between organic and inorganic compound | <ul style="list-style-type: none"> | |

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| | | | <ul style="list-style-type: none"> interactive lecturing) Write the classical definition of organic compound on board. | <ul style="list-style-type: none"> What is the classical concept about organic compounds What is vital force theory. | | |
| 24 | <u>Organic compounds and their characteristics</u> | <ul style="list-style-type: none"> Define organic chemistry Identify some general characteristics of organic compounds | <ul style="list-style-type: none"> Write the name of the topic on black/white board Explain the topic (by interactive lecturing) Write some general characteristics on board Related video clips are incorporated | <ul style="list-style-type: none"> What are the main constituents of organic compounds Why organic compounds are volatile in nature. | <ul style="list-style-type: none"> Short Question#2 from exercise Long Question#3 from exercise. | |
| 25 | <u>Sources of organic compounds and uses.</u> | <ul style="list-style-type: none"> Know the sources of organic compounds Uses of organic compounds | <ul style="list-style-type: none"> Write the name of the topic on black/white board Explain the sources from text book Write the uses on the board. | <ul style="list-style-type: none"> What are the main sources of organic compounds Which was the first organic compound made in laboratory | <ul style="list-style-type: none"> No homework | |
| 26 | <u>Alkanes and classification of alkanes</u> | <ul style="list-style-type: none"> Know the classification of Alkanes. Name alkanes upto decane | <ul style="list-style-type: none"> Write the name of the topic on black/white board Explain the topic (by interactive lecturing) Draw the structures of alkanes on board | <ul style="list-style-type: none"> What is the general formula of alkanes What is the difference between iso-butane and butane | <ul style="list-style-type: none"> List the first 10 alkanes and write the formulas | |
| 27. | <u>Naming of Alkanes</u> | <ul style="list-style-type: none"> Know the rules of naming alkanes Know the first ten names of alkanes and their | <ul style="list-style-type: none"> Write the name of the topic on black/white board Explain the topic (by interactive lecturing) | <ul style="list-style-type: none"> What is the ending of name while naming alkane What is the name of alkane having | <ul style="list-style-type: none"> Practice the naming of alkanes | |

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| | | structures. | <ul style="list-style-type: none"> Write some structures of alkanes on board Related video clips are incorporated. | general formula C_5H_{12} | | |
| 28. | <u>Alkyl radicals</u> | <ul style="list-style-type: none"> Convert alkanes to alkyl radicals. Differentiate between alkane and alkyl radical | <ul style="list-style-type: none"> Write the name of the topic on black/white board Define alkyl radicals Write the formula of different alkyl radicals | <ul style="list-style-type: none"> The students will perform activity 11.1 from chapter | <ul style="list-style-type: none"> Q#1 from exercise | |
| 29. | <u>Functional group</u> | <ul style="list-style-type: none"> Define functional group Differentiate between different organic compounds on the basis of their functional groups | <ul style="list-style-type: none"> Write the name of the topic on black/white board Define functional group Write different functional groups and names of classes of organic compounds. | <ul style="list-style-type: none"> What is functional group of alcohol Activity#2 from book. | <ul style="list-style-type: none"> Short Question#3 from exercise | |
| 30 | <u>Homologous series</u> | <ul style="list-style-type: none"> Know about homologous series | <ul style="list-style-type: none"> Write the name of the topic on black/white board Write the definition of homologous series Explain the topic (by interactive lecturing) | <ul style="list-style-type: none"> Define homologous series Students will perform activity#3 from chapter | <ul style="list-style-type: none"> Long Question#1 from exercise Objective and MCQs type questions | |
| 31 | <u>Test</u> | <ul style="list-style-type: none"> After completion of chapter students will be able to tell about all aspects of Organic chemistry. | <ul style="list-style-type: none"> Students will be seated sequentially according to their roll numbers and provided with test which are then submitted to teachers on completion within the time provided. | <ul style="list-style-type: none"> After making the test teacher will come to know that up to what extent students have learned chapter organic chemistry. | <ul style="list-style-type: none"> No homework | |
| 32 | <u>Practical#8 will be incorporated</u> | <ul style="list-style-type: none"> Differentiate between | <ul style="list-style-type: none"> Write the name of the practical on black/white | <ul style="list-style-type: none"> The teacher will check procedure | <ul style="list-style-type: none"> Students will write practical on | |

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| | <u>for students from Millat practical notebook.</u> | aldehydes and ketones. | board <ul style="list-style-type: none"> Demonstrate the practical and perform in front of students Make small groups of students to perform practical Help the students to perform practical accurately. | through which students perform practical <ul style="list-style-type: none"> Ask some relevant questions from the students related to practical. | the practical notebook. | |
| 33. | <u>Introduction of chapter#12 Hydrocarbons</u> | <ul style="list-style-type: none"> Characterize a hydrocarbon Know the classification of hydrocarbons. | <ul style="list-style-type: none"> Write the name of the topic on black/white board Explain the topic (by interactive lecturing) | <ul style="list-style-type: none"> What are hydrocarbons Differentiate between saturated and un saturated hydrocarbons | <ul style="list-style-type: none"> No homework | |
| 34. | <u>Alkanes</u> | <ul style="list-style-type: none"> Draw electron cross and dot structures of simple Alkanes. Know the physical states, melting and boiling point of first ten alkanes | <ul style="list-style-type: none"> Write the name of the topic on black/white board Explain the topic from book (by interactive lecturing) Draw dot and cross structures of simple alkanes | <ul style="list-style-type: none"> Why alkanes are also called paraffins What happens to melting and boiling point of alkanes when number of carbon increase | <ul style="list-style-type: none"> Short Q#1 and 3 from exercise | |
| 35. | <u>Preparation of Alkanes and their physical properties</u> | <ul style="list-style-type: none"> Know how to prepare alkanes from the hydrogenation of Alkenes and Alkynes. Reduction of alkyl halides. | <ul style="list-style-type: none"> Write the name of the topic on black/white board Write important reactions on board and explain them Write the physical properties on board | <ul style="list-style-type: none"> Why alkanes are insoluble in water Reduction of Alkyl halides takes place through which reducing agent | <ul style="list-style-type: none"> Long question #4 from exercise | |

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| 36. | <u>Chemical properties of Alkanes.</u> | <ul style="list-style-type: none"> Know how alkanes undergo hydrogenation and combustion reaction. | <ul style="list-style-type: none"> Write the name of the topic on black/white board Write chemical reactions on board Explain the reactions | <ul style="list-style-type: none"> What is combustion How halogenation of alkanes can take place | <ul style="list-style-type: none"> Short Q#6 from exercise | |
| 37. | <u>Alkenes and their preparation</u> | <ul style="list-style-type: none"> Know what are unsaturated hydrocarbons Write chemical equation for the preparation of alkanes | <ul style="list-style-type: none"> Write the name of the topic on black/white board Write the general formula of alkanes on board Explain the topic (by interactive lecturing) Write the important reactions on board. | <ul style="list-style-type: none"> What is the general formula of alkanes What are the methods of preparation of alkanes. | <ul style="list-style-type: none"> Short Q#5 from exercise | |
| 38. | <u>Chemical properties of Alkenes</u> | <ul style="list-style-type: none"> Know about the reactivity of alkanes Know about Baeyer's test | <ul style="list-style-type: none"> Write the name of the topic on black/white board Write different chemical reactions on board Perform activity 1 and 12 from text book. | <ul style="list-style-type: none"> How the unsaturation of alkanes can be determined What happens when bromine is added to alkanes | <ul style="list-style-type: none"> Long Q#2 from exercise | |
| 39. | <u>Alkynes and their preparation</u> | <ul style="list-style-type: none"> Know about alkynes. Write a balanced chemical equation for preparation of alkynes. | <ul style="list-style-type: none"> Write the name of the topic on black/white board Write the general formula of alkynes Write preparation reactions of alkynes. | <ul style="list-style-type: none"> Write the structure of acetylene What are different methods of preparation of alkynes. | <ul style="list-style-type: none"> Short Q#9 from exercise Long Q#4 from exercise. | |
| 40. | <u>Reaction of Alkynes</u> | <ul style="list-style-type: none"> Write chemical reaction of KMnO_4 with alkynes Know the | <ul style="list-style-type: none"> Write the chemical reactions of alkynes on black/white board Explain the topic (by interactive lecturing) | <ul style="list-style-type: none"> Why alkynes undergo addition reactions Which oxidizing agent is used in | <ul style="list-style-type: none"> Long Q#4 from exercise Objective questions from exercise | |

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| | | chemical properties of alkynes | | oxidation of alkynes | | |
| 41 | <u>Test</u> | <ul style="list-style-type: none"> After completion of chapter students will be able to tell about all aspects of Hydrocarbons. | <ul style="list-style-type: none"> Students will be seated sequentially according to their roll numbers and provided with test which are then submitted to teachers on completion within the time provided | <ul style="list-style-type: none"> After making the test teacher will come to know that up to what extent students have learned chapter organic chemistry. | <ul style="list-style-type: none"> No homework | |
| 42. | <u>Practical#12 will be incorporated for students from Millat practical notebook.</u> | <ul style="list-style-type: none"> Know how to differentiate between saturated and unsaturated hydrocarbons practically | <ul style="list-style-type: none"> Write the name of the practical on black/white board Demonstrate the practical and perform in front of students Make small groups of students to perform practical Help the students to perform practical accurately. | <ul style="list-style-type: none"> The teacher will check procedure through which students perform practical Ask some relevant questions from the students related to practical. | <ul style="list-style-type: none"> Students will write practical on the practical notebook. | |
| 43. | <u>Introduction of Chapter#13 Biochemistry</u> | <ul style="list-style-type: none"> Know about the essential bio elements, biomolecules present in the body | <ul style="list-style-type: none"> Write the name of the topic on black/white board Explain the topic (by interactive lecturing) Write names of essential elements on board. | <ul style="list-style-type: none"> Define biochemistry What are bio elements Name different biological molecules. | <ul style="list-style-type: none"> No homework | |
| 44. | <u>Carbohydrates and classification of carbohydrates (Monosaccharid</u> | <ul style="list-style-type: none"> Define carbohydrates Know about simple sugars | <ul style="list-style-type: none"> Write the name of the topic on black/white board Write definition of topic on board | <ul style="list-style-type: none"> Define carbohydrates What is the general formula of carbohydrates | <ul style="list-style-type: none"> Short Q#1 from exercise | |

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| | <u>es)</u> | | <ul style="list-style-type: none"> Draw the structures of simple sugars Explain the topic (by interactive lecturing) | <ul style="list-style-type: none"> What is the difference between glucose and fructose. | | |
| 45. | <u>Oligosaccharides and Polysaccharides</u> | <ul style="list-style-type: none"> Distinguish between mono, di and tri saccharides Recognize common di and tri saccharides | <ul style="list-style-type: none"> Write the name of the topic on black/white board Explain the topic from text book Draw the structure for glycosidic link | <ul style="list-style-type: none"> What are different disaccharides What is the molecular formula of raffinose. | <ul style="list-style-type: none"> Long Q#1 from exercise. | |
| 46. | <u>Sources and uses of Carbohydrates and proteins.</u> | <ul style="list-style-type: none"> Know the main sources of carbohydrates Define proteins. | <ul style="list-style-type: none"> Write the name of the topic on black/whiteboard Explain the topic (by interactive lecturing) Draw the structure of Amino acid on board. | <ul style="list-style-type: none"> Which poly saccharides are used in paper industry Give examples of different proteins. | <ul style="list-style-type: none"> Short Q#1 from exercise. | |
| 47. | <u>Bonding in protein molecules</u> | <ul style="list-style-type: none"> Describe bonding in a protein molecule. | <ul style="list-style-type: none"> Write the name of the topic on black/white board Explain the topic (by interactive lecturing) Write the structure of peptide chain on board. | <ul style="list-style-type: none"> What are essential elements of proteins What are essential amino acids How many types of bonding are present in protein molecule. | <ul style="list-style-type: none"> Short Q#2 from exercise LongQ#2 from exercise. | |
| 48. | <u>Sources and uses of proteins</u> | <ul style="list-style-type: none"> Explain the sources and uses of protein molecule. | <ul style="list-style-type: none"> Write the name of the topic on black/white board Explain the topic (by interactive lecturing) Perform activity#1 from this chapter | <ul style="list-style-type: none"> Which protein carry oxygen in blood Which types of proteins are present in nails and hair. | <ul style="list-style-type: none"> Short Q#3 from exercise. | |
| 49. | <u>Lipids,</u> | <ul style="list-style-type: none"> Explain the | <ul style="list-style-type: none"> Write the name of the | <ul style="list-style-type: none"> Define lipids | <ul style="list-style-type: none"> LongQ#3 from | |

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| | <u>Classification of lipids and sources of lipids</u> | <ul style="list-style-type: none"> sources of lipids Classify simple and complex lipids. | <ul style="list-style-type: none"> topic on black/white board Write the reaction of formation of lipids on board Explain the topic (by interactive lecturing) | <ul style="list-style-type: none"> Give examples of complex lipids What are different sources of lipids. | exercise | |
| 50. | <u>Uses of lipids and difference between fats and oils.</u> | <ul style="list-style-type: none"> Differentiate between fats and oils Explain the uses of lipids. | <ul style="list-style-type: none"> Write the name of the topic on black/white board Write the uses of lipids on board Draw the structures of oils and fats on board Explain the topic (by interactive lecturing) | <ul style="list-style-type: none"> What is the difference between saturated and unsaturated lipids What is the effect of lipids on nervous system | <ul style="list-style-type: none"> Short Q#4 from exercise | |
| 51. | <u>Nucleic acid and its types</u> | <ul style="list-style-type: none"> Describe the importance of nucleic acids. | <ul style="list-style-type: none"> Write the name of the topic on black/white board Explain the topic (by interactive lecturing). | <ul style="list-style-type: none"> When was nucleic acid discovered What is the difference between DNA and RNA | <ul style="list-style-type: none"> No homework | |
| 52. | <u>Composition and function of Nucleic acids</u> | <ul style="list-style-type: none"> Know the composition of nucleic acid | <ul style="list-style-type: none"> Write the name of the topic on black/white board Explain the topic (by interactive lecturing) Use simulation method to explain | <ul style="list-style-type: none"> How many types of nitrogenous bases are present What is the difference between DNA and RNA | <ul style="list-style-type: none"> Short Q#5 from exercise Long Q#4 from exercise | |
| 53. | <u>Vitamins and fat soluble vitamins</u> | <ul style="list-style-type: none"> Define and explain vitamins | <ul style="list-style-type: none"> Write the name of the topic on black/white board Explain the topic (by interactive lecturing) Use simulation method. | <ul style="list-style-type: none"> What are vitamins How many types of vitamins are present | <ul style="list-style-type: none"> No homework | |

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| 54. | <u>Water soluble vitamins</u> | <ul style="list-style-type: none"> Know the importance of vitamins | <ul style="list-style-type: none"> Write the name of the topic on black/white board Explain the topic (by interactive lecturing) | <ul style="list-style-type: none"> Why vitamin B is also called vitamin B complex Which vitamin is also called ascorbic acid | <ul style="list-style-type: none"> LongQ#5 from exercise Objective questions from exercise | |
| 55. | <u>Test</u> | <ul style="list-style-type: none"> After completion of chapter students will be able to tell about all aspects of Biochemistry | <ul style="list-style-type: none"> Students will be seated sequentially according to their roll numbers and provided with test which are then submitted to teachers on completion within the time provided | <ul style="list-style-type: none"> After making the test teacher will come to know that up to what extent students have learned chapter organic chemistry. | <ul style="list-style-type: none"> No homework | |
| 56. | <u>Practical#13 will be incorporated for students from Millat practical notebook.</u> | <ul style="list-style-type: none"> Know the composition of sugar | <ul style="list-style-type: none"> Write the name of the practical on black/white board Demonstrate the practical and perform in front of students Make small groups of students to perform practical Help the students to perform practical accurately | <ul style="list-style-type: none"> The teacher will check procedure through which students perform practical Ask some relevant questions from the students related to practical | <ul style="list-style-type: none"> Students will write practical on practical notebook | |
| 61. | <u>Introduction chapter # 15</u> | <ul style="list-style-type: none"> Students will be able to Define Genetics Define hereditary Define variations | <ul style="list-style-type: none"> Write the name of topic on board group discussion. | <ul style="list-style-type: none"> Why are children of same parents different Why they are resemble each other. What is gene and genetics | <ul style="list-style-type: none"> No home work | |
| 62. | <u>Chromosome</u> | <ul style="list-style-type: none"> Define | <ul style="list-style-type: none"> Write the name of topic | <ul style="list-style-type: none"> What is | <ul style="list-style-type: none"> Draw labeled | |

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| | <u>and genes</u> | chromosome <ul style="list-style-type: none"> Define gene Structure of chromosome Number of chromosome in organisms. | on board group discussion. | chromosome <ul style="list-style-type: none"> where it is located in cell What are the parts of chromosome? | diagram of chromosome | |
| 63. | <u>Chromatin Network</u> | <ul style="list-style-type: none"> Define Chromatin network. What is unit of Chromatin | <ul style="list-style-type: none"> Use chart and model of chromosome and chromatin network. | <ul style="list-style-type: none"> What are components of chromatin What id DNA What is hybrid | | |
| 64. | <u>Gene and Allele</u> | <ul style="list-style-type: none"> Difference between gene and allele. What are genes Define allele Define homologues chromosome | <ul style="list-style-type: none"> Draw diagram of allele and use chart. | <ul style="list-style-type: none"> What is allele What it is located What is the organization of allele | | |
| 65. | <u>Role of gene in protein synthesis transcription</u> | <ul style="list-style-type: none"> What is nucleic acid What is RNA Define transcription | Draw of diagram of protein <ul style="list-style-type: none"> Synthesis from book page 118 and explain and discussed | <ul style="list-style-type: none"> What is transcriptions What is RNA What is nucleic acid | | |
| 66. | <u>Translation</u> | <ul style="list-style-type: none"> What is RNA What is translation What is colon What is anti colon | Draw of diagram of protein <ul style="list-style-type: none"> Synthesis from book page 118 and explain and discussed | <ul style="list-style-type: none"> What is ribosome What is colon What is anti colon What is peptide bond | | |
| 67 | <u>Mendel's work on inheritance</u> | <ul style="list-style-type: none"> Who is Mendel Who is father of genetics Define in | Group discussion Metho | <ul style="list-style-type: none"> Who discovered mechanism of hereditary Who is father of | | |

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|------|--|---|---|---|-----------|---------|
| | | heritance | | genetics | | |
| 68. | <u>Mendel's law of inheritance</u> | <ul style="list-style-type: none"> Define law inheritance Why Mendel use pea plant for his experiment | group discussion and use diagram from page # 120 and 121 | <ul style="list-style-type: none"> What are traits What is botanical name of pea plant What are hybrid | | |
| 69. | <u>Law of dominance</u> | <ul style="list-style-type: none"> What is law of dominance Define dominant Define Recessive | Group discussion | <ul style="list-style-type: none"> Define law of dominance What is F₁ generation | | |
| 70. | <u>Law of segregation</u> | <ul style="list-style-type: none"> Define law of segregation Define monohybrid ratio Define phenotype Define genotype | Use chart of law of segregation and make diagram on board and discussed | <ul style="list-style-type: none"> Give student example to make checker board in group. | | |
| 71. | <u>Law of Independent assortment</u> | <ul style="list-style-type: none"> Define law of assortment Able to make checker board of law What are traits | Make diagram of checker board on black board | <ul style="list-style-type: none"> Define law of assortment What is di-hybrid cross. | | |
| 72. | <u>Dominance relation</u> <u>complete dominance</u> | <ul style="list-style-type: none"> Define dominance Differentiate between types of dominance | Write topic on the board lecture demonstration method | <ul style="list-style-type: none"> What is dominance What is complete dominance. | | |
| 74. | <u>Incomplete dominance</u> | <ul style="list-style-type: none"> Define incomplete dominance Ability to make checker board | Write topic on the board Discussion method And make checker board | <ul style="list-style-type: none"> What is incomplete dominance Complete checker board | | |
| 75. | <u>Co- dominance</u> | <ul style="list-style-type: none"> Define co-dominance | Write topic on the board and used discussion method | <ul style="list-style-type: none"> What is co-dominance | | |

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| | | <ul style="list-style-type: none"> Identification of blood group on basis of co-dominance | | <ul style="list-style-type: none"> What is role of co-dominance in blood groups | | |
| 76. | <u>Variations</u> | <ul style="list-style-type: none"> Define variations Importance of variations | Write name of topic on the board Question answer method | <ul style="list-style-type: none"> What is variation What is its role | | |
| 77. | <u>Sources of variations</u> | <ul style="list-style-type: none"> Source of Variations Define crossing over Define mutations | Discussion method | <ul style="list-style-type: none"> What is variation What is mutation What is crossing over | | |
| 78. | <u>Continuous and discontinuous variations</u> | <ul style="list-style-type: none"> Differentiate between continuous and discontinuous variations | Discussion method And make figure | <ul style="list-style-type: none"> What is continuous variations What is discontinuous variations | | |
| 79. | <u>Variation and evolution</u> | <ul style="list-style-type: none"> Define evolution Define environment variation | Discussion method | <ul style="list-style-type: none"> What is evolution What are causes of variation | | |
| 80. | <u>Variations leads to evolution</u> | <ul style="list-style-type: none"> Relationship of variation and evolution | Discussion method | <ul style="list-style-type: none"> What is the relationship between variation and evolution | | |
| 81. | <u>Darwin theory of evolution</u> | <ul style="list-style-type: none"> Darwin theory of evolution Ways of evolution | Discussion method | <ul style="list-style-type: none"> What is the relationship between variation and evolution | | |
| 82. | <u>Artificial selection and crop management</u> | <ul style="list-style-type: none"> Define artificial selection Its role in crop cultivation | Discussed method | <ul style="list-style-type: none"> What is artificial selection | | |
| 83. | <u>Chapter # 16</u> | <ul style="list-style-type: none"> Define | Lecture demonstration | <ul style="list-style-type: none"> What is | | |

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| | <u>introduction</u> | environment <ul style="list-style-type: none"> Define sources Define conversion | method | environment <ul style="list-style-type: none"> What are its components | | |
| 84. | <u>Levels of ecological organization</u> | <ul style="list-style-type: none"> Define species Define population Define ecosystem Define biosphere | Discussion method | <ul style="list-style-type: none"> What is species What is population Define ecosystem | | |
| 85. | <u>Environment habitat and niche</u> | <ul style="list-style-type: none"> Define environment Define habitat Define niche | Discussion method | <ul style="list-style-type: none"> What is habitat Name the different habitats Define niche | | |
| 86. | <u>Ecosystem and types</u> | <ul style="list-style-type: none"> Define ecosystem Types of ecosystem | Discussion method | <ul style="list-style-type: none"> What is ecosystem Types of ecosystem | | |
| 87. | <u>A biotic components of ecosystem first four light ,water ,temperature</u> | <ul style="list-style-type: none"> Define Abiotic components Name of the abiotic components Role of light, water, temp, wind | Discussion method | <ul style="list-style-type: none"> What is the role of light in plant life What is the role of water What is the role of temp | | |
| 88. | <u>Last four fire, soil, nutrients, gravity</u> | <ul style="list-style-type: none"> Role of fire in ecosystem Negative and positive aspects of fire | Discussion method | <ul style="list-style-type: none"> What is the role of soil for plants What is gravity | | |
| 89. | <u>Biotic components</u> | <ul style="list-style-type: none"> Define the biotic components Define producers, consumers and decomposer | Discussion method | <ul style="list-style-type: none"> Name the examples of producers Name the types of consumers | | |
| 90. | <u>Interrelation-ship between</u> | <ul style="list-style-type: none"> Relationship between | Discussion method | <ul style="list-style-type: none"> What is the relation between abiotic and | | |

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|------|--|--|--|---|-----------|---------|
| | <u>components</u> | components of ecosystem | | biotic components | | |
| 91. | <u>Flow of energy in ecosystem</u> <u>Sun as source of energy</u> | <ul style="list-style-type: none"> • Role of sun in ecosystem | Discussion method | <ul style="list-style-type: none"> • What is source of energy in ecosystem | | |
| 92. | <u>Flow of energy in ecosystem</u> <u>Flow of material and energy</u> | <ul style="list-style-type: none"> • Flow of energy • Flow of materials in ecosystem | Discussion method | <ul style="list-style-type: none"> • How energy flow in ecosystem • How materials flow in ecosystem | | |
| 93. | <u>The food chain</u> | <ul style="list-style-type: none"> • Define food chain • Role of food chain | Make different food chains and discussed | <ul style="list-style-type: none"> • What is food chain • Ask different food chains from student | | |
| 94. | <u>Food webs</u> | <ul style="list-style-type: none"> • Define food web • Role of food web | Make food webs on board and discussed | <ul style="list-style-type: none"> • What is food web • Ask student to make food webs | | |
| 95. | <u>Relationship between trophic levels</u> | <ul style="list-style-type: none"> • Define atrophic levels • Role of trophic levels | Discussion method use chart | <ul style="list-style-type: none"> • What is trophic levels | | |
| 96. | <u>Pyramid of biomass</u> | <ul style="list-style-type: none"> • Define pyramid of biomass • Able to draw it | Discussion method make figure on board | <ul style="list-style-type: none"> • What is pyramid of biomass • Make figure | | |
| 97. | <u>Experiment # 17 form practical note book</u> | | | | | |
| 98. | <u>Pyramid of numbers</u> | <ul style="list-style-type: none"> • Define pyramid of numbers • Able to draw it | Discussion method and make figure on board | <ul style="list-style-type: none"> • What is pyramid of number • make figure | | |
| 99. | <u>Biogeochemical cycles</u> | <ul style="list-style-type: none"> • Define Biogeochemical cycle • Its importance | Discussion method | <ul style="list-style-type: none"> • What is Biogeochemical cycle | | |
| 100. | <u>Carbon cycle</u> | <ul style="list-style-type: none"> • Define Carbon | Discussion method through | <ul style="list-style-type: none"> • What is Carbon | | |

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| | | cycle <ul style="list-style-type: none"> • Role of Carbon cycle | making figure | cycle <ul style="list-style-type: none"> • Draw Carbon cycle figure | | |
| 101. | <u>Nitrogen cycle</u> <u>Fixation</u> <u>Nitrogen</u> <u>Up take and</u> <u>decay</u> | <ul style="list-style-type: none"> • Define nitrogen cycle • Role of bacteria in cycle • Importance of nitrogen cycle | Make figure on board and discussed | <ul style="list-style-type: none"> • What is nitrogen cycle • What is its role | | |
| 102. | <u>Nitrogen cycle</u> <u>Nitrification</u> <u>De-nitrification</u> | <ul style="list-style-type: none"> • Define nitrification • Define de-nitrification | Discussion method | <ul style="list-style-type: none"> • What is role of bacteria in nitrification and de-nitrification | | |
| 103. | <u>Relationship of biogeochemical cycles</u> | <ul style="list-style-type: none"> • Role of biogeochemical cycle and ecological balance | Discussion method | <ul style="list-style-type: none"> • What is role of biogeochemical cycle • What is ecological balance | | |
| 104. | <u>Interaction in ecosystem</u> <u>Competition</u> <u>Predation</u> | <ul style="list-style-type: none"> • Define interaction • Define competition • Define predation | Discussion method | <ul style="list-style-type: none"> • What is competition • What is predation | | |
| 105. | <u>Symbiosis</u> | <ul style="list-style-type: none"> • Define Symbiosis • Types of Symbiosis | Discussion method | <ul style="list-style-type: none"> • What is symbiosis • Name the types of symbiosis | | |
| 106. | <u>Relationship among population growth and competition</u> | <ul style="list-style-type: none"> • Relation of competition and population growth • Relationship among predation and parasitism | Discussion method | <ul style="list-style-type: none"> • What is population growth • What is its relation with competition | | |
| 107. | <u>Predation and population</u> | <ul style="list-style-type: none"> • Define predation • Define population | Discussion method | <ul style="list-style-type: none"> • What is relationship between predation | | |

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| | <u>growth</u> | <ul style="list-style-type: none"> growth Their relationship | | and population growth | | |
| 108. | <u>Parasitism and P.G</u> | <ul style="list-style-type: none"> Relation of competition and population growth Relationship among predation and parasitism | Discussion method | <ul style="list-style-type: none"> What is relationship between Parasitism and population growth | | |
| 109. | <u>Human impact on environment</u> | <ul style="list-style-type: none"> Able to know human impact on environment | Discussion method | <ul style="list-style-type: none"> Name the human activities which effect the environment | | |
| 110. | <u>Global problems Over population</u> | <ul style="list-style-type: none"> Define over population Its causes Its effects | Discussion method | <ul style="list-style-type: none"> Define over population What is population control | | |
| 111. | <u>Urbanization</u> | <ul style="list-style-type: none"> Define urbanization problems of urbanization Solutions of urbanization | Group discussion method | <ul style="list-style-type: none"> What is urbanization What are its causes What are problems | | |
| 112. | <u>Deforestation</u> | <ul style="list-style-type: none"> Define Deforestation Causes Effects | Group discussion | <ul style="list-style-type: none"> What is Deforestation What are its causes What are effects | Question Part B Q # 12 from page 189 | |
| 113. | <u>Acid rain</u> | <ul style="list-style-type: none"> Define acid rain Causes Effects | Group discussion Draw diagram of acid rain | <ul style="list-style-type: none"> What is acid rain Name substances which produce it | Question #11 from page 189 | |
| 114. | <u>Green house effect</u> | <ul style="list-style-type: none"> Define green house effect Its causes Its effects | Group discussion | <ul style="list-style-type: none"> What is G.H.E Name substances which produce it | Write note on green house effect | |

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| 115. | <u>Ozone layer depletion</u> | <ul style="list-style-type: none"> Importance of ozone Causes of its depletion Harmful effects | Group discussion Lecture method | <ul style="list-style-type: none"> What is ozone Tell its importance Causes of its depletion | Write a note on ozone layer and its depletion | |
| 116. | <u>Pollution and control</u> | <ul style="list-style-type: none"> Effects of pollution Methods of control | Discussion method Question answer method Use charts | <ul style="list-style-type: none"> What is pollution What are its causes | | |
| 117. | <u>Air pollution</u> | <ul style="list-style-type: none"> Concept of air pollution Effects Causes | Discussion method Question answer method Use charts | <ul style="list-style-type: none"> What is air pollution What are its effects | | |
| 118. | <u>Land pollution</u> | <ul style="list-style-type: none"> Concept of land pollution Its causes Its effects | Discussion method Question answer method Use charts | <ul style="list-style-type: none"> What is land pollution What are its causes What are its effects | | |
| 119. | <u>Water pollution</u> | <ul style="list-style-type: none"> Concept of water pollution Its causes Its effects | Discussion method Question answer method Use charts | <ul style="list-style-type: none"> What is water pollution What are its causes What are its effects | Write causes and effects of type of pollution and their names. | |
| 120. | <u>Conservation of nature and need</u> | <ul style="list-style-type: none"> Concept of conservation Its need and importance | Discussion method Question answer method Use charts | <ul style="list-style-type: none"> What conservation of nature What is its importance | Question # 13 from page 189 | |
| 121. | <u>Recycling of wastes</u> | <ul style="list-style-type: none"> Concept of recycling Its advantages | Discussion method Question answer method Use charts | <ul style="list-style-type: none"> What is recycling What are its advantages | Question # 10 from page 189 | |
| 122. | <u>Chapter No 17 introduction</u> | <ul style="list-style-type: none"> Concept of biotechnology | Discussion method Question answer method Use charts | <ul style="list-style-type: none"> What is biotechnology | | |
| 123. | <u>Importance of biotechnology</u> | <ul style="list-style-type: none"> Importance of biotechnology Its effect on | Discussion method Question answer method Use charts | <ul style="list-style-type: none"> What are effects of biotechnology on society | Question # 1 from page 211 | |

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| | | society | | | | |
| 124. | <u>Biotechnology and genetic engineering</u> | <ul style="list-style-type: none"> Relationship of biotechnology and genetic engineering | Discussion method Question answer method Use charts | <ul style="list-style-type: none"> What is genetic engineering Tell its relation with biotechnology | | |
| 125. | <u>Biotechnology and fermentation</u> | <ul style="list-style-type: none"> Concept of fermentation Its relation with biotechnology | Discussion method Question answer method | <ul style="list-style-type: none"> What is biotechnology What is its role in fermentation | | |
| 126. | <u>Fermentation</u> | <ul style="list-style-type: none"> Concept of fermentation and importance | Discussion method | <ul style="list-style-type: none"> What is fermentation | | |
| 127. | <u>Types of fermentation</u> | <ul style="list-style-type: none"> Types of fermentation Chemical equations of types of fermentation | Write names of types of fermentation and their equations and discussed | <ul style="list-style-type: none"> What is fermentation Name its types Write their equations and explain | Write the names of types of fermentation and their equations on note book. | |
| 128. | <u>Fermentation products Alcohol Beer</u> | <ul style="list-style-type: none"> Preparation of alcohol Preparation of beer | Discussion method | How is alcohol prepared How is beer prepared | | |
| 129. | <u>Fermentation product Yogurt Bread Cheese</u> | <ul style="list-style-type: none"> Names of fermentation products Their importance in daily life | Discussion method | Name the fermentation products from daily life | | |
| 130. | <u>Fermenter</u> | <ul style="list-style-type: none"> <u>Fermenter</u> Its parts and function | Draw diagram of <u>Fermenter</u> = on board and discussed with students | <ul style="list-style-type: none"> What is <u>Fermenter</u> Name the parts | | |
| 131. | <u>Procedure to use Fermenter</u> | <ul style="list-style-type: none"> Producer and method of Fermenter | Draw diagram of Fermenter on board and discussed with students | <ul style="list-style-type: none"> What are the uses of Fermenter. | Question # 2 from page 211 | |

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| 132. | <u>Genetic engineering and uses</u> | <ul style="list-style-type: none"> • Concept of genetic engineering • Uses | Discussion method | <ul style="list-style-type: none"> • Name the advantages of formation | | |
| 133. | <u>Genetic engineering and uses</u> | <ul style="list-style-type: none"> • Concept of genetic engineering • Uses | <p>Write name of topic on board</p> <p>Discussion method</p> | <ul style="list-style-type: none"> • | | |
| 134. | <u>Objectives of genetic engineering</u> | <ul style="list-style-type: none"> • Identify and isolate genes which cause disease • Therapy to treat non genetic disease • Genetically modified organisms | Draw labeled diagram of genetically modified orange on board and discussed | <ul style="list-style-type: none"> • Name the objectives of genetic engineering • Name medicines which are prepared by G.E | No home work | |
| 135. | <u>Technique of G.E</u> | <ul style="list-style-type: none"> • Role of bacteria • Genetic engineering • Techniques of G.E | Discussion method | <ul style="list-style-type: none"> • What is molecular scissors • What is vector • What is plasmid • What is splicing | Question # 3 from page 211 part B | |
| 136. | <u>Achievements of G.E in Agriculture</u> | <ul style="list-style-type: none"> • Genetically modified plants • Viral resistance • Herbicidal disease and resistance | Discussion method | <ul style="list-style-type: none"> • What is GMO • What are virus resistance traits • Which plants are protected by VRT | | |
| 137. | <u>Achievements in curing animal disease</u> | <ul style="list-style-type: none"> • Medicines which protect animals from viral disease • Treatment of animal by G.E | Discussion method | <ul style="list-style-type: none"> • Name the medicines which are produce by G.E | Q # 7 from page 212 | |

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| 138. | <u>Foot and mouth disease and treatment of co acidosis</u> | <ul style="list-style-type: none"> Define foot and mouth disease Treatment of foot and mouth disease Define co acidosis Treatment of co acidosis | Discussion method | <ul style="list-style-type: none"> What is foot and disease What is co acidosis What is contagious viral disease | No home work | |
| 139. | <u>Treatment of trypanosome</u> | <ul style="list-style-type: none"> Define single cell trypanosome Treatment | Discussion method | <ul style="list-style-type: none"> | | |
| 140. | <u>Animal cloning</u> | <ul style="list-style-type: none"> Concept of cloning Types of cloning Steps in cloning | Discussion method | <ul style="list-style-type: none"> What is cloning Name the types of cloning Name the steps | Q # 5 from page 211 | |
| 141. | <u>Single cell protein</u> | <ul style="list-style-type: none"> Define single cell protein Uses of SCP SCP as animal food | Discussion method | <ul style="list-style-type: none"> What is single cell protein Name its uses | Q # 6 from page 211 | |
| 142. | <u>Single cell protein as animal feed</u> | <ul style="list-style-type: none"> Use of SCP in live stock Use in milk production and efficiency | Write the name of topic on board use lecture demonstration method | <ul style="list-style-type: none"> Name the uses of SCP in animals | | |
| 143. | <u>Chapter # 18 introduction pharmacology</u> | <ul style="list-style-type: none"> Define pharmacology importance of pharmacology | Write the name of topic on board use the discussion method | <ul style="list-style-type: none"> What is pharmacology What is its role in life of man | | |
| 144. | <u>Pharmacology as study of drugs</u> | <ul style="list-style-type: none"> Define drugs Relationship between pharmacology | Write the name of topic on board use the discussion method | <ul style="list-style-type: none"> What is a drug What are the effects of drugs | | |

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| | | <ul style="list-style-type: none"> and drugs • Chemical properties of drugs | | | | |
| 145. | <u>Pharmacology and source of drugs</u> | <ul style="list-style-type: none"> • Role of medicinal plants in life • Sources of drugs | Write the name of topic on board use the discussion method | <ul style="list-style-type: none"> • What are medicinal plants • Name the source of drugs. | | |
| 146. | <u>Important use of drugs</u> <u>Pain killer</u> <u>Anti biotic</u> | <ul style="list-style-type: none"> • Uses of drugs • Effects of pain killers • Effects of antibiotics | Write the name of topic on board use the discussion method | <ul style="list-style-type: none"> • What are antibiotics • What are their effects • How pain killer work | Question No 2 part B from page # 230 | |
| 147. | <u>Use of drugs</u> <u>Vaccines</u> <u>Sedatives</u> | <ul style="list-style-type: none"> • Define vaccines • Importance of vaccines • Importance of sedatives | Write the name of topic on board use the discussion method | <ul style="list-style-type: none"> • What are vaccines • How vaccines prepared • How vaccines are administrated | Question No 3 part B from page # 230 | |
| 148. | <u>Contribution of lister and Flaming</u> | <ul style="list-style-type: none"> • Role of lister • Role of Fleming | Write the name of topic on board use the discussion method | <ul style="list-style-type: none"> • How developed antiseptic spray • How discovered pencilin | | |
| 149. | <u>Addictive drugs</u> | <ul style="list-style-type: none"> • Define drugs • Positive and negative use of drugs | Write the name of topic on board use the discussion method | <ul style="list-style-type: none"> • What is drug • What is drug addiction | Question # 4 part B from page # 230 | |
| 150. | <u>Types of addictive drugs</u> <u>Sedative</u> | <ul style="list-style-type: none"> • Able to know the addictive drugs • Effects of sedatives | Discussion method | <ul style="list-style-type: none"> • Why are sedatives drugs used • What are their effects on health | | |
| 151. | <u>Types of addictive drugs</u> <u>Hallucinogens</u> <u>Mari Juana</u> | <ul style="list-style-type: none"> • Define hallucinogens • Define mari juana • Effects of | Discussion method | <ul style="list-style-type: none"> • What are hallucinogens • Tell effects of hallucinogens and | | |

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| | | hallucinogens and mari juana | | mari juana | | |
| 152. | <u>Narcotics</u> | <ul style="list-style-type: none"> Define narcotics Effect of narcotics | Discussion method | <ul style="list-style-type: none"> What are narcotics What are their effects | | |
| 153. | <u>Morphine and heroin</u> | <ul style="list-style-type: none"> Types of narcotics How heroine is prepared Define morphine | Discussion method | <ul style="list-style-type: none"> What is narcotics Define heroine Define opiate Define morphine | No home work | |
| 154. | <u>Drug addiction</u> | <ul style="list-style-type: none"> Define drug addiction Effects of drug addiction | Discussion method | <ul style="list-style-type: none"> Define drug addiction Name the effects of addiction | Q # 5 from page 230 | |
| 155. | <u>Symptoms of drug addiction</u> | <ul style="list-style-type: none"> Negative effects of addiction | Discussion method | <ul style="list-style-type: none"> Name of bad effects of addiction Symptoms | | |
| 156. | <u>Physical effects of drug addiction</u> | <ul style="list-style-type: none"> Physical effect of drug addiction | Discussion method | <ul style="list-style-type: none"> Name the physical effects of addiction | | |
| 157. | <u>Behavioral effects of drug addiction</u> | <ul style="list-style-type: none"> Behavioral effects Effects on society and hobbies | Discussion method | <ul style="list-style-type: none"> Name the Behavioral effects of addiction | | |
| 158. | <u>Psychological effects of drug addiction</u> | <ul style="list-style-type: none"> Psychological effects Effects on personality | Discussion method | <ul style="list-style-type: none"> Tell some Psychological effects of addiction | | |
| 159. | <u>Antibiotics</u> | <ul style="list-style-type: none"> Define antibiotics Preparation of anti biotic Effects | Discussion method | <ul style="list-style-type: none"> What is antibiotic What are the effects | Q # 3 from page 230 | |
| 160. | <u>Types of anti biotic</u> | <ul style="list-style-type: none"> What is sulfonamide | Discussion method | <ul style="list-style-type: none"> Define sulfonamide Name uses of | | |

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| | <u>sulfonamide</u> | <ul style="list-style-type: none"> • Uses of sulfonamide | | sulfonamide | | |
| 161. | <u>Types of antibiotic</u> <u>Cephalosporin's</u> <u>Tetracycline</u> | <ul style="list-style-type: none"> • Define Cephalosporin • Uses of Define • Effects | Discussion method | <ul style="list-style-type: none"> • Define cephalosporin • Name the diseases in which it is used | | |
| 162. | <u>Anti biotic resistance</u> | <ul style="list-style-type: none"> • Role of antibiotic in resistance | Discussion method | <ul style="list-style-type: none"> • What is role of antibiotic in resistance | | |
| 163. | <u>Vaccines and immunity</u> | <ul style="list-style-type: none"> • Define vaccines method of preparation • Administration effects | | <ul style="list-style-type: none"> • Define vaccines • Name the method of preparation • How it is administration | | |
| 164 to 180 | | 1. Previous Question papers of BISE 2. Their method of attempt and solution. 3. MCQ's from all exercise of text book Short answer Questions | | <ul style="list-style-type: none"> • | | |