

SCHEME OF WORK 2017-18

School:

Subject/Class: **Bio/10th**

Teacher Name:

Days	<u>Learning topics</u>	<u>SLOs</u>	<u>Strategy</u>	<u>Assessment</u>	<u>Home Work</u>	<u>Remarks</u>
1	<u>Introduction</u> <u>Gaseous</u> <u>exchange</u> <u>Definition,</u> <u>difference</u> <u>between</u> <u>Respiration,</u> <u>breathing</u>	<u>Student will be able to</u> <ul style="list-style-type: none"> ▪ Define gaseous exchange ▪ Can define respiration & breathing 	<u>Teacher should</u> <ul style="list-style-type: none"> ▪ Write the name of the topic on black board. ▪ Explain the topic through demonstrative method, like inhaling exhaling 	<u>Teacher should ask question like</u> How inhale & exhale occur & which of gases get into your body & how practically	<u>Student should</u> Draw diagram of man inhaling & exhaling the gas	
2	<u>Gaseous</u> <u>exchange in</u> <u>plants</u>	<ul style="list-style-type: none"> ▪ To differentiate the exchange of gases through leaves of plants. ▪ Can practically demonstrate the mechanism. 	<ul style="list-style-type: none"> ▪ Write the topics name on black board ▪ Explain the topic through text book. ▪ Demonstrate through available charts ▪ Practically demonstrate himself like inhaling & exhaling process. ▪ Explain the MCQs No.1,2,3and 4. ▪ Explain Q.1,2& 3. 	<ul style="list-style-type: none"> ▪ Define exchange of gases. ▪ Which gas is absorbed by the leaves ▪ Which gas is involved by the leaves. 	No home work	

3	<u>Gaseous exchange in lungs, biological consequences of smoking</u>	<ul style="list-style-type: none"> ▪ Define gaseous exchange through lungs practically . ▪ Define the hazards of smoking's. ▪ How smoking burn the hairs (Cilia)in air path . ▪ Demonstrate the mechanism of gaseous exchange. 	<ul style="list-style-type: none"> ▪ Write the topic's name on black board. ▪ Explain the topic practically ▪ Write some gases name on the board to involve the student's interest ▪ Explain Mcq#5,6,7 ▪ Explain Q# 4, 5, 6 	<ul style="list-style-type: none"> ▪ How lungs function ▪ Which of the gas goes into the lungs and why ▪ What is active smoking and passive smoking 	Students should draw a diagram of human lungs on their Notebooks at home Q.No 4, 5, 6	
4	<u>Effect of exercise on the rate of breathing</u>	<ul style="list-style-type: none"> ▪ Define breathing ▪ Define breathing rate 	<ul style="list-style-type: none"> ▪ Write the topic's name on the black board ▪ Explain the topic through both lecture Method and demonstrative method ▪ Use the models of lungs or charts available. ▪ Explain the question no 7, 8 	<ul style="list-style-type: none"> ▪ What is breathing? ▪ What is the name of available model? ▪ Which gas is exhaled through lungs or inhaled? 	<ul style="list-style-type: none"> ▪ Q. no 7 , 8 	
5	<u>Respiratory disorders, bronchitis, emphysema</u>	<ul style="list-style-type: none"> ▪ Define respiratory disorders or diseases ▪ Draw a diagram of lungs and broncus ▪ Define the terminology of "itis" 	<ul style="list-style-type: none"> ▪ Write the topic's name on blackboard ▪ Demonstrate the lungs model or chart available ▪ Explain the air passage including bronchial tube ▪ Explain the word "itis" its meaning ▪ Explain the terminology of "itis" as inflammation or infection ▪ Explain the question no.9 	<ul style="list-style-type: none"> ▪ What is disorder or disease ▪ What is bronchitis ▪ What is broncheole ▪ What is emphysee ▪ How extensive cough damages t , he walls of alveoli 	Q.No.9	

6	<u>Pneumonia and Asthma</u>	<ul style="list-style-type: none"> ▪ Define pneumonia ▪ Define asthma ▪ Demonstrate the mechanism of asthma 	<ul style="list-style-type: none"> ▪ Write the topics name on black board ▪ Demonstrate through Models or charts available. ▪ Help the students to perform the asthma activity in limited oxygen supply. 	<ul style="list-style-type: none"> ▪ Define pneumonia. ▪ Define asthma. ▪ How oxygen plays important role in Asthma. 	No home work	
7	<u>Lung cancer</u>	<ul style="list-style-type: none"> ▪ Define cancer ▪ Define lung cancer ▪ Know the dangers of smoking which caused the lung cancer 	<ul style="list-style-type: none"> ▪ Write the topic's name on black board. ▪ Explain the topic by lecture method as well as demonstrative method. ▪ Use the models or charts available. ▪ Solve MCQ#8,9 ▪ Explain the Q# 11 	<ul style="list-style-type: none"> ▪ What is cancer ▪ How smoking effect the lungs. ▪ How lung cancer happen. 	Q# 7 Diagram of lungs cancer	
8	<u>Practical activity on Note book</u>	<ul style="list-style-type: none"> ▪ Draw a diagram of Human lungs. 	<ul style="list-style-type: none"> ▪ Write the practical name on black board. ▪ Show the Model of human lungs. ▪ Also show the labeled charts. ▪ Make small groups of students to perform practical accurately. 	<ul style="list-style-type: none"> ▪ The teacher will cooperate the students for labeling the diagram. 	Draw a neat diagram of human lungs on their practical note books	

9	<u>Chapter # 11</u> <u>Introduction</u> <u>Homeostasis</u> <u>Homeostasis in plant.</u>	<ul style="list-style-type: none"> ▪ Define homeostasis ▪ Define homeostasis in plants. 	<ul style="list-style-type: none"> ▪ Write the topic's name. ▪ Explain the topic by interactive lecturing . ▪ Use available charts ▪ Solved MCQ 1,2,3 ▪ Questions 1,2 	<ul style="list-style-type: none"> ▪ What is homeostasis ▪ How does it occur . 	Q.1,2	
10	<u>Homeostasis in Human</u>	<ul style="list-style-type: none"> ▪ Define Homeostasis of humans. ▪ Define Mechanism of homeostasis. 	<ul style="list-style-type: none"> ▪ Write the topic's name on black board. ▪ Explain the topic by the both lecture method and demonstrative method. ▪ Solved the MCQ 4, 5. ▪ Provide available charts. 	<ul style="list-style-type: none"> ▪ What is difference between plants homeostasis and human homeostasis ▪ How homeostasis in human occur. 	Q.# 3	
11	<u>Kidneys as Homeostatic organ</u>	<ul style="list-style-type: none"> ▪ Draw a diagram of human kidney ▪ Define the function of kidney in body. ▪ Know about the importance of kidney in body. 	<ul style="list-style-type: none"> ▪ Write the topics name on black board. ▪ draw a diagram of human kidney on black board ▪ Complete labeling by the students after demonstration. ▪ Explain MCQ # 6,7, * ▪ Q.4 	<ul style="list-style-type: none"> ▪ Draw a diagram of kidney on note books. ▪ What is the role of kidney in the body. 	Question No.4	
12	<u>Osmoregulation & Kidneys</u>	<ul style="list-style-type: none"> ▪ Define osmoregulation ▪ Define osmoregulation in kidney. 	<ul style="list-style-type: none"> ▪ Write the topics name on blackboard. ▪ Explain in through lecture and involve the students through demonstration. 	<ul style="list-style-type: none"> ▪ What is osmoregulation ? ▪ How kidney play important role in osmoregulation 	Draw a neat diagram of human kidney.	

13	<u>Disorders of kidney</u>	<ul style="list-style-type: none"> ▪ Define the disorder of kidney. ▪ Define how kidney stone occur. ▪ How kidney stones are removed from body. ▪ What is lithotripsy 	<ul style="list-style-type: none"> ▪ Write the topic's name on blackboard. ▪ Explain the topic through both lecture & demonstrative method. ▪ Explain through models or charts available. ▪ Involve the students for labeling the kidney diagram. ▪ Explain Q.5,6 	<ul style="list-style-type: none"> ▪ Define the function of kidney. ▪ Define the disorder of kidney. ▪ What is kidney stone. ▪ How it removed through lithotripsy. 	Q.5,6	
14	<u>Renal failure /Dialysis</u>	<ul style="list-style-type: none"> ▪ To define renal failure ▪ What is dialysis. ▪ What is homeodialysis. ▪ What is peritoneal dialysis. 	<ul style="list-style-type: none"> ▪ Write the topic's name on blackboard. ▪ Demonstrate the topic through model or charts available or even by labeled diagram on black board. ▪ Explain Q.7,8 	<ul style="list-style-type: none"> ▪ What is dialysis ▪ What is homeodialysis. ▪ What is positional dialysis. 	Q.No.7,8	
15	<u>Muslim scientists</u>	<ul style="list-style-type: none"> ▪ To tell the major contribution of the muslim scientist. ▪ What is the contribution of Al-Razi. ▪ What is the contributions of Abdul Qasim. 	<ul style="list-style-type: none"> ▪ Write the topic name on black board. ▪ Show the pictures (Charts) available of the muslims scientist. ▪ Explained their contribution through lecture and discussion methods. 	<ul style="list-style-type: none"> ▪ Tell me some names of Muslim scientist . ▪ What is the contribution of Al-Razi. ▪ What is the contribution of Abdul-Qasim. 	No home work	

16	<u>Practical No.2</u> <u>Human kidneys.</u>	<ul style="list-style-type: none"> ▪ To labell the kidney diagram. ▪ To demonstrate the diagram. 	<ul style="list-style-type: none"> ▪ Write the topics name on black board. ▪ Demonstrate the kidney's diagram through models or charts available. 	<ul style="list-style-type: none"> ▪ What is the basic units of kidney . ▪ How nephron works. ▪ What is filtration 	Draw a neat diagram note on book.	
17	<u>Chapter NO.12</u> <u>Introduction Co-ordination in living bodies.</u>	<ul style="list-style-type: none"> ▪ Define co ordination. ▪ Define co ordination in living bodies. 	<ul style="list-style-type: none"> ▪ To remove the labeling and ask the student to come one by one to label it accurately. ▪ Write the topic's name on black board. ▪ Explain through lecture and demonstrative methods with the help of available models or charts Draw a diagram on the blackboard and labeled. ▪ The remove the labeling and ask the students one by one by label it accurately ▪ Explain Q.1,2 	<ul style="list-style-type: none"> ▪ Define co ordination ▪ Define co ordination in living bodies. 	Q.1 ,2	
18	<u>(CNS) and brain</u>	<ul style="list-style-type: none"> ▪ Define CNS ▪ Define some parts of brain ▪ Function of some parts of brain ▪ 	<ul style="list-style-type: none"> ▪ Have a discussion with students with this topics ▪ Write the topic name on the black board ▪ Explain the function of CNS ▪ Explain the different parts of brain ▪ Explain through available models or charts ▪ Explain question no# 5, 7 	<ul style="list-style-type: none"> ▪ What is the meaning of CNS ▪ What is the role of brain in CNS ▪ How many parts of brain are there 	<ul style="list-style-type: none"> ▪ Question # 5, 7 on their exercise note book 	

19	<u>Reflex action</u>	<ul style="list-style-type: none"> ▪ To define reflex action ▪ To know the advantages of reflex action ▪ To define reflex Arc 	<ul style="list-style-type: none"> ▪ Ask the questions from the students to come out to perform the topic. ▪ Write the topic's name on blackboard ▪ Define through lecture and demonstrative method with the help of available charts ▪ Explain Q#4 	<ul style="list-style-type: none"> ▪ What is reflex action ▪ What is reflex arc ▪ How does it work 	<ul style="list-style-type: none"> ▪ Solve Q#4 on their neat copies 	
20	<u>Receptors in human body (eye) (photoreceptor)</u>	<ul style="list-style-type: none"> ▪ Define the different parts of eye ▪ How we can see through eye ▪ How image is formed on Retina of the eye 	<ul style="list-style-type: none"> ▪ Give a task of group discussion among the class's group. ▪ Write the topic's name on the blackboard ▪ Explain the eye on the charts, models or even labeled diagrams on the blackboard ▪ Involve the students for demonstration of labeling eye parts ▪ Explain Q#3 	<ul style="list-style-type: none"> ▪ What is photoreceptor ▪ How eye see an object ▪ How many layers of eye are present 	<ul style="list-style-type: none"> ▪ Draw a neat labeled diagram of human eye 	
21	<u>Disorders of eye</u>	<ul style="list-style-type: none"> ▪ Define eye function ▪ Define disorders of eye ▪ Define short sightedness ▪ Define long sightedness 	<ul style="list-style-type: none"> ▪ Write the topic's name on blackboard ▪ Explain with the demonstration with the diagram or even with the labeled diagram on the blackboard ▪ Explain question# 6 	<ul style="list-style-type: none"> ▪ Define short sightedness ▪ Define long sightedness ▪ How these disorders can be handled 	<ul style="list-style-type: none"> ▪ Draw neat and labeled diagrams for short sightedness and long sightedness on the neat copies 	

22	<u>Muslim scientists</u>	<ul style="list-style-type: none"> ▪ To tell the Contribution of ibn-al-haitham ▪ To tell the contribution of Ali bin Isa 	<ul style="list-style-type: none"> ▪ Half of the class is given the topic of one scientist and other half to another Muslim scientist, both groups debate on their topic. ▪ Write the topic's name on the blackboard ▪ Define their contributions through lecture method ▪ Show the charts of the different Muslim scientists 	<ul style="list-style-type: none"> ▪ What are contributions of Ibn-al-Haitham ▪ What are contributions of Ali bin isa 	<ul style="list-style-type: none"> ▪ No home work 	
23	<u>Sonoreceptor or audioreceptor (ear)</u>	<ul style="list-style-type: none"> ▪ To define the hearing mechanism ▪ To define different parts of ear ▪ To define the functions of different parts of ear 	<ul style="list-style-type: none"> ▪ Write the topic's name on the blackboard ▪ Describe the function of different parts of ear with the help of available models or charts or even on the labeled diagram of ear 	<ul style="list-style-type: none"> ▪ What is sonoreceptor or audio receptor ▪ How ear works ▪ What are the different parts of human ear <p>How we hear</p>	<ul style="list-style-type: none"> ▪ Draw a neat diagram of human ear on neat copies 	
24	<u>Chemical co-ordination</u> <u>Hormones, endocrine glands, pituitary glands its lobes</u>	<ul style="list-style-type: none"> ▪ Types (STH), TSH, ACTH secretion ▪ Define chemical co-ordination ▪ Define hormones ▪ Define endocrine glands ▪ Show the position of pituitary gland 	<ul style="list-style-type: none"> ▪ Write the topic's name on the blackboard ▪ Explain the mechanism of co-ordination through hormones ▪ Explain the pituitary gland and demonstrate with the help of charts or labeled diagram on blackboard ▪ Explain question # 10 	<ul style="list-style-type: none"> ▪ Define hormones ▪ Define endocrine glands ▪ Show the location of pituitary gland in body 	<ul style="list-style-type: none"> ▪ Solve question no # 10 	

25	<u>Gonadotropic hormones,</u> <u>Anthiuretic hormones</u> <u>(ADH),</u> <u>Oxytocin,</u> <u>Thyroid gland</u>	<ul style="list-style-type: none"> ▪ Define hormones ▪ Define ADH ▪ Define oxytocin ▪ Define thyroid gland ▪ Define the function of thyroid glands 	<ul style="list-style-type: none"> ▪ Call the student to black board to locate their position(location) in the body. ▪ Write the different topics name one by one after discussion and demonstration on chats or blackboard ▪ Explain gonadotropic hormones, antidiuretic hormones oxytocin and thyroid gland ▪ Call the students to blackbord to lacute their position in the body 	<ul style="list-style-type: none"> ▪ What are gonadotropic hormones ▪ Define the function of oxytocin ▪ How thyroid gland effects on the body ▪ What are the diseases caused by thyroid glands 	<ul style="list-style-type: none"> ▪ No home work 	
26	<u>Pancreas</u>	<ul style="list-style-type: none"> ▪ Can tell the different function of different parts of the pancreas. ▪ To locate the exact position of pancreas in the body ▪ Can label the different parts of pancreas ▪ Can tell the different the functions of different parts of pancreas 	<ul style="list-style-type: none"> ▪ Write the topic's name on the blackboard ▪ Explain through both lecture and demonstrative methods with the help of charts available or on the blackbord ▪ Draw a diagram on the blackboard and call the students to label it ▪ Explain question # 8 	<ul style="list-style-type: none"> ▪ What is the function of pancreas ▪ What is insulin ▪ What is glucagon ▪ What disease occur with insulin deficiency ▪ What is the role of glucagon in the body 	<ul style="list-style-type: none"> ▪ question # 8 	

27	<u>Adrenal gland</u>	<ul style="list-style-type: none"> ▪ To define the adrenal gland ▪ Can tell the position (location) on the unlabeled diagram on blackboard ▪ Know the functions of adrenal gland 	<ul style="list-style-type: none"> ▪ Write the topic's name on the blackboard ▪ Explain the topic through lecture and demonstrative methods with the help of available charts or labeled diagram on blackboard ▪ Explain question # 9 	<ul style="list-style-type: none"> ▪ What is the function of adrenal gland ▪ How many layers are there in the adrenal gland ▪ Can call the students one by one on the blackboard to label the gland its layers 	<ul style="list-style-type: none"> ▪ Solve the question # 9 on neat copies 	
28	<u>Gonads, ovarian hormones</u> <u>oestrogen, progesterone</u> <u>and testicular hormones</u>	<ul style="list-style-type: none"> ▪ Define the function of oestrogen ▪ Define the function of progesterone ▪ Define the function of testicular hormone ▪ Can show the position (location) of these hormones on unlabeled diagram on the blackboard 	<ul style="list-style-type: none"> ▪ Write the topic's name on the blackboard ▪ Explain the topic through demonstration on the charts or labeled diagram on blackboard ▪ Make the class into small groups and tell him to demonstrate one boy from each group 	<ul style="list-style-type: none"> ▪ What is gonads ▪ What is oestrogen ▪ What is the function of progesterone ▪ Define testicular hormones 	<ul style="list-style-type: none"> ▪ No Home work 	

28	<u>Mechanism of hormonal secretion</u>	<ul style="list-style-type: none"> ▪ To describe the mechanism of hormone ▪ How hormone are secreted 	<ul style="list-style-type: none"> ▪ Ask the mechanism from some students after demonstration. ▪ Write the topic's name on the blackboard ▪ Explain the topic through text book and with the help of available charts ▪ Demonstrate the different procedures of hormonal secretion 	<ul style="list-style-type: none"> ▪ What is hormonal secretion ▪ What is the mechanism of hormonal secretion ▪ How hormones function in the body ▪ What is negative feedback 	<ul style="list-style-type: none"> ▪ Draw a negative feedback diagram in neat copies 	
30	<u>Nervous disorders</u>	<ul style="list-style-type: none"> ▪ Define Epilepsy ▪ Define paralysis ▪ How nervous disorders disconnect the body from nervous system 	<ul style="list-style-type: none"> ▪ Write the topic's name on the blackboard ▪ Explain through lecture method from textbook and demonstrative method through charts ▪ Draw a labeled diagram showing the connection of brain (nervous system) to different parts of body 	<ul style="list-style-type: none"> ▪ Define paralysis ▪ Define Epilepsy ▪ How we can treat the patients suffering from these disorders 	<ul style="list-style-type: none"> ▪ No home work 	
31	<u>Practical # 3</u> <u>Draw a diagram of human kidney</u>	<ul style="list-style-type: none"> ▪ Define through charts or model ▪ To label the diagram 	<ul style="list-style-type: none"> ▪ Write the practical topic's name "human kidney" ▪ Demonstrate the model or chart or even on the labeled diagram in blackboard 	<ul style="list-style-type: none"> ▪ Call the student to notify the different parts of kidney ▪ What are functions of kidney ▪ What is filtration ▪ What is pressure filtration 	<ul style="list-style-type: none"> ▪ Draw a neat diagram on the practical note book 	

32	<u>Chapter#3</u> <u>support and movement</u> <u>Introduction :</u> <u>human skeleton</u>	<ul style="list-style-type: none"> ▪ Define skeleton ▪ Define its types ▪ Define axial skeleton ▪ Define vertebral column 	<ul style="list-style-type: none"> ▪ Write the topic's name on the blackboard ▪ Demonstrate the different parts of the body demonstrate the skeletal system on charts, model or even on the text books ▪ Explain MCQs # 1,2 	<ul style="list-style-type: none"> ▪ Name the different parts of body ▪ What is vertebral column ▪ what is axial skeleton ▪ What is skull 	<ul style="list-style-type: none"> ▪ Question # 1, 2 on neat copies 	
33	<u>Appendicular skeleton</u>	<ul style="list-style-type: none"> ▪ To demonstrate different parts of body ▪ Can tell the exact location of different parts of body 	<ul style="list-style-type: none"> ▪ Write the topic's name on the blackboard ▪ Explain appendicular skeleton through charts and books ▪ Explain Question # 6 	<ul style="list-style-type: none"> ▪ Define appendicular skeleton ▪ Define skeleton ▪ Can tell the names of different parts of skeleton 	<ul style="list-style-type: none"> ▪ Question #6 	
34	<u>Joints</u>	<ul style="list-style-type: none"> ▪ Define joints ▪ Define joint's system ▪ Function of joints 	<ul style="list-style-type: none"> ▪ Ask the different student to show their body joints. ▪ Write the topic's name on the blackboard ▪ Demonstrate different types of joints ▪ Give examples of joints with day to day life ▪ Explain MCQs # 6, 7, 8 ▪ Question # 5, 7 	<ul style="list-style-type: none"> ▪ What is joint ▪ How joint work ▪ How many types of joints are present 	<ul style="list-style-type: none"> ▪ Question # 5, 7 	

35	<u>Repair of broken bones</u>	<ul style="list-style-type: none"> ▪ Define how bones are repaired ▪ What is the procedure of repairmen of bones 	<ul style="list-style-type: none"> ▪ Also have a group discussion among the different groups. ▪ Write the topic's name on the blackboard ▪ Explain the topic through textbook ▪ Demonstrate it through charts or textbooks 	<ul style="list-style-type: none"> ▪ Define how broken bone is repaired ▪ What is the procedure of repairing broken bones 	<ul style="list-style-type: none"> ▪ No home work 	
36	<u>Contribution of Vi Salius</u>	<ul style="list-style-type: none"> ▪ Tell the contribution of Vi salius 	<ul style="list-style-type: none"> ▪ Write the topic's name on the blackboard ▪ Explain the topic from the text books ▪ Explain how vi Salius change Galan's theories ▪ Explain question # 3 	<ul style="list-style-type: none"> ▪ What is Galan's theory ▪ How vi Salius changed his theory 	<ul style="list-style-type: none"> ▪ Question # 3 	
37	<u>Muscles and movement</u>	<ul style="list-style-type: none"> ▪ Define muscles ▪ Define muscles movement ▪ Define movement mechanism ▪ Define antagonistic movement 	<ul style="list-style-type: none"> ▪ Write the topic's name on the blackboard ▪ Explain through textbook by lecture method ▪ Demonstrate the muscle movement through charts or even on the diagram on blackboard ▪ Explain question # 3 	<ul style="list-style-type: none"> ▪ Define muscles ▪ Define movement ▪ Define muscles movements ▪ What is the mechanism of muscles movements ▪ What is antagonistic skeletal muscles 	<ul style="list-style-type: none"> ▪ Question # 3 on neat copies 	

38	<u>Disorders of skeletal system</u>	<ul style="list-style-type: none"> ▪ Define osteoporosis ▪ Define Arthritis ▪ Define osteoporosis, rheumatoid and gouty arthritis 	<ul style="list-style-type: none"> ▪ Write the topic's name on the blackboard ▪ Explain different disorders one by one after writing names on blackboard ▪ Explain each topic through text book ▪ Demonstrate through charts and text book ▪ Solve MCQs # 4 and question # 4 	<ul style="list-style-type: none"> ▪ Define skeletal disorder ▪ Define osteoporosis ▪ Define gouty arthritis ▪ Define Rheumatoid Arthritis 	<ul style="list-style-type: none"> ▪ Question # 4 	
39	<u>Practical # 4 Human skeleton</u>	<ul style="list-style-type: none"> ▪ Label the unlabeled diagram of skeleton ▪ Can draw a diagram of skeleton ▪ Can tell the names of different parts of skeleton 	<ul style="list-style-type: none"> ▪ Write the practical name on the blackboard ▪ Draw a diagram before students ▪ Demonstrate the human skeleton through textbook and charts 	<ul style="list-style-type: none"> ▪ Where is spinal cord ▪ Where is rib cage ▪ How many bones are there in human skeleton 	<ul style="list-style-type: none"> ▪ Draw a neat diagram of human skeleton on practical note books 	

40	<u>Chapter No.14</u> <u>Reproduction,</u> <u>Types of</u> <u>Reproduction</u>	<ul style="list-style-type: none"> ▪ Define Reproduction? ▪ Define asexual reproduction. ▪ Define Binary fission. ▪ Define budding ▪ Define spore formation 	<ul style="list-style-type: none"> ▪ Write the topic's name on blackboard. ▪ Explain the topic by interactive lecturing. ▪ Demonstrate the topic through text book and charts. ▪ Solve the MCQ # 1,5,7 	<ul style="list-style-type: none"> ▪ Define reproduction. ▪ Define asexual reproduction. ▪ Define binary fission. ▪ Define budding ▪ How spores are formed. 	No home work	
41	<u>Vegetative</u> <u>propagation</u> <u>through leaves</u> <u>and stem</u>	<ul style="list-style-type: none"> ▪ Define vegetative propagation. ▪ Define vegetative propagation through stem. ▪ Define vegetative propagation leaves. 	<ul style="list-style-type: none"> ▪ Write the name of topic on blackboard. ▪ Explain the topic through lecture method from text books. ▪ Demonstrate the topic with help of available charts. ▪ Solve the MCQ # 8 	<ul style="list-style-type: none"> ▪ What is vegetative propagation . ▪ How vegetative propagation occur through stem ▪ What is adventitious root 	No home work	
42	<u>Vegetative</u> <u>propagation</u> <u>through root</u>	<ul style="list-style-type: none"> ▪ Define vegetative propagation through root. ▪ Define root sprout ▪ What is the other name of root sprout. 	<ul style="list-style-type: none"> ▪ Write the topic name on blackboard . ▪ Explain the topic by interactive lecturing ▪ Demonstrate the topic through diagram and charts available. 	<ul style="list-style-type: none"> ▪ What is root sprout ▪ What is vegetative propagation through roots. ▪ What is the other name of root sprout. 	No home work	
43	<u>Artificial</u> <u>propagation in</u> <u>Plants</u> <u>parthenocarpic</u> <u>fruits , apomixes</u> <u>& cloning</u>	<ul style="list-style-type: none"> ▪ Define cutting. ▪ Define grafting ▪ Define parthenocarpic ▪ Define apomixes ▪ Define cloning 	<ul style="list-style-type: none"> ▪ Write the topic's name on blackboard. ▪ Explain the topic through text book. ▪ Demonstrate through available charts 	<ul style="list-style-type: none"> ▪ What is parthenocarpic. ▪ Define cutting ▪ Define grafting. ▪ Define apomixes ▪ Define cloning 	No home work	

44	<u>Sexual reproduction life cycle of flowering plants</u>	<ul style="list-style-type: none"> ▪ Define sexual reproduction ▪ Define zygote ▪ Know about the sex organ's name. ▪ Define pollination. 	<ul style="list-style-type: none"> ▪ Write the name of topic on black board. ▪ Explain the topic through text book. ▪ Demonstrate the topic through available charts. 	<ul style="list-style-type: none"> ▪ What is sexual reproduction. ▪ What is pollination. ▪ What is the name of female organ in flowers. ▪ What is the name of male organ in flowers. ▪ Explain question 4,5,11 	Question No. 4,5,11 on neat copies	
45	<u>Pollination through insects (entomophilous)</u>	<ul style="list-style-type: none"> ▪ Define pollination . ▪ Define pollination through insects . ▪ Define the characteristics of entomophilous flowers. ▪ Know about the names of some plants having entomophilous flowers 	<ul style="list-style-type: none"> ▪ Write the topic's name on black board. ▪ Explain the topic through text books. ▪ Demonstrate the topic through charts and diagram. 	<ul style="list-style-type: none"> ▪ What is pollination . ▪ Define pollination through insect. ▪ What are the characteristics of Entomophilous flowers. ▪ Why entomophilous flowers have scent or fragrance. 	No home work	

46	<u>Pollination through wind (anemophilous flowers)</u>	<ul style="list-style-type: none"> ▪ Define pollination through wind. ▪ Define characteristics of anemophilous flowers. ▪ Define how some pollen grains have wings like structure and are light. ▪ 	<ul style="list-style-type: none"> ▪ Write the topic's name on blackboard. ▪ Explain the topic through text books. ▪ Demonstrate the topic through charts and diagram ▪ Group the student and ask different characteristic one by one 	<ul style="list-style-type: none"> ▪ What the pollination through wind. ▪ Give some characteristics of anemophilous flowers. ▪ Why some pollen grains have wings. ▪ Why these flowers lack scent or fragrance. 	No home work.	
47	<u>Structure of seed</u>	<ul style="list-style-type: none"> ▪ Define seed ▪ Define layers of seed ▪ Define different parts of seed 	<ul style="list-style-type: none"> ▪ Write the name of topic on blackboard. ▪ Demonstrate different types of seed to the students. ▪ Have a discussion among the students on structure of seed. ▪ Explain Q.No.5,7 ▪ 	<ul style="list-style-type: none"> ▪ What is the name of outer most layer of the seed. ▪ What are the different parts of seed. 	No home work	
48	<u>Seed germination and its types</u>	<ul style="list-style-type: none"> ▪ Define germination ▪ Define epigeal germination ▪ Define hypogeal germination. 	<ul style="list-style-type: none"> ▪ Write the name of topic on blackboard. ▪ Demonstrate the topic with the help of some herbaceous plants along their roots. ▪ Have a discussion among the students on the types of germination. 	<ul style="list-style-type: none"> ▪ What is germination. ▪ What is epigeal germination. ▪ What is hypogeal germination 	No home work	

49	<u>Conditions necessary for germination of seeds</u>	<ul style="list-style-type: none"> ▪ Define role of water germinatin. ▪ Define role of oxygen for germination . ▪ Define role of suitable temperature for germination. 	<ul style="list-style-type: none"> ▪ Write the topic's name on black board. ▪ Demonstrate & define the topic through text books and charts available. ▪ Solve MCQ # 4 	<ul style="list-style-type: none"> ▪ Why water is necessary for germination. ▪ Why oxygen is necessary for germination. ▪ What is the role of temperature 	No home work	
50	<u>Theophrastus (Scientist)</u>	<ul style="list-style-type: none"> ▪ Define the contribution of Theophrastus ▪ Know that Theophrastus was the scientist who differentiated the plants into monocot , dicot , angiosperm 	<ul style="list-style-type: none"> ▪ Write the name of scientist on blackboard. ▪ Show the picture of Theophrastus from available charts or even from text books. ▪ Explain the contributions of Theophrastus and have group discussion among the students. 	<ul style="list-style-type: none"> ▪ Who explained frist time monocot & dicot, angiosperm & gymnosperm. ▪ How many species he mentioned. 	No home work	
51	<u>Reproduction in Animals</u>	<ul style="list-style-type: none"> ▪ Define binary fission. ▪ Define multiple fission ▪ Define budding ▪ Define fragmentation 	<ul style="list-style-type: none"> ▪ Write the topic's name on black board. ▪ Explain the topic through interactive lecturing ▪ Demonstrate the topic through avail be charts or diagram. ▪ Have groups discussion among the students on the topic ▪ Explain question #8 & solve MCQ 2,10 	<ul style="list-style-type: none"> ▪ What is binary fission. ▪ What is multiple fission. ▪ What is budding. ▪ What is fragmentation . 	No home work	

52	<u>Sexual reproduction in animals (external fertilization and internal fertilization)</u>	<ul style="list-style-type: none"> ▪ Define sexual reproduction in animals. ▪ Define external fertilization. ▪ Define internal fertilization 	<ul style="list-style-type: none"> ▪ Write the topic's name on black board. ▪ Explain sexual reproduction. ▪ Explain fertilization. ▪ Explain external fertilization . ▪ Explain internal fertilization. ▪ Demonstrate through available carats or even by text books 	<ul style="list-style-type: none"> ▪ What is fertilization . ▪ What is external fertilization ▪ What is internal fertilization ▪ Define sexual reproduction. 	No home work	
53	<u>Male reproductive system in Rabbit</u>	<ul style="list-style-type: none"> ▪ Define male reproductive system . ▪ Define male reproductive system in Rabbit. ▪ Can differentiate between male and female reproductive system of Rabbit. 	<ul style="list-style-type: none"> ▪ Write the topics name on black board. ▪ Explain the topic through text books. ▪ Demonstrate the topic through available charts or text books. ▪ Have a group discussion among the students on the topics. 	<ul style="list-style-type: none"> ▪ Define male reproductive system. ▪ Define male reproductive system in Rabbit. ▪ What is the difference between male and female reproductive system in Rabbit. 	No Home work	

54	<u>Female reproductive system in Rabbit</u>	<ul style="list-style-type: none"> ▪ Define female reproductive system in Rabbit. ▪ Can differentiate between the male & female reproductive system. 	<ul style="list-style-type: none"> ▪ Write the topic's name on blackboard. ▪ Explain the topic through text books. ▪ Explain through available charts. ▪ Have a activity base method through which students can differentiate between male and female reproductive system in rabbit ▪ Explain question # 9 	<ul style="list-style-type: none"> ▪ Define female reproductive system. ▪ Define reproductive system in Rabbit 	No home work	
55	<u>Gamatogenesis</u>	<ul style="list-style-type: none"> ▪ Define gamete ▪ Define gametogenesis ▪ Define Zygote 	<ul style="list-style-type: none"> ▪ Write the topic's name on black board. ▪ Explain the topic through text books. ▪ Demonstrate the topic through available charts. ▪ Group discussion among the students on the topic. 	<ul style="list-style-type: none"> ▪ What is gamategenesis ▪ What is zygote ▪ Define Gamate. 	No home work	
56	<u>Spermatogenesi</u> <u>s</u>	<ul style="list-style-type: none"> ▪ Know about sperm ▪ Define spermatogenesis ▪ Define spermatogonia. ▪ Define primary spermatocytes. 	<ul style="list-style-type: none"> ▪ Write the topic's name on black board. ▪ Explain the topic through interactive lecturing. ▪ Demonstrate through video clips if available. ▪ Have a group discussion students on the topic. 	<ul style="list-style-type: none"> ▪ What is spermatogonia. ▪ What is primary spermatocytes. ▪ Define sperm. ▪ Define spermatogenesis. 	No home work	

57	<u>Oogenesis</u>	<ul style="list-style-type: none"> ▪ Define Oogenesis ▪ Define Ovulation ▪ Define Primary Oocyte 	<ul style="list-style-type: none"> ▪ Write the topic's name on black board. ▪ Define the topic through lecture method from text books. ▪ Group the students and the topic was demonstrated by them through charts. ▪ Explain question# 10 ▪ Solve MCQ # 6 	<ul style="list-style-type: none"> ▪ What is ovum or egg. ▪ How ovulation take place. ▪ What is primary Oocyte. 	Question # 10	
58	<u>Need of population planning</u>	<ul style="list-style-type: none"> ▪ Define population. ▪ Define population growth rate. 	<ul style="list-style-type: none"> ▪ Write the topic's name on black board. ▪ Explain the topic through text books. ▪ Have a video clips on population of our neighboring countries on projector if available. ▪ Demonstrate through charts of the population crisis. ▪ Explain Question # 12 	<ul style="list-style-type: none"> ▪ Define population. ▪ Define population crisis. ▪ Define population growth rate. 	Question No.12	
59	<u>Sexually transmitted disease AIDS</u>	<ul style="list-style-type: none"> ▪ Define AIDS ▪ What are the symptoms of AIDS. ▪ Know the treatment of AIDS. ▪ Role of NGOs for the prevention of AIDS 	<ul style="list-style-type: none"> ▪ Write the topic's name on black board. ▪ Explain the topic through text books. ▪ Demonstrate the topic through available charts or video clips on projector ▪ Remedial precautions through example. 	<ul style="list-style-type: none"> ▪ Define AIDS ▪ Define any symptom of AIDS. ▪ What is the role of NGOs for the remedy of the disease ▪ What is the treatment of AIDS 	No home work	

60	<u>Practical male reproductive system & Female reproductive system of Rabbit</u>	<ul style="list-style-type: none"> ▪ Know how to differentiate the male reproductive system and female reproductive system. ▪ Can draw and label the system 	<ul style="list-style-type: none"> ▪ Write the practical's name on black board ▪ Show charts of both male and female reproductive system. ▪ Draw a diagram on the black board. ▪ Labeled the diagram by different students. 	<ul style="list-style-type: none"> ▪ Can draw the male and female reproductive system's diagrams. ▪ Can label the unlabelled diagrams 	Draw neat diagram on practical note books.	
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