

**Class – XII**

**Sub: BIOLOGY**

**Weekly Syllabus**

**Academic Session 2024-25**

Month	Week	Dates		Days	No of Periods	Chapter	Contents	Syllabus
Mar 24	Block Teaching					Chapter-1 sexual reproduction in flowering plants	1.1 Flower a fascinating organ of angiosperms 1.2 Pre-fertilization – Structure and events. 1.3 Double fertilization 1.4 Post fertilization: Structure and events 1.5 Apomixis & Polyembryony  <b>NCERT exercise question answer. PYQ'S</b>	
Apr-24	I	01-06	<b>06-Working Saturday (Staff)</b>	05		Chapter-2 Human Reproduction	2.1The male reproductive system 2.2 Female reproductive system 2.3 Gametogenesis: spermatogenesis  <b>Prepare a temporary mount to observe pollen germination.</b>	
	II	08-12	<b>11 – Id-ul-Fitr</b>	04		Chapter-2 Human Reproduction	2.3 Gametogenesis: oogenesis Hormonal control of gametogenesis 2.4 Menstrual Cycle  2.5 Fertilizations Implantation 2.6 Pregnancy & Embryonic development 2.7 Parturitions, lactation	

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							<b>Study the plant population density by quadrat method.</b> <b>NCERT exercise question answer. PYQ'S</b>	
	III	15-19	<b>14 - Ambedakar Jayanti</b> <b>17 – Ram Navami</b> <b>21 - Mahavir Jayanti</b>	04		Chapter-3 Reproductive health	3.1 Reproductive health problems & strategies 3.2 Population Explosion and birth control <b>Study the plant population frequency by quadrat method</b>	
	IV	22-27	<b>27-Working Saturday (Student)</b>	06		Chapter-3 Reproductive health  Chapter-4 Principles of inheritance and variation	3.3 Medical termination of Pregnancy 3.4 Sexually transmitted diseases 3.5 Infertility <b>NCERT exercise question answer. PYQ'S</b> 4.1 Mendel's laws of inheritance 4.2 Inheritance of one gene <b>Prepare a temporary mount of onion root tip to study mitosis</b>	
	V	29-30		02		Chapter-4 Principles of inheritance and variation	4.2.1 Law of Dominance 4.2.2 Law of segregation 4.2.2.1 Incomplete Dominance <b>Isolate DNA from available plant material such as spinach, green pea seeds, papaya, etc</b>	
<b>May-24</b>	I	01-03	<b>01-03 : ES-1 (XII)/ CT-1 (X)</b>	03		Chapter-4 Principles of inheritance and variation	4.2.2.2 Co dominance 4.3 Inheritance of two genes 4.3.1 Law of Independent assortment 4.3.2 Chromosomal theory of inheritance 4.3.3 Linkage & inheritance <b>Flowers adapted to pollination by different agencies (wind, insects, birds).</b>	<b>ES-1 (XII)/ CT-1 (X)</b> <b>Date: 01-07 May</b> <b>Chapter 1</b> <b>Chapter 2</b> <b>Chapter 3</b>
	II	06-10	<b>06-07 : ES-1 (XII)/ CT-1</b>	05		Chapter-4	4.4 Sex determination	

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			(X) 09,10 – The Quest			Principles of inheritance and variation	4.4.1 Sex determination in Humans 4.5 Mutation 4.6 Genetic Disorders Pollen germination on stigma through a permanent slide or scanning electron micrograph.  Identification of stages of gamete development, i.e., T.S. of testis and T.S. of ovary through permanent slides (from grasshopper/mice).	
	III	13-18	18- Working Saturday (Open House X & XII)	06		Chapter-4 Principles of inheritance and variation	4.6.1 Pedigree analysis 4.6.2 Mendelian disorder 4.6.3 Chromosomal disorder NCERT exercise question answer. PYQ'S T.S. of blastula through permanent slides (Mammalian).	
<b>***** SUMMER BREAK 20 MAY -30 JUN 2024 *****</b>								
Jul-24	I	01-06	01- School reopens for staff 06-Working Saturday (Student)	05		Chapter 5: Molecular Basis of Inheritance	5.1 The DNA 5.1.1 Str. of polynucleotide DNA 5.1.2 Packaging of DNA helix 5.2The search for DNA material 5.2.1 The genetic material is DNA 5.2.2 Properties of genetic materials Mendelian inheritance using seeds of different colour/sizes of any plant.	ES-2 (XII): 05 Jul – 12Jul  Chapter 4
	II	08-12		05		Chapter 5: Molecular Basis of Inheritance	5.3 RNA world 5.4 Replication  5.4.1 The experimental proof 5.4.2 The machinery & the enzyme	

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							5.5 Transcription Prepared pedigree charts of any one of the genetic traits such as rolling of tongue, blood groups, ear lobes, widow's peak and colour blindness	
	III	15-19	17-Muharram	04		Chapter 5: Molecular Basis of Inheritance	5.5.1 Transcription unit 5.5.2 Transcription unit & gene 5.5.3 Type of RNA & the process of transcription 5.6 Genetic Code 5.6.1 Mutation & genetic code 5.6.2 The adapter Molecule Controlled pollination - emasculation, tagging and bagging	
	IV	22-27	27 – Working Saturday (Students)	06		Chapter 5: Molecular Basis of Inheritance	5.7 Translation 5.8 Regulation of gene expression 5.8.1 The lac operon 5.9 Human Genome project 5.10 DNA Finger printing  NCERT exercise question answer. PYQ'S Prepare a temporary mount of onion root tip to study mitosis	
	V	29-31		03		Chapter-6 Evolution	6.1 Origin of life 6.2 Evolution of life forms 6.3 What are evidences for evolution 7.4 What is adaptive radiation? Meiosis in onion bud cell or grasshopper testis through permanent slides.	
Aug-24	I	01-03	03 – Working Saturday (Open House (VI-X), XII)	03		Chapter-6 Evolution	6.5 Biological evolution 6.6 Mechanism of evolution	

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	II	05-09		05		Chapter-6 Evolution	6.7 Hardy Weinberg Principle 6.8 A brief account of Evolution  <b>NCERT exercise question answer. PYQ'S</b> Flash cards models showing examples of homologous and analogous organs.	
	III	12-16	<b>15 – Independence Day</b>	04		Chapter-7 Human health and diseases	7.1 Common Human Diseases 7.2 Immunity	
	IV	19-23	<b>19-Raksha Bandhan</b>	04		Chapter-7 Human health and diseases	7.3 Aids 7.4 Cancers 7.5 Drugs and Alcohol abuse Common disease-causing organisms like Ascaris, Entamoeba, Plasmodium, any fungus causing ringworm through permanent slides, models or virtual images or specimens. Comment on symptoms of diseases that they cause.  <b>NCERT exercise question answer. PYQ'S</b>	
	V	26-31	<b>26-Janmashtami</b> <b>31-Working Saturday (Students)</b> <b>31-Annual Prize Distribution</b>	05			<b>Revision for half yearly examination</b>	
				05				

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Sep-24	I	02-06					Mid Term/ HYE Exam	
	II	09-14	<b>14 – Working Saturday (Students)</b>	06		Mid Term/ HYE Exam <b>Answer key discussion</b>	<b>Ch 8 Microbes And Human Welfare</b> 8.1 Microbes in household products 8.2 Microbes in Industrial products 8.3 Microbes in sewage treatment 8.4 Microbes in the production of Biogas 8.5 Microbes as biocontrol agents 8.6 Microbes as biofertilizers	<b>Mid Term (PT-II)/ HYE</b> Chapter 1 to chapter 7
	III	16-21	<b>16-Milad-un-Nabi 21 – Working Saturday (Students)</b>	05				
	IV	23-27		05				
	V	30		01	<b>NCERT exercise question answer. PYQ'S</b>			
Oct-24	II	01-05	<b>02-Mahatma Gandhi's Birthday</b> <b>05-Annual Prize Distribution</b>	04		Chapter 9: Biotechnology Principles and Processes	9.1 Principles of Biotechnology 9.2 Tools of recombinant Biotechnology	
	III	07-12	<b>09-13– Autumn Break</b> <b>12- Dussehra</b>	02		Chapter 9: Biotechnology Principles and Processes	9.3 Process of Recombinant DNA technology <b>NCERT exercise question answer. PYQ'S</b>	
	IV	14-19	<b>17-Maharishi Valmiki's Birthday</b> <b>19 – Working Saturday (Open House VI-XII)</b>	05		Chapter 10: Biotechnology & Its Application	10.1 Biotechnological application in agriculture 10.2 Application in Medicines 10.3 Transgenic animals 10.4 Ethical issues <b>NCERT exercise question answer. PYQ'S</b>	
	V	21-25	<b>20– Karwa Chouth</b>	05		Chapter 11: Organisms &	11.1 Population 11.1.1 population attributes	

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						Populations	11.1.2 Population growth 11.1.3 life history variation 11.1.4 Population interaction <b>NCERT exercise question answer.</b> <b>PYQ'S</b> Models specimen showing symbolic association in root modules of leguminous plants, Cuscuta on host, lichens.	
	VI	28-31	<b>30-03 Nov – Diwali Break</b>	02		Chapter 12: Ecosystem	12.1 Ecosystem structure & function 12.2 Productivity 12.3 Decomposition	
<b>*** Autumn Break 09-13 Oct 2024 ***</b>								
<b>Nov-24</b>	I	04-09	<b>09 – Working Saturday (Students)</b>	06		Chapter 12: Ecosystem	12.4 Energy Flow 12.5 Ecological pyramid <b>NCERT exercise question answer.</b> <b>PYQ'S</b>	
						Chapter 13: Biodiversity & Conservation	13.1 Biodiversity 13.1.1 How many species are there on earth and how many in India ? 13.1.2 Pattern of biodiversity 13.1.3 The importance of species diversity to the ecosystem 13.1.4 loss of biodiversity 13.2 Biodiversity conservation <b>NCERT exercise question answer.</b> <b>PYQ'S</b>	
	II	11-15	<b>12 – Annual Day 15 – Guru Nank's Birthday</b>	04			Revision for MPB	

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	III	18-22		05				<b>MPB (XII):</b> 14 Nov-25 Nov CHAPTER 1 TO CHAPTER 13
	IV	25-30	<b>29,30 – Annual Athletic Meet</b>	06				
<b>Dec-24</b>	<b>I</b>	02-07	<b>07 – Sports Day</b>	06				
	<b>II</b>	09-13		05				
	<b>III</b>	16-21	<b>21-Working Saturday, Open House (X &amp; XII)</b>	06				
	<b>IV</b>	23	<b>24,25 – Christmas Holidays</b>	01				
<b>*** Winter Break from 26 Dec to 04 Jan 2025 ***</b>								
<b>Jan-25</b>	<b>I</b>	06-10		05				
	<b>II</b>	13-18	<b>18-Working Saturday, Open House (VI-IX, XI)</b>	06				
	<b>III</b>	20-25	<b>25-Citation Ceremony 25-Open House XII 26-Republic Day</b>	06				
	<b>IV</b>	27-31		05				



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Feb-25	I	01	01 – Farewell XII 01- Open House X	01				
	II	03-07		05				<b>Annual Exam Class IX &amp; XI – 05 Feb-19 Feb 2025</b>
	III	10-14		05				
	IV	17-22	22-Working Saturday (students)	06				
	V	24-28	26-Maha Shivratri	04				
Mar-25	<b>Annual Exam Classes VI-VIII – 25 Feb-10 Mar 2025</b>							

**Note: The examination syllabus as mentioned above is to be considered Tentative. The final syllabus for each exam will be uploaded on the website along with the Date Sheet at the time of the examination.**