

Annual & Weekly Syllabus Split-Up - 2026-27
Grade XII

Subject: Biology

S.No	Month	No. of Working Days	No. of Days	Topic	Sub Topic	Teaching Aids/Resources	Classroom teaching Video Link	Activities	Art Integrated project	Pedagogy Process/Teaching Strategy	Chapterwise Notes link	Assessment		
1	APRIL	25	Week 1	4	C-1 Sexual Reproduction in plants	Flower structure, development of male and female gametophytes; pollination - types, agencies and examples; out breeding devices; pollen-pistil interaction; double fertilization.	senses board, word documents ,ppts,text,Reference books,videos	https://www.youtube.com/watch?v=Dfvyoir_SCY	Flowers adapted to pollination by different agencies (wind, insects, birds). Pollen germination on stigma through a permanent slide or scanning electron micrograph.	Diagram of ovule	Interactive lecture, Activity-ba	https://drive.google.com/file/d/1Eh9nGp5_qsVEapCRN8EikqZRNNsHRChI/view?usp=drive_link	Oral questioning, Worksheet	
			Week 2	6	C-1. Sexual Reproduction in plants	Post fertilization events - development of endosperm and embryo, development of seed and formation of fruit; special modes- apomixis, parthenocarpy, polyembryony; Significance of seed dispersal and fruit formation.	senses board, word documents ,Reference books,videos	https://www.youtube.com/watch?v=yGw0qXl57qg	Prepare a temporary mount to observe pollen germination.	Diagram of germination of seeds	Experiential learning, Collabor	https://drive.google.com/file/d/1Eh9nGp5_qsVEapCRN8EikqZRNNsHRChI/view?usp=drive_link	Class test	
			Week 3	5	MID APRIL TEST - X & XII	Revision	Worksheet							
			Week 4	6	C-2 Human reproduction	Male and female reproductive systems;Gametogenesis - spermatogenesis and oogenesis; menstrual cycle. Pregnancy,parturition and lactation	Textbook, senses board	https://www.youtube.com/watch?v=2gHOv22LTu1	Flow chart of gametogenesis	Flow chart of spermatogenesis and oogenesis	Blended learning, Discussion	https://drive.google.com/file/d/1Tq-NA8SesloqKllwC9yBOMUO56qnTEC/view?usp=drive_link	Homework	
			Week 5	4	C-3.Reproductive Health	Need for reproductive health and prevention of Sexually Transmitted Diseases (STDs); birth control - need and methods, contraception and medical termination of pregnancy (MTP); amniocentesis; infertility and assisted reproductive technologies - IVF, ZIFT, GIFT	senses board, word documents ,ppts,text,Reference books,videos	https://www.youtube.com/watch?v=hb_W80H3cj8	T.S. of blastula through permanent slides (Mammalian).	make a flow chart showing ARTs	Interactive lecture, Activity-ba	https://drive.google.com/drive/folders/1qPM9a58rWs6wtiA_ffMzDyVH9fR3OUZ5?usp=drive_link	Oral questioning, Worksheet	
2	JUNE	20	Week 1	0										
			Week 2	6	C-4.Principles of inheritance and Variations	Mendelian inheritance; deviations from Mendelism.Sex determination and linkage and crossing over. Mendelian disorders	senses board, word documents ,ppts,text,Reference books,videos	https://www.youtube.com/watch?v=1QU2phs-hws	Prepare a temporary mount of onion root tip to study mitosis.	Monohybrid cross	Demonstration method, Inquir	https://drive.google.com/file/d/1gu0nxJBNdNWGSN_tVez29EuGX41Y5uyM/view?usp=drive_link	Assignment, Peer assessment	
			Week 3	6	C-4.Principles of inheritance and Variations	Mendelian inheritance; deviations from Mendelism.Sex determination and linkage and crossing over. Mendelian disorders	senses board, word documents ,ppts,text,Reference books,videos	https://www.youtube.com/watch?v=1QU2phs-hws	Mendelian inheritance using seeds of different colour/sizes of any plant.	Dihybrid cross	Blended learning, Discussion	https://drive.google.com/file/d/1gu0nxJBNdNWGSN_tVez29EuGX41Y5uyM/view?usp=drive_link	Homework	
			Week 4	6	C-5.Molecular Basis of inheritance	Search for genetic material and DNA as genetic material; Structure of DNA and RNA; DNA packaging; DNA replication; Central Dogma; transcription, genetic code, translation.	senses board, word documents ,ppts,text,Reference books,videos	https://www.youtube.com/watch?v=RA9n0Euu5Gw	Draw the structure of DNA	3-D structure of DNA	Interactive lecture, Activity-ba	https://drive.google.com/file/d/13mOz5y_n5UEu-usfzDJRluYzuSdotHLVjiew?usp=drive_link	Oral questioning, Worksheet	

			Week 5	2	C-5.Molecular Basis of inheritance	Search for genetic material and DNA as genetic material; Structure of DNA and RNA; DNA packaging; DNA replication; Central Dogma; transcription, genetic code, translation.	senses board, word documents ,ppts.text,Reference books,videos	https://www.youtube.com/watch?v=RA9n0Enu5Gw			Experiential learning, Collaborative learning	https://drive.google.com/file/d/13mOz5v_n5UEu-usfzDjRlulYzuJSDotHL/vi-ew?usp=drive_link	Quiz, Class test
3	JULY	27	Week 1	4	PERIODIC TEST 1 BEGINS (II-XII)	Revision	Textbook		Worksheet				
			Week 2	6	C-5.Molecular Basis of inheritance	Gene expression and regulation - lac operon; Genome, Human and rice genome projects; DNA fingerprinting.	videos	https://www.youtube.com/watch?v=K53EOjIMt4E	Worksheet	Draw lac operon	Blended learning, Discussion	https://drive.google.com/file/d/13mOz5v_n5UEu-usfzDjRlulYzuJSDotHL/vi-ew?usp=drive_link	Homework
			Week 3	6	C-6.Evolution	Origin of life; biological evolution and evidences for biological evolution (paleontology, comparative anatomy, embryology and molecular evidences); Darwin's contribution, modern synthetic theory of evolution; mechanism of evolution - variation and natural selection with examples, types of natural selection; Hardy- Weinberg's principle; adaptive radiation; human evolution.	senses board, ppts,text,Reference books,videos	https://www.youtube.com/watch?v=llPY6Oo4Lec	Flash cards / models showing examples of homologous and analogous organs.		Interactive lecture, Activity-based learning	https://drive.google.com/file/d/1BQj5wnOH0leRgcKUw50C6dh2KsPvM4M1/view?usp=drive_link	Oral questioning, Worksheet
			Week 4	6	C-7. Human health and diseases	Pathogens; parasites causing human diseases (malaria, dengue, chikungunya, filariasis, ascariasis, typhoid, pneumonia, common cold, amoebiasis, ring worm) and their control;	PPTs,text,Reference books,videos	https://www.youtube.com/watch?v=BVRnNbb9cLU	Common disease causing organisms like Ascaris, Plasmodium fungus causing ringworm through permanent slides, models or virtual images or specimens.	Draw life cycle of Plasmodium	Experiential learning, Collaborative learning	https://drive.google.com/file/d/1k6vDarxfmjn32j6WDa9-NbmJ0XqG05V/view?usp=drive_link	Quiz, Class test
			Week 5	5	C-7. Human health and diseases	Basic concepts of immunology - vaccines; cancer, HIV and AIDS; Adolescence - drug and alcohol abuse.	senses board, word documents ,ppts.text,Reference books,videos	https://www.youtube.com/watch?v=6RHLRFjnOzw	Observe the permanent slides of retrovirus	Draw the life cycle of a retrovirus	Demonstration method, Inquiry based learning	https://drive.google.com/file/d/1k6vDarxfmjn32j6WDa9-NbmJ0XqG05V/view?usp=drive_link	Assignment, Peer assessment
4	AUGUS	24	Week 1	1	C-8.Microbes in Human Welfare	Microbes in food processing	senses board, word documents ,ppts.text,Reference books,videos	https://www.youtube.com/watch?v=IsTVU_Zu9QE	Observe the permanent slides of lactobacillus		Blended learning, Discussion	https://drive.google.com/drive/folders/1qPM9a58rWs6wtiA_fmzDyVH9fR3OUZ5?usp=drive_link	Homework
			Week 2	6	C-8.Microbes in Human Welfare	Microbes in food processing, industrial production, sewage treatment, energy generation	senses board, word documents ,ppts.text,Reference books,videos	https://www.youtube.com/watch?v=ymCQWxwatuik	Worksheet	Draw Biogas plant	Interactive lecture, Activity-based learning	https://drive.google.com/drive/folders/1qPM9a58rWs6wtiA_fmzDyVH9fR3OUZ5?usp=drive_link	Oral questioning, Worksheet
			Week 3	5	C-9.Biotechnology : Principles and Processes	Principles and Processes of Biotechnology.Vectors and Host and PCR.	senses board, word documents	https://www.youtube.com/watch?v=7onjVBsQwQg	Quiz	Draw concept map	Experiential learning, Collaborative learning	https://drive.google.com/file/d/1EzuOt3dW9cMnRES5oCgCwmYZBCKBjkg/view?usp=drive_link	Quiz, Class test

