

KLE ENGLISH MEDIUM SCHOOL

JULE - SOLAPUR

GRADE- XII SYLLABUS SPLIT 2023-2024

XII- BIOLOGY

SR. NO	MONTH	UNIT / SUBUNIT	VALUES	ACTIVITY/ PROJECT	EXAM
1	APRIL (08 Periods)	UNIT VI:Reproduction			
		Chapter-2: Sexual Reproduction in Flowering Plants	To develop scientific skills, disciplinary value		
		Flower structure; development of male and female gametophyte			
		pollination - types, agencies and examples;			
		out breeding devices; pollen-pistil interaction; double fertilization			
		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					
2	APRIL (08 Periods)	Chapter-3: Human Reproduction	Develops social value, disciplinary value	LAB PRACTICALS/ ACTIVITIES &PROJECTS AS PRESCRIBED BY CBSE BOARD	
		Male and female reproductive systems			
		microscopic anatomy of testis and ovary			
		gametogenesis -spermatogenesis and oogenesis,menstrual cycle			
		fertilisation, embryo development upto blastocyst formation,			
		implantation; pregnancy and placenta formation			
		parturition, lactation			
3	APRIL &JUNE (10	Chapter-4: Reproductive Health	Develops social value,		
		Need for reproductive health and prevention of STDs			
		birth control - need and methods			

5	5 JUNE (10 Periods)	contraception and medical termination of pregnancy (MTP) amniocentesis; infertility and assisted reproductive technologies like IVF, ZIFT, GIFT	disciplinary value			
4	JUNE (10 Periods)	Unit-VII Genetics and Evolution Chapter-5: Principles of Inheritance and Variation Heredity and variation: Mendelian inheritance deviations from Mendelism – incomplete dominance co-dominance, multiple alleles and inheritance of blood groups pleiotropy; elementary idea of polygenic inheritance chromosome theory of inheritance; chromosomes and genes Sex determination - in humans, birds and honey bee linkage and crossing over; sex linked inheritance - haemophilia colour blindness, Mendelian disorders in humans - thalassemia chromosomal disorders in humans; Down's syndrome, Turner's and Klinefelter's syndromes	To develop scientific skills, disciplinary value			
5	JULY(12 Periods)	Chapter-6: 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 gene expression and regulation - lac operon, Genome, Human and rice genome projects; DNA fingerprinting	To develop scientific skills,	LAB PRACTICALS/ ACTIVITIES &PROJECTS AS PRESCRIBED BY CBSE BOARD		
6	JULY(12	Chapter-7: Evolution Origin of life; biological evolution and evidences for biological evolution (paleontology, comparative anatomy, embryology and evidences Darwin's contribution, modern synthetic theory of evolution	To develop scientific			

0	Periods)	mechanism of evolution - variation (mutation and recombination)	skills, disciplinary value		
		natural selection with examples, types of natural selection			
		Gene flow and genetic drift; Hardy - Weinberg's principle			
		adaptive radiation; human evolution.			
7	SEPTEMBER (15Periods)	Unit-VIII Biology and Human Welfare			
		Chapter-8: Human Health and Diseases			
		Pathogens; parasites causing human diseases(malaria,dengue, and chikungunya,filariasis,ascariasis,typhoid, pneumonia,common	To develop scientific skills, disciplinary value		
		and their control; Basic concepts of immunology - vaccines; cancer, HIV and AIDS; Adolescence - drug and alcohol abuse		LAB PRACTICALS/ ACTIVITIES &PROJECTS AS PRESCRIBED BY CBSE BOARD	
8	SEPTEMBER (12Periods)	Chapter-10: Microbes in Human Welfare			
		Microbes in food processing, industrial production, sewage treatment, energy generation and microbes as bio-control agents and bio-fertilizers. Antibiotics; production and judicious use	To develop scientific skills, disciplinary value		
9	OCTOBER				
10	NOVEMBER (08 Periods)	Unit-IX Biotechnology and its Applications			
		Chapter-11: Biotechnology - Principles and Processes			
		Genetic Engineering (Recombinant DNA Technology)	To develop scientific skills,		
11	NOVEMBER (08 Periods)	Chapter-12: Biotechnology and its Applications			
		Application of biotechnology in health and agriculture: Human and vaccine production, stem cell technology, gene therapy; genetically modified organisms- Bt crops; transgenic	To make aware about environmental issues, problems and their appropriate solutions	LAB PRACTICALS/ ACTIVITIES &PROJECTS AS PRESCRIBED BY CBSE BOARD	
		biopiracy and patents			

12	NOVEMBER R(08 Periods)	Unit-X Ecology and Environment Chapter-13: Organisms and Populations Population interactions - mutualism, competition, predation, pa population attributes - growth, birth rate and death rate, age di	To make aware about environmental issues, problems and their appropriate solutions	LAB PRACTICALS/ ACTIVITIES &PROJECTS AS PRESCRIBED BY CBSE BOARD	PERIODIC TEST 2	
12	DECEMBER(08 Periods)	Chapter-14: Ecosystem Ecosystems: Patterns, components; productivity and decompos energy flow; pyramids of number, biomass, energy	To develop scientific attitude towards issues related to population, environment			
13	DECEMBER(08 Periods)	Chapter-15: Biodiversity and its Conservation Biodiversity-Concept, patterns, importance; loss of biodiversity biodiversity conservation; hotspots, endangered organisms, ext Red Data Book, Sacred Groves, biosphere reserves national parks, wildlife, sanctuaries and Ramsar sites	enhance awareness about environmental issues, problems and their appropriate solutions			
CHAPTER 1-15 FOR CBSE BOARD EXAMINATION						