KENDRIYA VIDYALAYA, EMBASSY OF INDIA, KATHMANDU NEPAL

SPLIT UP OF SYLLABUS 2026-27

CLASS: XII B **SUBJECT: BIOLOGY**

S. No	MONTH	NAME OF THE CHAPTER	TOPICS	NUMBER OF PERIODS REQUIREDS	REMARKS
1	APRIL	UNIT VI : REPRODUCTION CHAPTER 1: SEXUAL REPRODUCTION IN FLOWERING PLANTS CHAPTER 2 : HUMAN REPRODUCTION CHAPTER 3 : REPRODUCTIVE HEALTH	CHAPTER 1: SEXUAL REPRODUCTION IN FLOWERING PLANTS Flower structure; development of male and female gametophytes; 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. CHAPTER 2 : HUMAN REPRODUCTION Male and female reproductive systems; microscopic anatomy of testis and ovary; gametogenesis -spermatogenesis and oogenesis; menstrual cycle; fertilisation, embryo development upto blastocyst	21	Monthly test

			formation, implantation; pregnancy and placenta formation (elementary idea); parturition (elementary idea); lactation (elementary idea) CHAPTER 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 (elementary idea for general awareness).		
2	MAY	UNIT VII : GENETICS & EVOLUTION CHAPTER 4 : PRINCIPLES OF INHERITANCE & VARIATION CHAPTER 5: MOLECULAR BASIS OF INHERITANCE	CHAPTER 4 : PRINCIPLES OF INHERITANCE & 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	20	Monthly Test

			Klinefelter's syndromes.		
3	**JUNE**	**UNIT VII : GENETICS & EVOLUTION (CONTD.)** **CHAPTER 5: MOLECULAR BASIS OF INHERITANCE (CONTD)**	**. CHAPTER 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;**	**25**	**PT 1**
4	**JULY**	**UNIT VIII :** **BIOLOGY IN HUMAN WELFARE** **CHAPTER 6 : EVOLUTION** **CHAPTER 7: HUMAN HEALTH & DISEASE**	**CHAPTER 5: MOLECULAR BASIS OF INHERITANCE (CONTD)** **transcription, genetic code, translation; gene expression and regulation - lac operon; Genome, Human and rice genome projects; DNA fingerprinting.** **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 (mutation and recombination) and natural selection with**	**25**	**Monthly test**

		CHAPTER 8: MICROBES IN HUMAN WELFARE	examples, types of natural selection; Gene flow and genetic drift; Hardy- Weinberg's principle; adaptive radiation; human evolution CHAPTER 7: HUMAN HEALTH & DISEASE Pathogens; parasites causing human diseases (malaria, dengue, chikungunya, filariasis, ascariasis, typhoid, pneumonia, common cold, amoebiasis, ring worm) and their control; Basic concepts of immunology - vaccines; cancer, HIV and AIDS; Adolescence - drug and alcohol abuse. CHAPTER 8: 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 judicioususe.		
5	AUGUST	UNIT IX : BIOTECHNOLOGY AND ITS APPLICATION CHAPTER 9: BIOTECHNOLOGY PRINCIPLES AND PROCESSES	CHAPTER 9: BIOTECHNOLOGY PRINCIPLES AND PROCESSES Genetic Engineering (Recombinant DNA Technology) CHAPTER 10: BIOTECHNOLOGY & ITS APPLICATION	20	Half Yearly Exams

		CHAPTER 10: BIOTECHNOLOGY & ITS APPLICATION	**Application of biotechnology in health and agriculture: Human insulin and vaccine production, stem cell technology, gene therapy; genetically modified organisms - Bt crops; transgenic animals; biosafety issues, biopiracy and patents.**		
6	**SEPTEMBER**	**UNIT X: ECOLOGY & ENVIRONMENT** **CHAPTER 11: ORGANISM & POPULATIONS** **CHAPTER 12 : ECOSYSTEM**	**CHAPTER 11: ORGANISM & POPULATIONS** **Population interactions - mutualism, competition, predation, parasitism; population attributes - growth, birth rate and death rate, age distribution. (Topics excluded: Organism and its Environment, Major Aboitic Factors, Responses to Abioitic Factors, Adaptations)** **Chapter-12 : Ecosystem** **Ecosystems: Patterns, components; productivity and decomposition; energy flow; pyramids of number, biomass, energy (Topics excluded: Ecological Succession and Nutrient Cycles).**	**25**	**Monthly test**
7	**OCTOBER**	**UNIT X: ECOLOGY & ENVIRONMENT (CONTD.)** **CHAPTER 13: BIODIVERSITY & ITS**	**UNIT X: ECOLOGY & ENVIRONMENT (CONTD.)** **CHAPTER 13 : BIODIVERSITY & ITS CONSERVATION** **Biodiversity-Concept, patterns, importance; loss of biodiversity;**	**20**	**Monthly Test**

		CONSERVATION **COMPLETION OF COURSE & REVISION FOR 1ST PRE-BOARD**	**biodiversity conservation; hotspots, endangered organisms, extinction, Red Data Book, Sacred Groves, biosphere reserves, national parks, wildlife, sanctuaries and Ramsar sites.** **COMPLETION OF COURSE & REVISION FOR 1ST PRE-BOARD**		