

Board of School Education Haryana, Bhiwani

Senior Secondary Syllabus (Open)

Session : 2012-13

Sub. : Biology

Unit II Reproduction

Reproduction in organisms – Asexual, sexual and vegetative reproductions, reproduction in flowering plants – Flowers, perfertilization structure and events, apomixes and polyembryony. Development of seeds and fruits.

Human Reproduction – The male reproductive system, female reproductive system, Gametogenesis, menstrual cycle, Fertilization and implantation, pregnancy and embryonic development, parturition and lactation.

Reproductive Health – Problem and strategies, population explosion and birth control, medical termination & pregnancy. (MTP), STD and infertility.

UNIT VII Genetics and Evolution

Mendelian inheritance, Chromosome theory of inheritance, Deviation from Mendelian inheritance (gene interaction), sex determination in human beings XX, XY.

Linkage and crossing over, inheritance pattern of haemophilia and blood groups in human beings.

DNA Replication, transcription and translation. Gene expression and regulation, DNA Finger printing, Genetic code.

Evaluation – Theories and evidences.

UNIT VIII Biology in Human Welfare

Animal husbandry, basic concepts of immunology, vaccines, pathogens, parasites, plant breeding, tissue culture, food production, microbes in house hold processing, industrial production sludge treatment and energy generation.

Cancer & AIDS, adolescence and drug/alcohol abuse.

UNIT IX Biotechnology

Recombinant DNA Technology, application in health, agriculture and industry, genetically modified organisms (GM), biosafety tissues. insulin and B.T. Cotton.

UNIT X Ecology

Ecosystem - Component types and energy, food level, species, population and community.

Ecology adaptation, color of diversity and conservation of biodiversity, National parks and sanctuaries.

Environmental issues – Pollution and deterioration, Global warming, Ozone layer depletion, underground water level, threat to biodiversity (with reference to wild life)