Write short notes on
A) Karyotype  B) Haploid  C) Crossing over  D) Cytokinesis  E) Genetic recombination
F) Centrosome  G) Centromere  H) trisomy  J) malignant tumor  K) radiation therapy
L) homologous chromosomes  M) Down Syndrome  N) test cross  O) alleles

Differentiate between
A) Klinefelter syndrome and Down syndrome  B) Centrosome and Centromere
C) Nondisjunction and Chiasmata  D) haploid and polyploid  E) sexual and asexual
reproduction  F) Mutagen and carcinogen  G) Autosomes and allosomes

Differentiate between the following
a) genotype and phenotype
b) linkage and crossing over
c) monohybrid and dihybrid cross
d) karyotyping and pedigree analysis
e) homozygous and heterozygous
f) dominant and recessive disorders
g) incomplete dominance and codominance

Differentiate between the following
a. lysogenic and lytic cycles
b. rRNA and tRNA
c. transcription and translation
d. introns and exons
e. bacteriophage and prophage

Write short notes on the following
Polynucleotide
Double helix
Genetic code
Point mutation
Frame shift mutation
Stop codon
Emerging viruses

Write short notes on the following:
A) Nucleosome  B) differentiation  C) transcription factors  D) Central Dogma of biology
E) cell signalling  F) reproductive cloning  G) stem cells

Differentiate between the following
A) lac operon and trp operon  B) Promoter and repressor  C) transcription and translation
D) Signal reception and transduction  E) Porotoncogen and carcinogens
Write short notes on the following:
A) Transformation B) transduction C) Recombinant DNA D) Restriction enzymes E) Genomic library F) gel electrophoresis G) PCR H) plasmids H) Shotgun method I) Reverse transcriptase

Differentiate between the following:
A) DNA fingerprint and thumb prints B) Polymerase chain reaction and reverse transcriptase reaction C) R-plasmids and Ti plasmid D) therapeutic cloning E) stem cells

What are Genetically Modified Organisms (GMOs)?

Is it ethical to introduce foreign genes into our food crops?

What is gene therapy, use SCID example to illustrate how this process is carried out.