Guru Gobind Singh Public School Chas Bokaro
Assignment For std XII 2020=21
subject: (Biology)

MAIN TOPICS:

1. **Mendel's experiment**
2. **Mendel's law**
3. **Fpew exceptions to the mendel's law**
4. **Chromosomal theory of inheritance**
5. **Linkage and recombination**
6. **Mandal disorders**
7. **Genetic disorders**
8. **Chromosomal disorders**
9. **Mechanism of sex determination**
10. **Sex determination in humans**
11. **Sex determination in honey bees**
12. **Mutation**
13. **Pedigree analysis**

[Note: write short notes on above mentioned topics]

Important questions:

1.Mention the advantages of selecting pea plant for experiment by Mandal.

2. Differentiate between the following:

(a). dominance and recessive

(b) Homozygous and heterogeneous

(c) monohybrid and dihybrid

3. Explain the law of dominance using a monohybrid cross

4.Define and design a test cross.

5. Briefly mention the contribution of th Morgan in Genetics .

6.What is Pedigree analysis ? Suggest How such an analysis can be useful .

7.How is sex determined in human beings?

8.Explain the following terms with example

(a) codominance

(b) incomplete dominance

9.What is a point mutation ? Give an example .

10. Mention any two autosomal genetic disorders with their symptoms.

CH:06 molecular basis of inheritance

MAIN TOPICS:

1.Search for genetic material

2.DNA and RNA

3.Central dogma

4.replication

5.transcription

6.translation

7. Human Genome Project

8.DNA fingerprinting

9.genetic code

10 mutation

11.t-RNA

12.ribosome

13 regulation of gene expression

[note :write short notes on above mentioned topics]

Important questions :

1.Group the following as nitrogenous bases and nucleotides :

Adenine cytidine thymine guanosine uracil and cytosine.

2 If a double stranded DNA has 20% of cytosine, calculate the percentage of adenine in the DNA .

3 Which property of DNA double helix LED Watson and Crick to hypothesize semiconservative mode of DNA replication? Explain

4. How did Hershey and chase differentiate between DNA and protein in their experiment while proving that DNA is genetic material ?

5. List two essential roles of ribosome during translation .

6.why is the Human Genome Project called a mega project ?

7.what is DNA fingerprinting ?mention its application

8. Briefly describe the following: transcription, polymorphism, translation ,bioInformatics.