

**A.S.D GOVT. DEGREE COLLEGE FOR WOMEN (A),**  
(Re- Accredited by NAAC with B Grade)  
Jagannaickpur, Kakinada-533002, East Godavari, AP

**DEPARTMENT OF ZOOLOGY & AQUACULTURE**  
**TECHNOLOGY**

**2019-2020**



**Group Discussion**

**On**

**Genetics**

# ASD Govt. Degree College for Women (A)

Jagannaickpur, Kakinada

## Activity register 2019-2020

Date	22-8-19
Conducted through (DRC/JKC/NCC/NSS/Department)	Department of zoology
Nature of Activity (Seminar/Workshop/Extn. Lecturer ect.)	Group Discussion
Title of the Activity	Genetics
Name of the Department/Committee	Department of zoology
Details of Resource Persons (Name. Designation ect.)	U. Satyanarayana N. Veera Chanti B. Sonia
No. of Students Participated	24
Brief Report on the Activity	To raise the spirit of the students developing their skills on general knowledge besides learning
Name of the Lecturers who Planned & Conducted the Activity	U. Satyanarayana N. Veera Chanti B. Sonia
Signature of the in Charge	Dr.K.Aruna lecturer in microbiology
Signature of the Principal	H. Suvachala 9/9/19
Remarks	

## \* Genotypic sex determination [GSD]

The term genotypic sex determination signifies that the sex of a developing organism is determined primarily by its genotype - in other words, the alleles that it carries at one or more sex-determining loci.

1. sex chromosomal sex-determining systems :- sex in many organisms is determined by a pair of chromosomes the sex chromosome, which differ between males and females.

A. XX-XY sex determination :- Many organisms, including some plants, insects, and reptiles and all mammals, have the XX-XY sex-determining system. In mammals, the Y chromosome is absolutely essential for the production of males. In the XX-XY system of sex determination, which operates in eutherian mammals, the cells of males and females have the same number of chromosomes, but the male contains one X-chromosome and one Y-chromosome, whereas the female contains two X chromosomes. In this case, the male is called the heterogametic sex (XY), in contrast, the female is the homogametic sex.

Human beings have 46 chromosomes out of which 22 pairs are autosomes and 1 pair is the sex chromosomes set.

## B. XX-XO sex determination :

In some insects, sex is determined by the XX-XO system. In this system, females have two X chromosomes (XX), and males possess a single X chromosome. There is no O chromosome; the letter O signifies the absence of a sex chromosome. For these organisms, the number of X chromosomes in relation to the autosomal chromosomes determines maleness or femaleness. Two doses of X produce a female. One X produces a male.

In the XX-XO system.,

- Females (XX) are homogametic, which means that every gamete that the individual produces has the same set of chromosomes composed of one of each autosome and one X.
- Males (XO) are heterogametic, their sperm can come in two different types. Half of a male's gametes have one set of autosomes and an X; the other half have one set of autosomes and no sex chromosome at all.

## C. ZZ-ZW sex determination :-

In this system, the female is heterogametic

and the male is homogametic. To prevent confusion with the XX-XY system, the sex chromosomes in this system are labelled Z and W, even though the chromosomes do not resemble the letters Z and W.

Females in this system are ZW; after meiosis, half of the eggs have a Z chromosome and other half have a W chromosome. Males are ZZ all sperm contain a single Z chromosome.

# Group discussion on genetics.

22/8/19



GD



A.S.D Govt. Degree College for women (A).

No.	Name of the student	Class/Group	Signature
1.	D. Vani Sri	IV <sup>th</sup> B.Sc (CBZ)	D. Vani Sri
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5.	M.Parimala	II B.Sc (CBZ)	M.Parimala
6.	R. Bhagya sri	II B.Sc (CBZ)	R. Bhagya sri
7.	P. varalakshmi	II B.Sc (CBZ)	P. varalakshmi
8.	P. konda devi	II B.Sc (CBZ)	P. konda devi
7.	R. Sotavani	IV B.Sc (CBZ)	R. Sotavani
10.	A. Pavani naga Durga	II B.Sc (CBZ)	A. Pavani naga Durga
11	P. Satya Jara	II B.Sc (CBZ)	P. Satya Jara
12.	Ch. vata laxmi	IV B.Sc (CBZ)	Ch. vata laxmi
13.	T. vata laxmi	IV B.Sc (CBZ)	T. vata laxmi
4.	Gr. krishnaveni	II B.Sc (CBZ)	Gr. krishnaveni
5.	P. Srinu	II B.Sc (CBZ)	P. Srinu
6.	Ch. varalakshmi	II B.Sc (CBZ)	Ch. varalakshmi
17	G. Dhanalakshmi	II B.Sc (CBZ)	G. Dhanalakshmi
18	Ch. varalakshmi	II B.Sc (CBZ)	Ch. varalakshmi
19.	K. Snehalatha	II B.Sc (CBZ)	K. Snehalatha
20	A. Sita mahalakshmi	II B.Sc (CBZ)	A. Sita mahalakshmi
21	U. Pujitha	II B.Sc (CBZ)	U. Pujitha
22	Gr. meghana sri	II B.Sc (CBZ)	Gr. meghana sri
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5.	K. Mahalakshmi	II BSc (CBZ)	K. Mahalakshmi
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7.	Ch. Durga Bhavani	II BSc (CBZ)	Ch. Durga Bhavani
8.	K. Jarnico	II BSc (CBZ)	K. Jarnico
9.	K. S.D. Siree Mahalakshmi	II BSc (CBZ)	K.S.D. Mahalakshmi
10.	T. Sireesha	II BSc (CBZ)	T. Sireesha
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12.	M. Sai Pushpa	II BSc (CBZ)	M. Sai Pushpa
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