

*Ajuni*

*Ajuni*

*Vaishali sharma*

हस्ताक्षर

कक्ष निरीक्षक का नाम

परीक्षार्थी का पूरा नाम

परीक्षार्थी द्वारा सम्पूर्ण विवरण भर लिए गये है।



R

2018-

भाग-2

M.Sc. Internal

# चौधरी चरण सिंह विश्वविद्यालय, मेरठ Ch. Charan Singh University, Meerut

निम्नलिखित विवरण परीक्षार्थी द्वारा स्वयं भरा जाए (To be filled by the Examinee)

परीक्षा का नाम *M.Sc. Ist year* वर्ष 20 *2019* भाग/सेमेस्टर *IInd*  
(Name of Exam) (Year 20.....) (Part / Semester)

विषय *Zoology* प्रश्न-पत्र/पाठ्यक्रम *H-1067* पेपर कोड नं.  
(Subject) (Paper / Course) (Paper Code No.)

परीक्षा का दिन *Thursday* दिनांक *28/3/19*  
(Day of Examination) (Date)

प्राप्तांक एवं पूर्णांक परीक्षकों द्वारा भरे जायें

पूर्णांक (Max. Marks)

प्रश्नों की क्रम संख्या	a/I	b/II	c/III	d/IV	e/V	f/VI	g/VII	h/VIII	i/IX	j/X	योग
1	1	1	1	1	1						5
2	2	2									4
3	3	3									6
4											
5											
6											15
7											
8											
9											
10											
11											
12											
13											
14											

प्राप्तांक

(शब्दों में)	अंकों में
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जाँचकर्ता के हस्ताक्षर एवं तिथि

परीक्षक के हस्ताक्षर एवं तिथि



# 2018- चौधरी चरण सिंह विश्वविद्यालय, मेरठ

अध्यक्षक निदेशों के तहत पूरा भाग देयें

Date Stamp to be affixed here

परीक्षा का नाम *M.Sc. Ist year* भाग/सेमेस्टर *IInd*  
विषय *Zoology - Genetics*  
प्रश्न पत्र *28/3/19*

परीक्षार्थी का अनुक्रमांक (Roll Number)

उत्तर-पुस्तिका क्रमांक

**KM-I-01-**

कालेज कोड  
018

(परीक्षार्थी की श्रेणी)

- संस्थागत
- व्यक्तिगत
- बैक पेपर
- अंक सुधार
- भूतपूर्व
- एकल विषय

नामांकन संख्या (Enrollment Number)

पेपर कोड

M 15541386

H-1067

परीक्षार्थी का पूरा नाम  
*Vaishali sharma*

कक्ष निरीक्षक का नाम  
*Ajuni*

## Section 'A'

Ques 1 Initially Mendel do experiment on animal but ~ they are resurgated to the social people so He start experiments on plants.

→ He select the Pea plant b/c in plant & this plant close pollination are found. haploid in nature. Pea plant are the self fertilizes plant.

→ In this self pollination are found.

Q-2. Termination Codon  $\rightarrow$  Termination Code is the code which know amino-acid assigned.

$\rightarrow$  So when they come in m-RNA, there is no changes in +- sign.

$\rightarrow$  Termination Codon are know as Non-sense Codon. b/c There is no sense Codon

$\rightarrow$  3 type of Non-sense Codon

- 1) UAA
- 2) UAG
- 3) UGA

Q-3

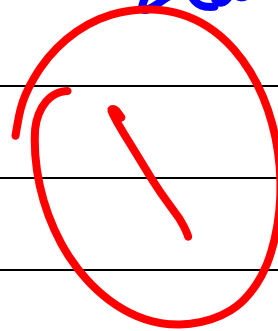
GISH  $\Rightarrow$  Genome in Situ Hybridization

$\Rightarrow$  Genome - in situ hybridization is the cytogenetic technique.

$\Rightarrow$  its technique used make

$\Rightarrow$  GISH is the large process technique.

$\Rightarrow$



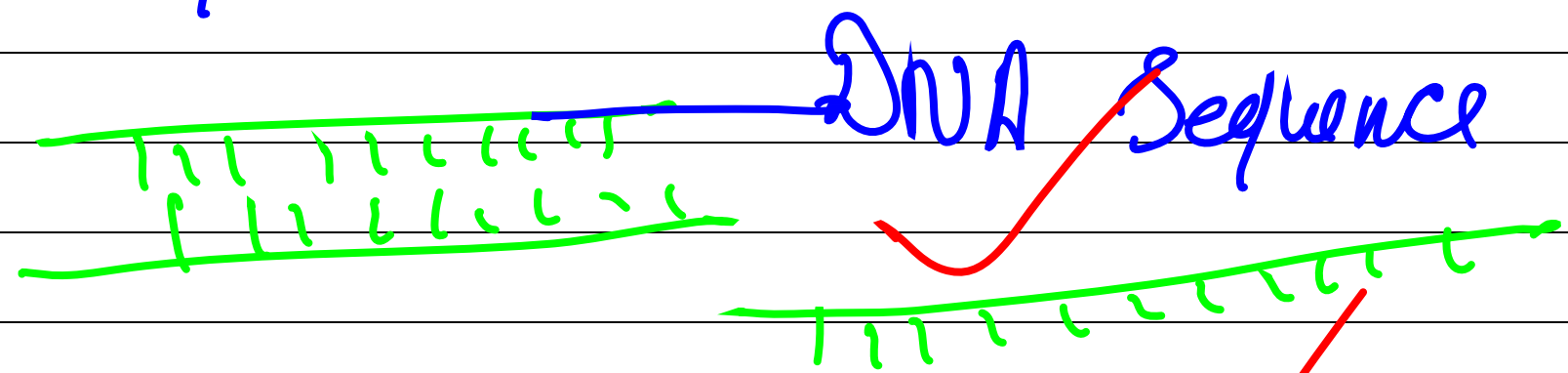
Q-4. PCR  $\rightarrow$  Polymerised chain Reaction.

- $\rightarrow$  PCR is a technique which is used in the experimental lab.
- $\rightarrow$  PCR is used to make copies of any DNA sequence.
- $\rightarrow$  PCR is called Photocopy machine of Genome Sequence.
- $\rightarrow$  By the PCR process we make many copies of gene sequence for experimental uses.
- $\rightarrow$  By the PCR - process 1st DNA sequence separate by the heating.

→ This process is known as Denaturing. The PCR process is complete in one hour.

→ This process provides many copies of DNA sequence.

→ When we cool the DNA sequence it attaches again.

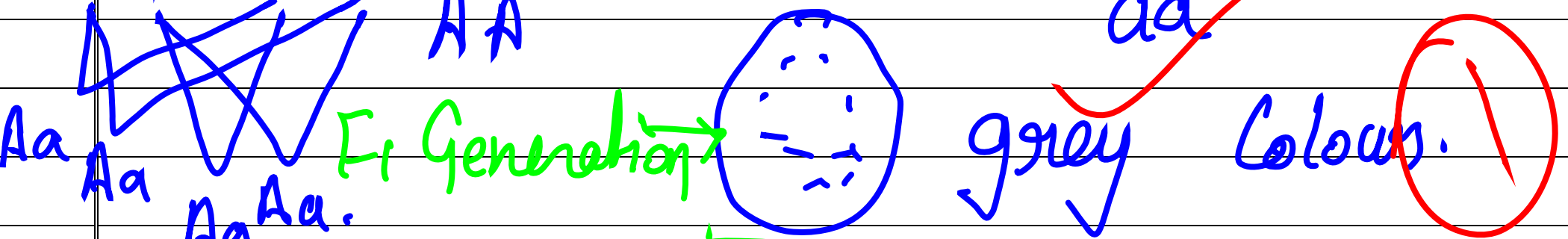
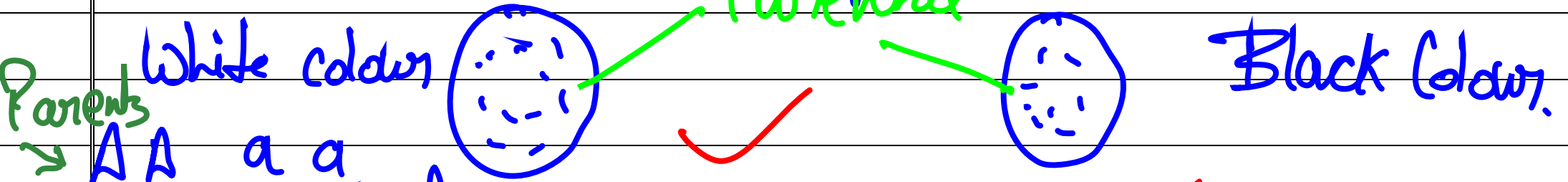


→ On the Denaturation step Probes are separated.

# SS CO-Dominance

the Deviation of Mendelian inheritance

Co-Dominance is



F<sub>1</sub> Generation.

When we make a cross b/w a white animal & a black colour animal we found a grey colour of animal.

# Section 'B'

Q

## Criminal Syndrom

Criminal Syndrom  
is the Genetic Disorder. which  
appears due to change in  
chromosomes number.

→ Criminal syndrom found in  
Super male.

→ In Super male have 47  
chromosome.



→ Musculation large & high.  
 → Mainly sectioned.

→ They look like normal man  
 but they are mainly sectioned.

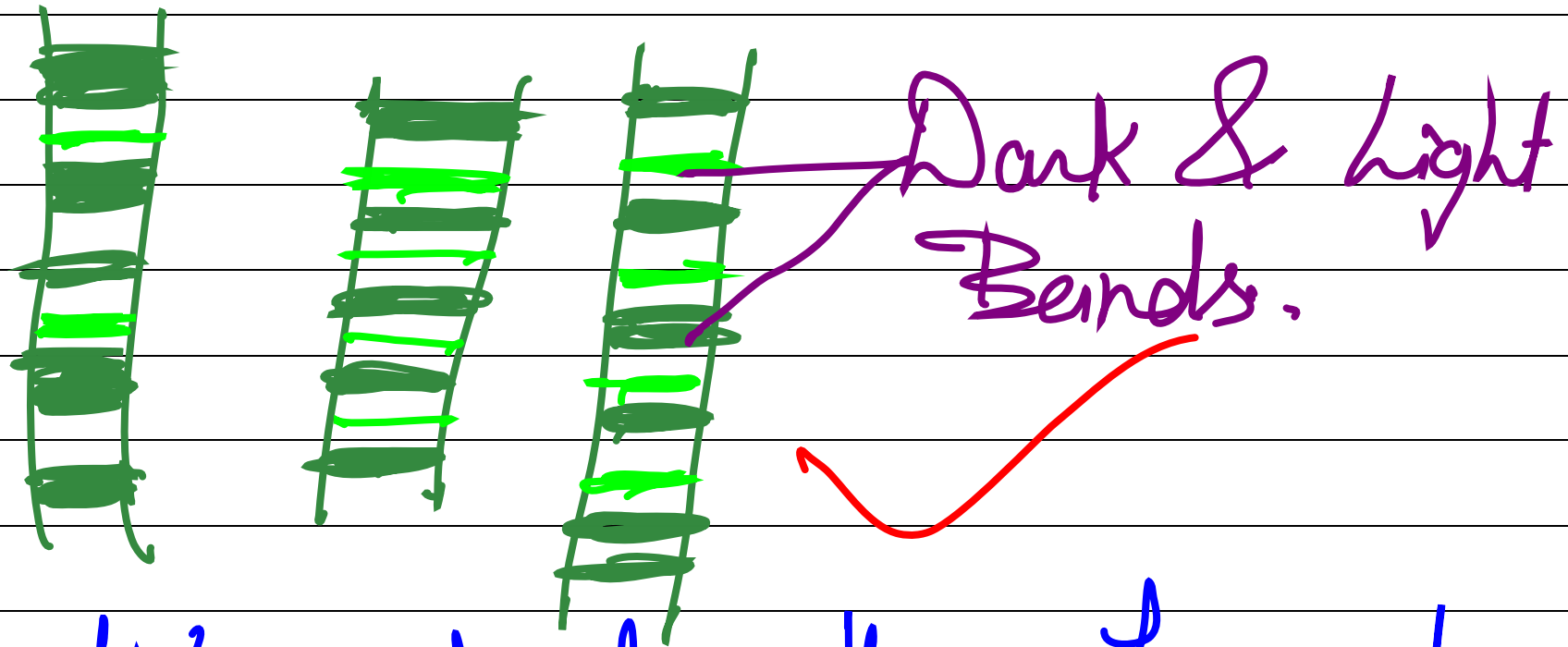
→ They are the high musculature  
 Mainly sectioned so  
 at the result they  
 do crime so it is  
 called criminal syndrome.

②

# Cytogenetic Map

is the visual appearance  
in under microscope.

→ In this fragments Dark &  
light band appeared.



- Scientist under intihute a visual the fragments  
 microscope at National  
 Genomic sequence.
- Various types of Map are found  
 → Physical Map

# Section 'C'

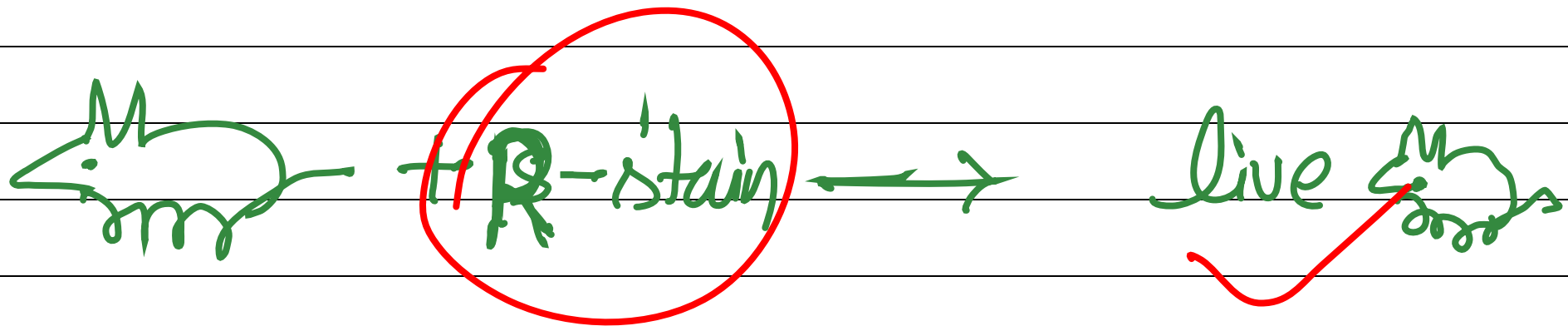
Q10

Gene transfer →

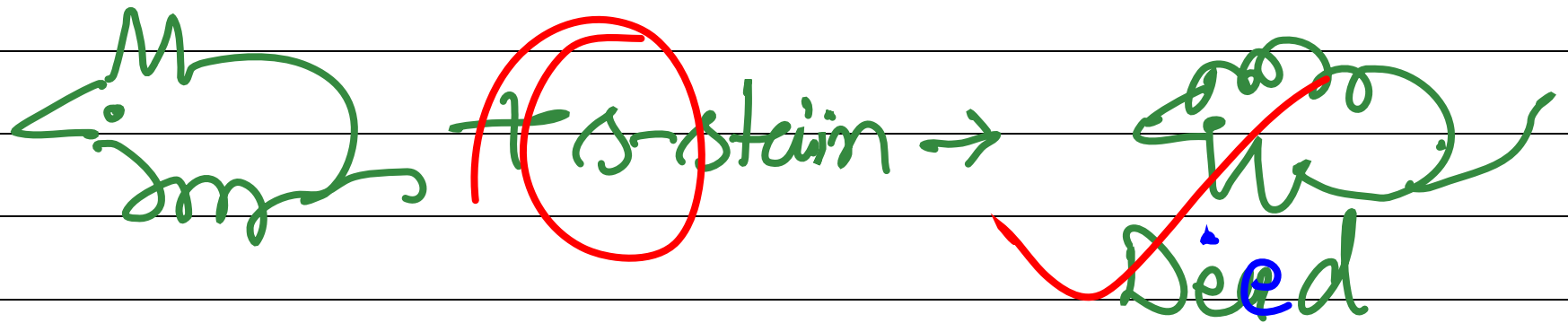
to explain the Genetics first try  
 the genetic material. Is  
 which transfer the character 1st  
 generation to second generation  
 → Genetics give the experiment  
 on mouse with the help  
 of S-stain and R-stain.

→ S-stain is the smooth stain  
 & R-stain is the Rough stain.

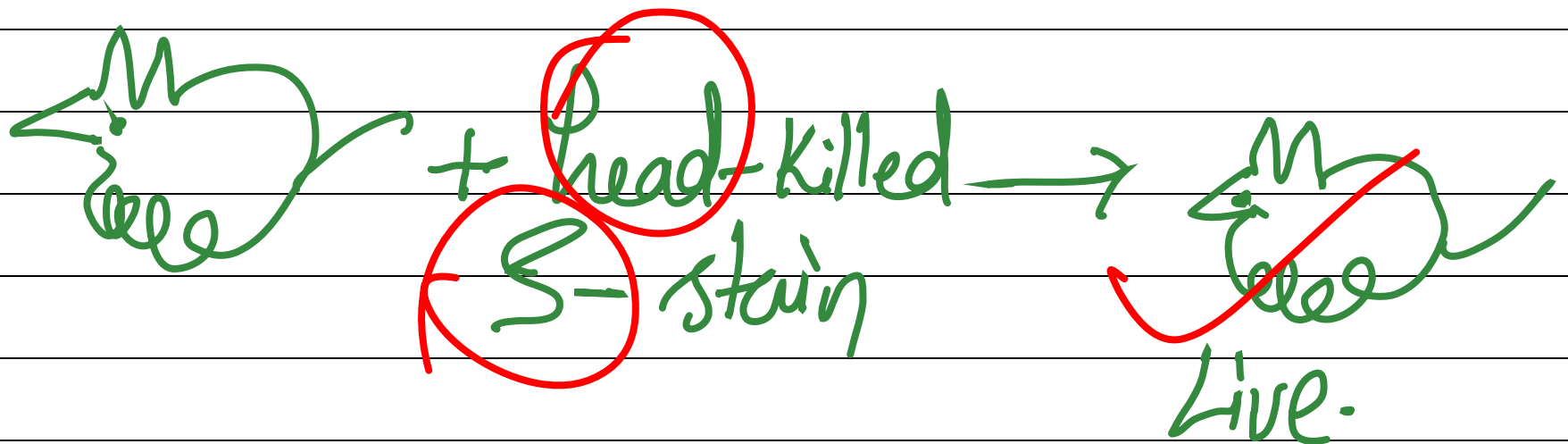
Experiment →



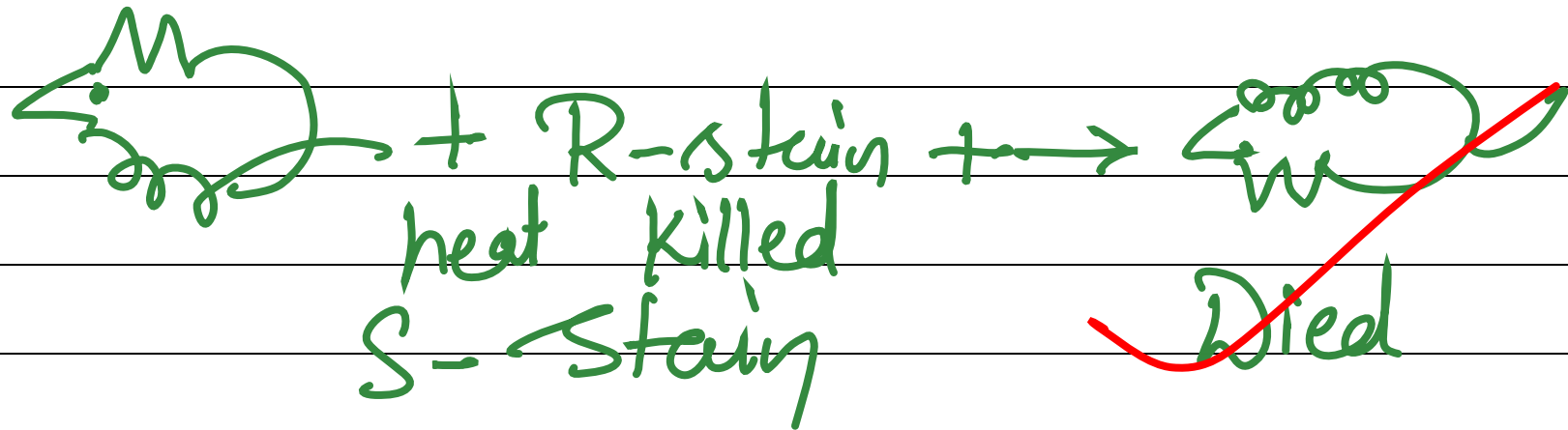
In 1st process when in mice inject  
 S-stain the mice is live.



When in mice we injected the  
 S-stain the mice is ~~Died~~.  
 Died.



than in mice we inject  
 heat - killed S-stain the mice  
 is live.

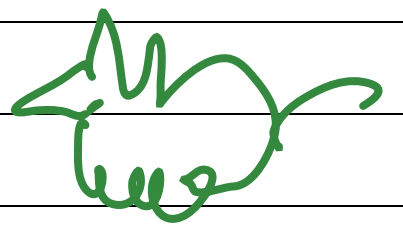


In our last experiment in mice  
 we inject R-stain on heart  
 killed S-stain the mice is  
 Died.

After Griffith experiment - Every,  
Michel & Marmaduke give ✓,  
this experiment.

 + DNAase → ✓ Live.

 + RNAase → ✗ Dead.

 + Protease → ✗ Dead.



- Every, Michul & Machard proff that DNA is the genetic material.
- which transfers the character 1st Generation to 2nd Generation.
- DNA is the Double helick str. of DNA probe.
- DNA - is the Di-Oxi Ribonucleic acid
- In DNA Ribose Sugar is present

# Summary of Genetic Disorders →

## ↳ Autosomal Disorders.

↳ Down Syndrome

↳ Edwards Syndrome

↳ Klinefelter Syndrome

↳ Turner Syndrome

↳ Amino Acids →

↳ PKU

~~Simple~~

Q1

# Genetic Disorder

Genetic Disorders are change occur in chromosome due to the Number.

2 types of Genetic Disorders are found → Autosomal Disorder → Alosomal Disorder.

Alosomal Disorder are chromosome Disorder.

# Autosomal Disorders

are found in numbers of chromosomes. Due to change in Autosomal Disorders

- They are the Mainly retained.
- Look like Mongolian.
- Furged upper lips.
- Continuous salivation.
- Autosomal Disorders are the trisomi.
- Mother age above 40 years.
- they live short life only 24-25 years.

Autosomal Disorders are Many types → 1) Down Syndrome.

2) Patau's syndrome

3) Klinefelter Syndrome.

Down Syndrome → they are the trisomy.

→ Mentally Retarded  
 → Continuous salivation  
 → Fingert

Retarded salivation upper lips.

- The ratio of Down Syndrome is 1 : 5000.
- Down syndrome found on 18th chromosome.
- 1 children are affected by the Down Syndrome in 5 thousand children.

- Edward Syndrome
- also mainly characterized by continuous salivation. they are the
  - look like Mongolian.

→ The ratio of Patau's syndrome  
 is 1:10,000. √  
 → Only one children affected  
 by ~ the Patau's syndrome  
 in ten thousand children.

⇒ live short life only  
 14-15 years.

Klinefelter syndrome

47 chromosome. this are the  
 Super male. If have

→ It is the Autosomal Genetic Disorder.

→ it is also called Criminal Syndrome.

→ they are the mainly, retained.  
→ Continuous Salivative.

→ Upper lip furred.



## AKU Syndrome

→ short life. they live very  
 → but they are the abnormal humans  
 look like normal-humans!

## Turner Syndrome

→ they are the infertile sterilis.

Patau Syndrome →

→ Mainly autised.

→ 1:5000

→ Continuous  
→ look like

Salivation.  
Mangeolian.

PKU →

Phenyl ketonuria  
syndrome.

