

अनुक्रमांक (अंकों में)

अनुक्रमांक (शब्दों में)

Priiti Bhatta

परीक्षार्थी का पूरा नाम

कक्ष निरीक्षक का 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 वर्ष 2019 भाग/सेमेस्टर II  
 (Name of Exam) (Year 2019) (Part / Semester)

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

परीक्षा का दिन Thursday दिनांक 28/03/19  
 (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    | 2     |      |     |      |       |        |      |     |     |
| 2                       | 2   |      |       |      |     |      |       |        |      |     |     |
| 3                       | 3   |      |       |      |     |      |       |        |      |     |     |
| 4                       |     |      |       |      |     |      |       |        |      |     |     |
| 5                       |     |      |       |      |     |      |       |        |      |     |     |
| 6                       |     |      |       |      |     |      |       |        |      |     |     |
| 7                       |     |      |       |      |     |      |       |        |      |     |     |
| 8                       |     |      |       |      |     |      |       |        |      |     |     |
| 9                       |     |      |       |      |     |      |       |        |      |     |     |
| 10                      |     |      |       |      |     |      |       |        |      |     |     |
| 11                      |     |      |       |      |     |      |       |        |      |     |     |
| 12                      |     |      |       |      |     |      |       |        |      |     |     |
| 13                      |     |      |       |      |     |      |       |        |      |     |     |
| 14                      |     |      |       |      |     |      |       |        |      |     |     |

प्राप्तांक

|              |           |
|--------------|-----------|
| (शब्दों में) | अंकों में |
|--------------|-----------|

जाँचकर्ता के हस्ताक्षर एवं तिथि

परीक्षक के हस्ताक्षर एवं तिथि



# चौधरी चरण सिंह विश्वविद्यालय, मेरठ

Date Stamp to be affixed here

मार्ग-3

(परीक्षार्थी द्वारा भरा जाए)

परीक्षा का नाम M.Sc भाग/सेमेस्टर II  
 विषय Zoology  
 प्रश्न पत्र Genetics दिनांक 28/03/19

परीक्षार्थी का अनुक्रमांक (Roll Number)

उत्तर-पुस्तिका क्रमांक

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| M | A | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| B | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| C | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| D | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| E | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| F | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| G | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| H | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| I | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| J | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| K |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| L |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| P |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| S |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| T |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| U |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| V |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| W |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

KM-I-01-

कालेज कोड

018

(परीक्षार्थी की श्रेणी)

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

नामांकन संख्या (Enrollment Number)

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| M | J | 5 | 5 | 3 | 3 | 9 | 8 | 4 |   |   |   |   |   |   |   |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |

पेपर कोड

H-1067

परीक्षार्थी का पूरा नाम

Priiti Bhatta

कक्ष निरीक्षक का नाम

Ajnis

# Section - A

~~why pea  
not plant~~

Ans = 1

?

⇒ Mendel is a clizermen.  
 Firstly Mendel was start  
 his work on the mouth,  
 fly and animal.  
 But local people approach  
 for his experiment.  
 So, Mendel was start  
 his work on pea plant

①

Ans = 2

## Termination Genetic Code -

⇒ Termination codon are the  
the codon of non-sense  
codon.

The Termination ~~codon~~ are

1. GUG - (umber)
2. AGA - Amber
3. UAA -

Ans = 3

GISH -

Genomic In situ Hybridization is a cytogenetic hybridization. GISH is the formation of fluorescence in situ hybridization. GISH is the procedure are the antibody working of the model. They are found the directly or Indirectly.

Ans = 7

PCR :- <sup>1</sup>  
 Polymer chain reaction

Uses :-

1. They are arrange the  
 No of DNA.
2. They are arrange and  
 sequence of the DNA.
3. They are copy to the  
 DNA

4. PCR also use the  
copy of DNA and printing  
of DNA.
5. PCR also called DNA  
fingerprinting.

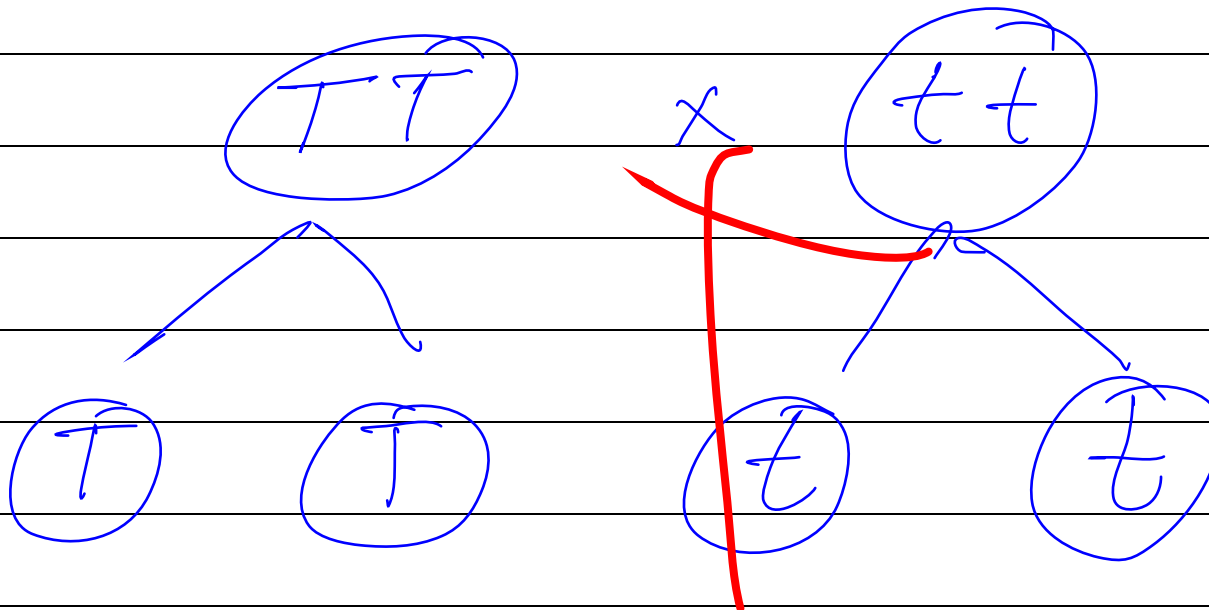
Ans = 5

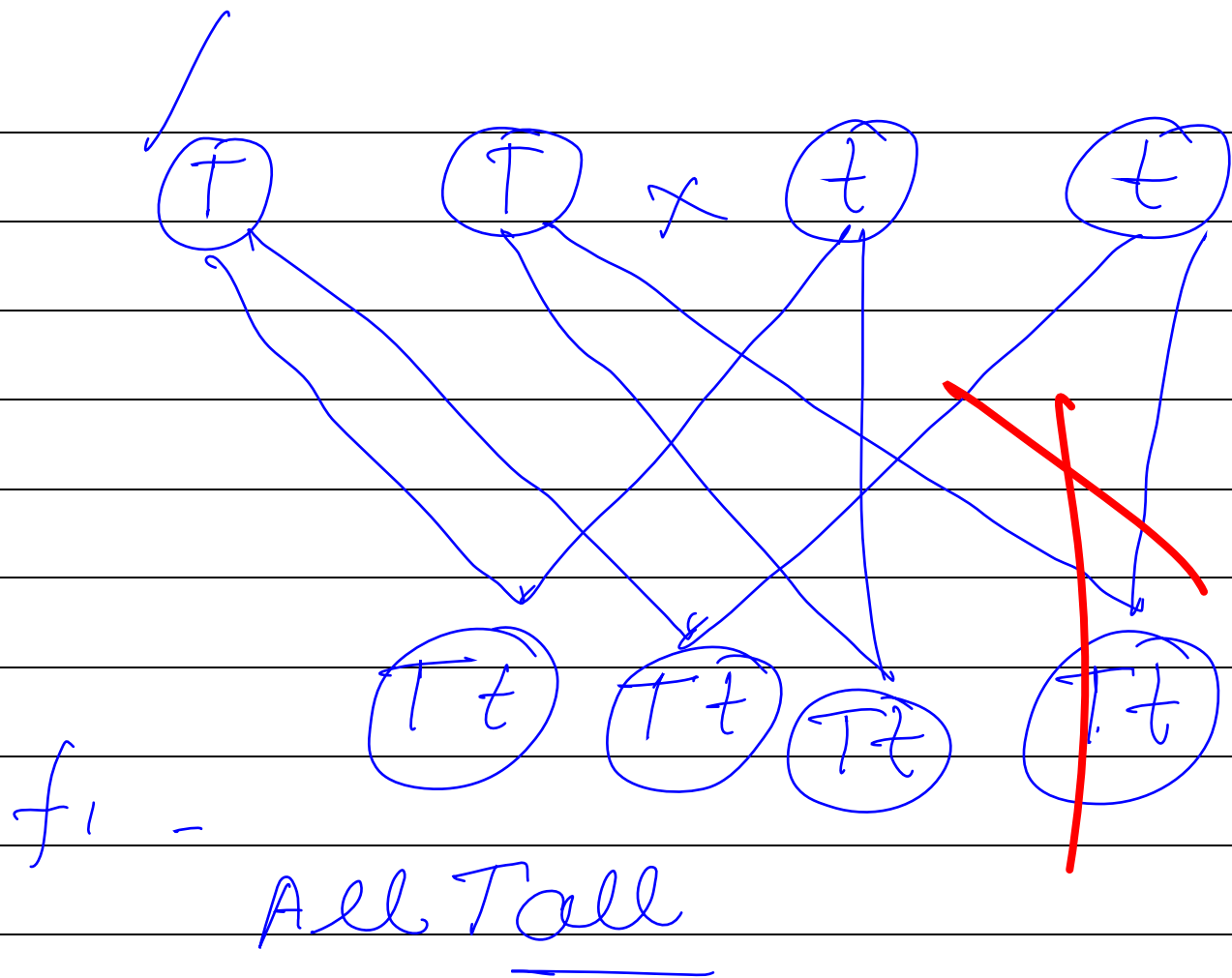
Co-Dominance -

# Co-Dominance

Co-dominance are parts is  
 Test Cross

Test cross —

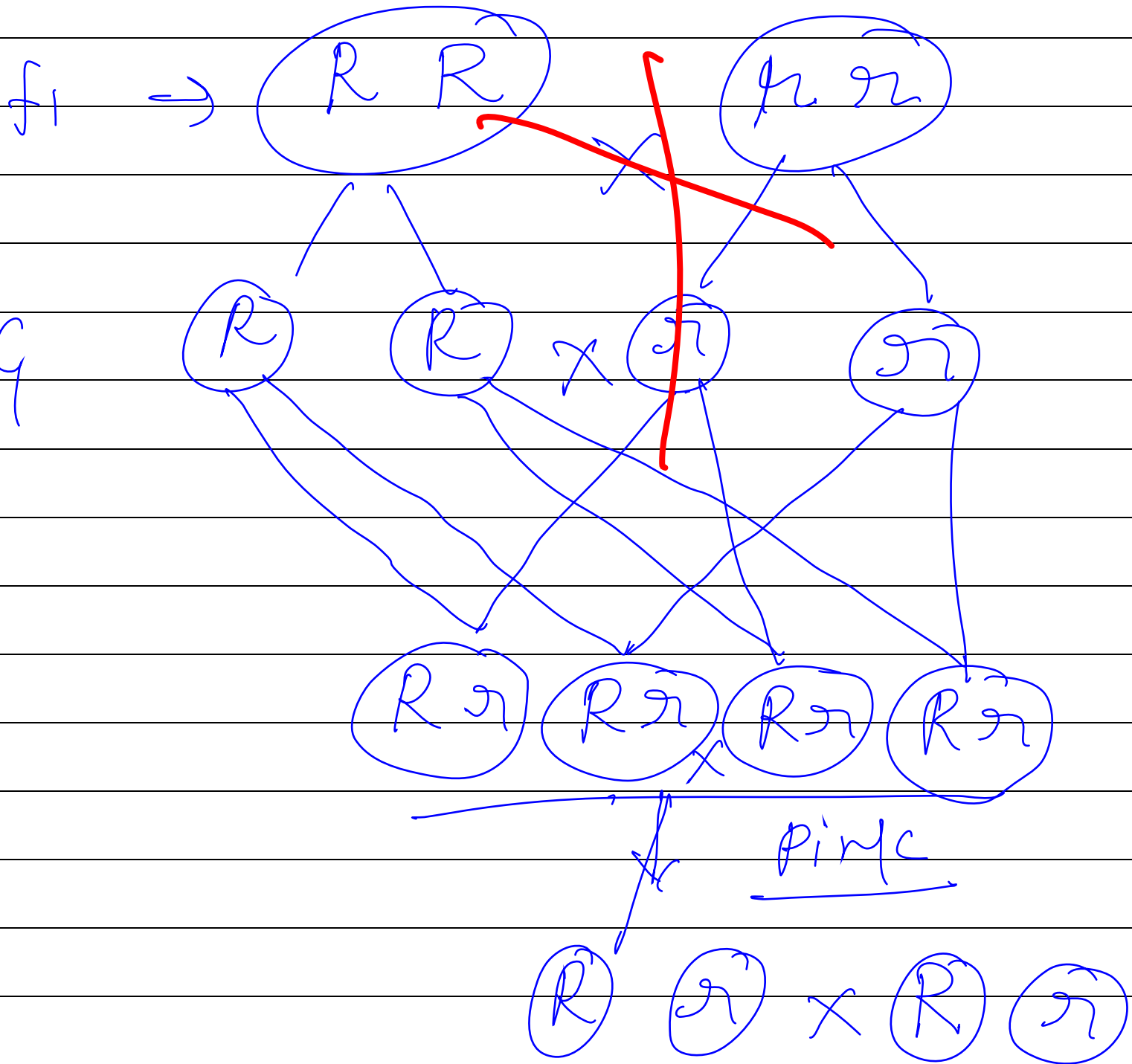


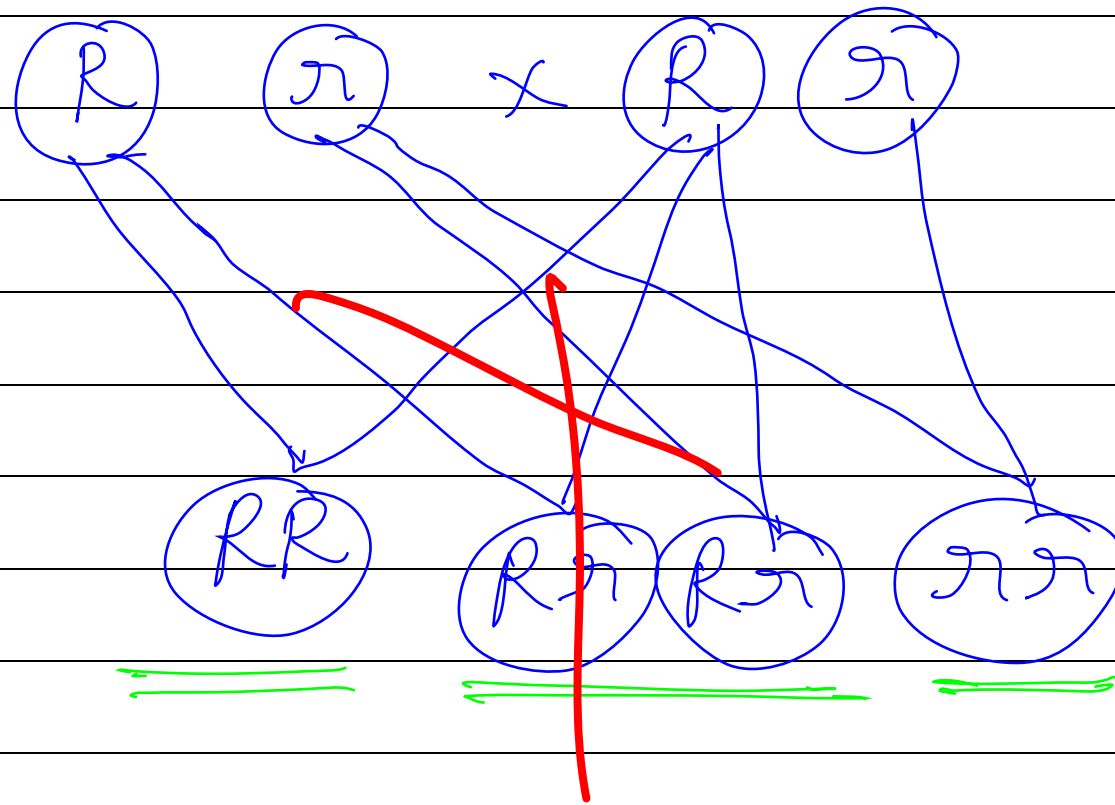


Back cross —

Red and white flower cross.







Phenotype Ratio =

~~1: 2: 1~~

Red : white : pink.

## Section - B

### Criminal Syndrome :-

⇒ Criminal syndrome are the mentally retarded. They body is large and heavy but mind are small. Their I. Q level is less than according to Normal men and female.

eg of Criminal syndrome are  
Super Male and  
Super Female.

Super Male -

(44 + xyy)

Super male are present  
 in one extra chromosome  
 They are found in extra  
 X chromosome.

X chromosome are present in female.

Super Male are characters generated in female. Chest hair and some characters are generated in female.

• They are mentally retarded.

• Super Male are found in extra power.

•

# Super Female

Super female

(44 + XXXX)

Tetrasome — ~~to~~ XXXX

Pentose — XXXXX

Super female ~~are~~ found in  
extra X chromosome

So ~~it~~ are called Super  
female

Reproduction are Normal

They are aggressive then  
Normal female.

~~Super female power are high.~~

Super female are found in  
high power according to  
Normal female.

They are Mentally get arrested  
So it is called Criminal  
Syndrome.

Ans = 8

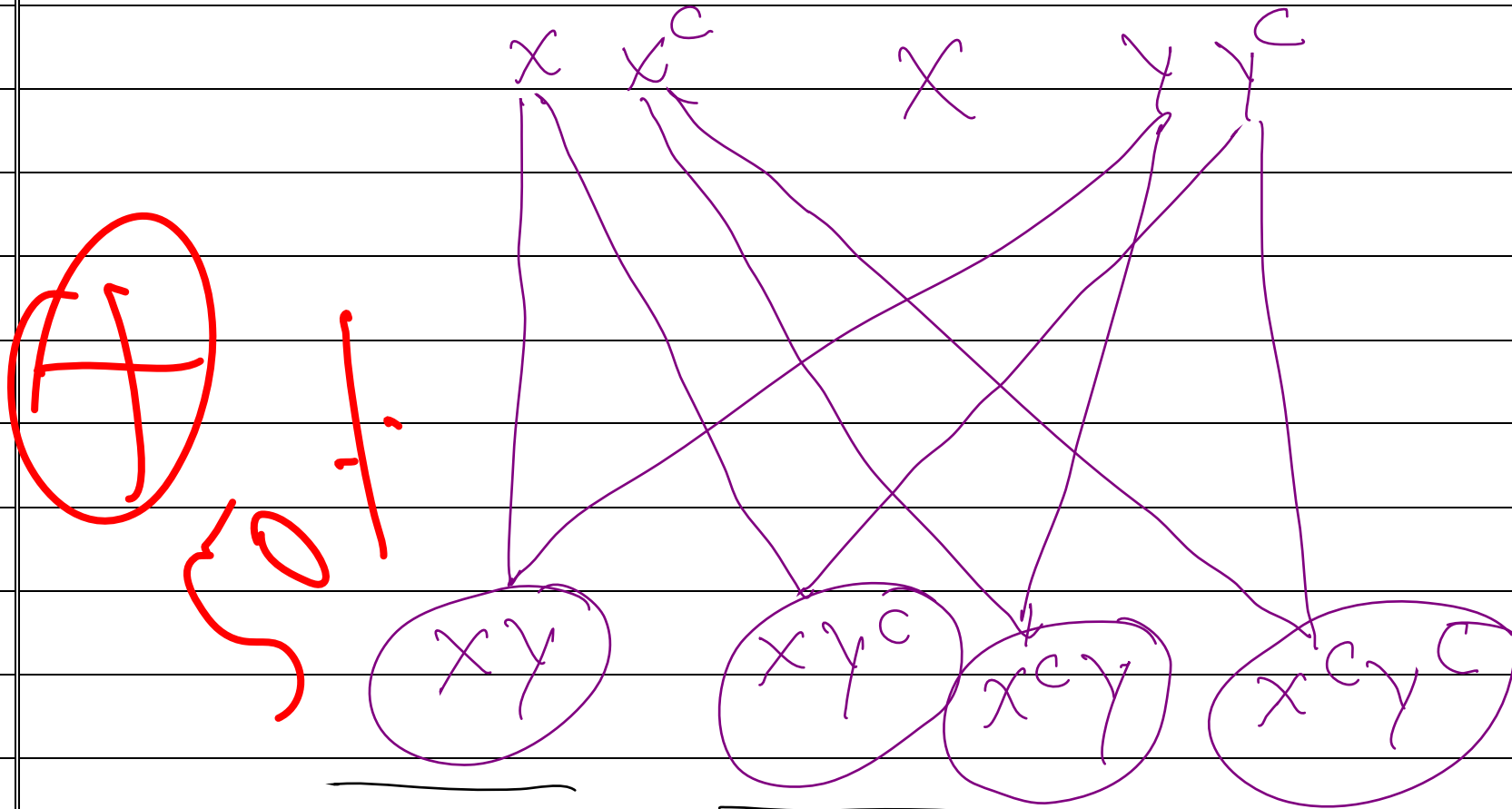
~~X~~X<sup>c</sup>      Y Y<sup>c</sup>

X - Female

Y - Male

$\text{X X}^c$       X       $\text{Y Y}^c$





$c$  is a symbol of Haemophilic

~~75%~~  
of

percent of the chance  
Haemophilic son.

# Section - C

Ans = 11

⇒ Genetic Disorders :-

Summary -

Genetic disorder

1. Down Syndrome ✓
2. Edward " ✓
3. Patau " ✓

4. Inborn of Metabolism Syndrome
5. PKU ✓
6. Cat-cow ✓
7. Lysn-sach syndrome.

Chromosomal  
Single gene  
Genetic

## Genetic disorder

Genetic disorder also define  
as they are transfer  
to one gene to another  
gene.

They gene and disorder  
are transfer to working are  
DNA.

DNA Transfer to disorder  
one gene to another  
gene.

They are many syndrome.

## Down Syndrome :-

~~(44 + XX Y)~~

They are found in extra  
chromosome.

- They are mentally retarded
- They are infertile.
- Short life span.
- Reproduction are Normal.

## Edward Syndrome ÷

13 - trisomy syndrome.

They are mentally retarded.

- Infertile.
- Short life span.
- Neck are short face  
is fundamentally.

## Patau Syndrome :-

18 trisomy syndrome.

- Infertile

- They are mentally retarded
- Short life span
- Upper lip are fertile.

Inborn of Metabolism

Syndrome :-

It is a rare of syndrome.

of Inborn of metabolism  
 Syndrome. These syndrome  
 are not catch the food  
 and energy. Energy are  
 store by the enzyme.  
 This can be Not uses  
 of energy.

PKU †

disorder  
 as (PKU)

Phenylketourine  
 also know  
 disorder.



Phenylketonuria are decrease  
and Increase are the  
substance value.

It is called phenylketonuria  
disorder.

~~Cat - can disorder~~ <sup>Symptom</sup>  $\rightarrow$

22 - trisomy disorders.

• It is mentally retarded.

• Short life span.

· Infertile ·

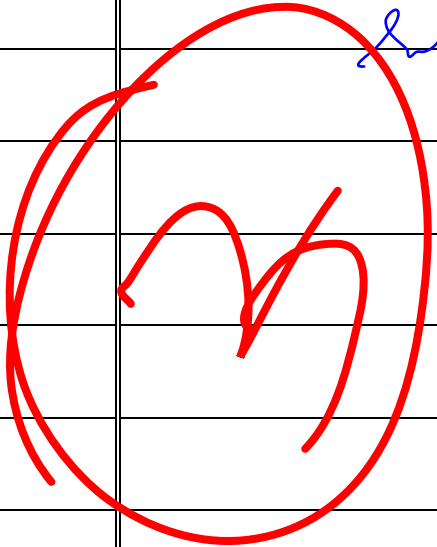
· X chromosome are found  
in extra

## Lyse - sach Disorder ÷

Lyse - sach disorder is a  
rare inherited disorders

And It is a rare  
The people do

Not have any enough  
 space so it is  
 Lysc - sach disorder.



Ans = 9

Genetic engineering

Contents :-

# Genetic engineering

## Application of genetic engineering

1. Agriculture

2. Medicine

1. Hormone

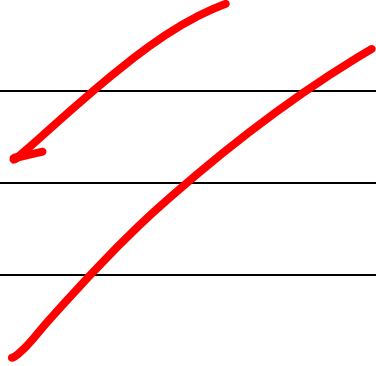
2. ~~Medicine~~ vaccine

3. Lycopersis

4. → Somatics

## Genetic engineering ÷

The Techniques of gene of  
They are develop of  
life and futer planning.  
That it called Genetic  
engineering.



# Application of Genetic

## Engineering -

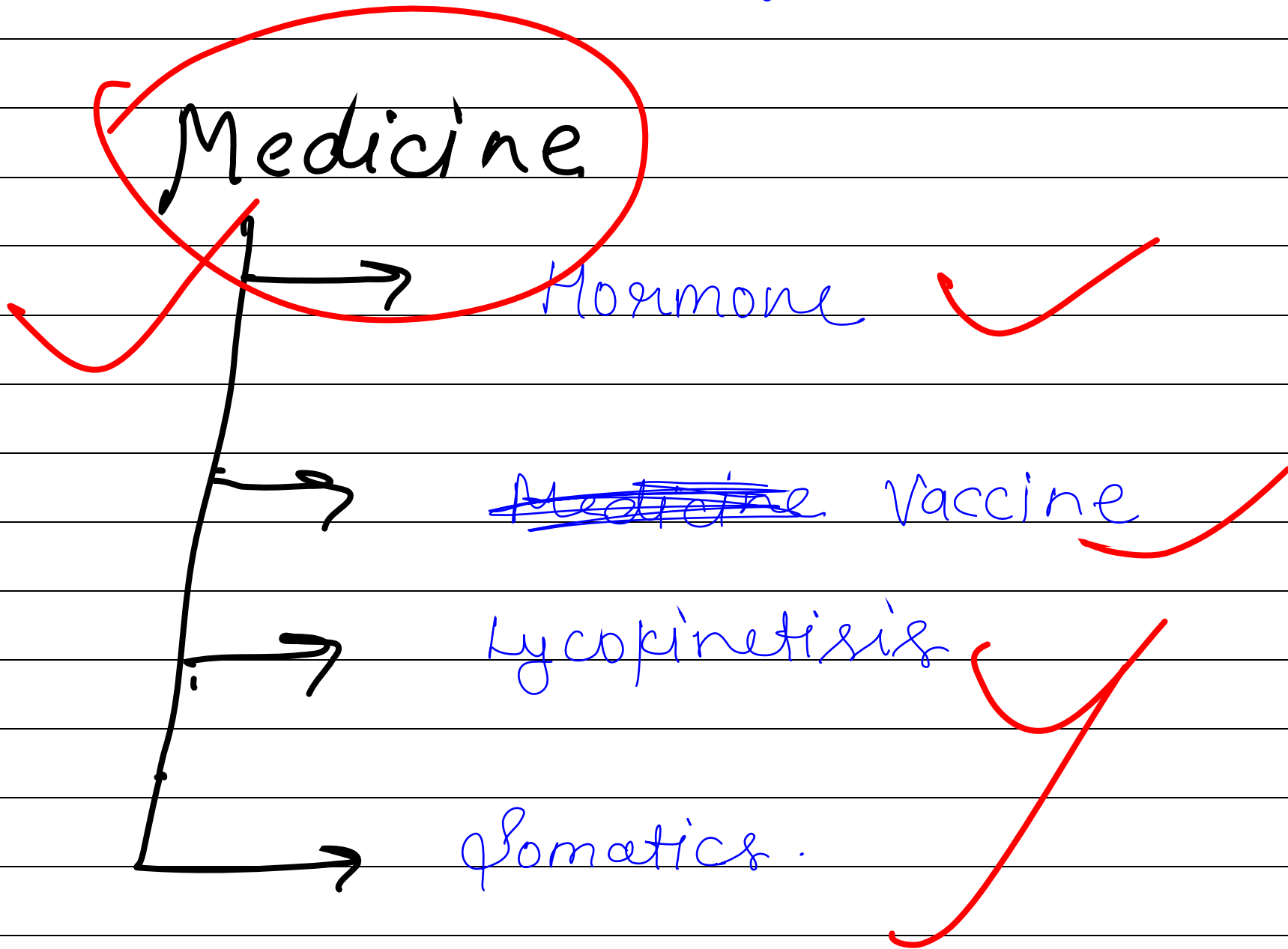
### ⇒ Agriculture -

We are know the gene  
are present in plant  
and animals

So We are there of  
Agriculture

we are provides the plant  
 and development of plant  
 highest value we are  
 provide the gene and the  
 development and the  
 further planning of  
 the agriculture of them  
 so the if we are the  
 highest and  
 strong gene are provides  
 and the weak and  
 weak plant are  
 decrease so future  
 planning is the best

there to Agriculture.





# Hormone $\Rightarrow$

Hormone they are generate  
for medicine so over  
body are

Hormone are changing over  
body. medicine required  
level are produce  
the body. So hormone  
are changing in  
over body.

Hormone are Insuline

So Insuline are provide  
 in the cow insuline  
 Animal cow are present  
 in Insuline.

Vaccine —

the vaccine are  
 p















