

INTERNATIONAL INDIAN SCHOOL BURAI DAH CLASS 12  
BIOLOGY  
WORKSHEET 4 Ch 4

Question 1.

Name the pattern of inheritance where F<sub>1</sub> phenotype

(i) resembles only one of the two parents.

(ii) does not resemble either of the two parents and is in between the two.

(All India 2019)

Or

Name the respective pattern of inheritance, where F<sub>1</sub> phenotype

(i) does not resemble either of the two parents and is in between the two.

(ii) resembles only one of the two parents. (All India 2012)

Question 2.

British geneticist RC Punnett developed a graphical representation of a genetic cross called 'Punnett Square'. Mention the possible result this representation predicts of the genetic cross carried. (Delhi 2019)

Question 3.

Name the type of cross that would help to find the genotype of a pea plant bearing violet flowers. (All India 2017)

Question 4.

State a difference between a gene and an allele. (All India 2016)

Question 5.

Give an example of polygenic trait in humans. (Delhi 2016C)

Or

On what basis is the skin colour in humans considered polygenic? (Delhi 2016)

Question 6.

A geneticist interested in studying variations and patterns of inheritance in living beings prefers to choose organisms for experiments with shorter life cycle. Provide a reason. (Delhi 2015)

Question 7.

Mention any two contrasting traits with respect to seeds in pea plant that were studied by Mendel. (All India 2014)

Question 8.

What are 'true-breeding lines' that are used to study inheritance pattern of traits in plants. (Delhi 2014)

Question 9.

How many kinds of phenotype would you expect in F<sub>2</sub>-generation in a monohybrid cross exhibiting codominance? (All India 2014)

Question 10.

Name the stage of cell division where segregation of an independent pair of chromosomes occurs. (All India 2014)

Or

Name the event during cell division cycle that results in the gain and loss of chromosomes. (Delhi 2011)

Question 11.

A garden pea plant (A) produced inflated yellow pod and another plant (B) of the same species produced constricted green pods. Identify the dominant traits. (Delhi 2012)

Question 12.

A garden pea plant produced axial white flowers another of the same species produced terminal violet flowers. Identify the dominant traits. (All India 2012)

Question 13.

In a dihybrid cross, when would the proportion of parental gene combinations be much higher than non-parental types, as experimentally shown by Morgan and his group? (All India 2012)

Question 14.

Write possible genotypes Mendel got when he crossed F<sub>1</sub> tall plant with a dwarf pea plant. (Foreign 2012)

Question 15.

Garden pea plant produced round, green seed. Another of same species produced wrinkled yellow seeds. Identify dominant traits. (Foreign 2012)

Question 16.

Mention two contrasting flower related traits studied by Mendel in pea plant experiments. (All India 2011C)

Question 17.

Name the contrasting pod related traits studied by Mendel in his pea plant experiment. (All India 2011C)

Question 18.

Mention the type of allele that expresses itself only in homozygous state in an organism. (Foreign 2011)

Question 19.

Pea flowers produce assured seed sets. Give a reason. (All India 2010)

Question 20.

Explain polygenic inheritance with the help of an example. (All India 2019)

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