Module 8 study guide

1.

A. If an organism has certain characteristic that is always passed on to it's offspring we say this organism bred true with respect to that characteristic
B. One of a pair of genes that occupies the same position on homologous chromosomes
C. The two letter set that represents the alleles an organism possess for a certain trait
D. The observable expression of an organism's genes
E. A genotype in which both alleles are identical
F. A genotype in which the alleles are different
G. An allele that will determine the phenotype if just one is present
H. An allele that will not determine the phenotype unless the genotype is homozygous
I. A. The traits of an organism are determined by its genes
   B. each organism has two alleles that make up the genotype for a given trait
   C. In sexual reproduction each parent contributes ONLY ONE of its alleles to its offspring
   D. in each genotype there is a dominant allele. If it exists it exists in an organism the phenotype is determined by that allele
J. A diagram that follows a phenotype through several generations
K. A cross between two individuals concentrating on only one definable trait
L. A cross between two individuals concentrating on two definable traits
M. Chromosomes that do not determine the sex of an individual
N. Chromosomes that determine the sex of an individual
O. A protein that, when introduced into the blood, triggers the production of antibody
P. Inheritance of a genetic trait not on a sex chromosome
Q. A person who is heterozygous in a recessive genetic disorder
R. Inheritance of a genetic trait located on the sex chromosomes
S. A radical chemical change in one or more alleles
T. A situation in which a chromosome loses or gains genes during meiosis
U. A situation in which abnormal cellular events in meiosis lead to either none of a particular in the gamete or more than one chromosome in the gamete

2.
Yellow
Yellow
Green

3.
meiosis

4.
AA 50%
Aa 50%

5.
TT 50%
Tt 505

6.
Ww
ww

7.
Wings are recessive

1. Ww
2. Ww
3. Ww
4. Ww

8.
Smooth and yellow 100% ?

9.
Smooth yellow 62.5%
Smooth green 18.75%
Wrinkled yellow 18.75%
Wrinkled green 6.25%

10.
50%

11.
X^R Y

13.
Because the disease is recessive and they don't have two recessive alleles for it

14.
They do not. Thay affect men more because, if the disorder is recessive, a man only needs to have one allele for it, rather than two

15.
Because of different environmental factors

16.
A 50%
B 50%

17.
Bo RR
BB RR
BB Rr
BB rr
Bo rr
Bo Rr

18.
polygenetic