Complex Inheritance and Human Heredity Revision Paper

تم تحميل هذا الملف من موقع المناهج الإماراتية	
موقع المناهج ⇦ المناهج الإماراتية ⇦ الصف الحادي عشر العام ⇦ علوم ⇦ الفصل الثالث ⇦ ملفات متنوعة ⇦ الملف	
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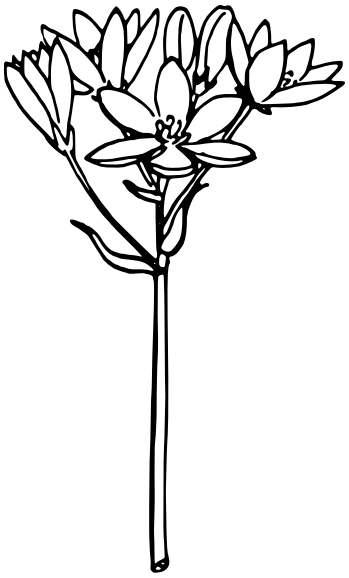
ملفات ا كتب للمعلم ا كتب للطالب ا اختبارات الكترونية ا اختبارات ا حلول ا عروض بوربوينت ا أوراق عمل منهج انجليزي ا ملخصات وتقارير ا مذكرات وبنوك ا الامتحان النهائي ا للمدرس	المزيد من مادة علوم:
إعداد: Basim Alrahman-Abd	

التواصل الاجتماعي بحسب الصف الحادي عشر العام					
صفحة المناهج الإماراتية على فيسبوك					
المواد على تلغرام	التربية الاسلامية	اللغة العربية	اللغة الانجليزية	الرياضيات	

المزيد من الملفات بحسب الصف الحادي عشر العام والمادة علوم في الفصل الثالث	
1	ملخص التنفس الخلوي
2	ملخص عملية البناء الضوئي
3	Energy Transformation and Metabolism
4	منهج انسباير درس التنفس الخلوي
5	الدرس الثاني البناء الضوئي الجزء الثاني منهج انسباير



Biology

COMPLEX INHERITANCE AND HUMAN HEREDITY

Revision Paper

by Abd-Alrahman Basim

SECTION 1:
BASIC PATTERNS FOR HUMAN HEREDITY

SECTION 2:
PATTERNS FOR COMPLEX INHERITANCE

SECTION 3:
CHROMOSOMES AND HUMAN HEREDITY

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موقع المناهج الإماراتية

BASIC PATTERNS FOR HUMAN HEREDITY

1. Which term describes a person who is heterozygous for a recessive disorder?

- carrier
- pedigree
- recessive
- dominant

2. Which condition is inherited as a dominant allele?

- albinism
- cystic fibrosis
- Tay-Sachs disease
- Huntington's disease

3. How is the inheritance pattern between parents and offspring represented diagrammatically?

- carrier
- pedigree
- recessive
- dominant

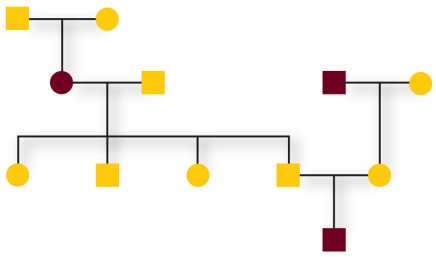

fig 1
Q5 & Q6

4. Which is not a characteristic of a person with cystic fibrosis?

- chloride channel defect
- digestive problems
- lack of skin pigment
- recurrent lung infections

5. Which disorder could not follow the inheritance pattern shown?

- cystic fibrosis
- albinism
- Tay-Sachs disease
- Huntington's disease

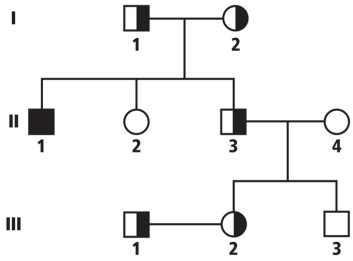

fig 2
Q7 & Q8

6. How many affected males and females are in the pedigree?

- 1 male, 2 females
- 1 male, 1 female
- 2 males, 1 female
- 2 males, 2 females

7. Which person could develop symptoms of the disease that is tracked in the pedigree?

- I1
- II1
- II2
- III2

8. According to the pedigree, who is a carrier and cannot have children with the disease?

- I1
- II1
- II3
- III1

BASIC PATTERNS FOR HUMAN HEREDITY

9. Which Scientists was the first to use Mendel's work after more than 30 years?

- Dr. Garrod
- Frederick Griffith
- Oswald Avery
- Alfred Hershey

10. Which disease is inherited as a recessive allele?

- Achondroplasia
- Marfan syndrome
- Tay-Sachs disease
- Huntington's disease

11. Which is an effect of Achondroplasia disorder?

- Decline of mental and neurological functions
- Mental disabilities
- Short limbs
- Enlarged liver

12. Which is not an effect of Galactosemia disorder?

- Mental disabilities
- Kidney failure
- Digestive and respiratory failure
- Enlarged liver

13. Which disorder could not follow the recessive inheritance pattern?

- cystic fibrosis
- polydactyly
- albinism
- Tay-Sachs disease

14. Which is not a factor that affects the study of human genetics?

- Circumstances
- Environment
- Ethics
- Time

15. What is the genotype for a person that expresses a recessive trait?

- Carrier
- Homozygous dominant
- Heterozygous
- Homozygous recessive

16. Which disease cause the absence of the skin pigment melanin?

- Albinism
- Hemophilia
- Huntington's disease
- Galactosemia

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PATTERNS FOR COMPLEX INHERITANCE

1. _____ is an inheritance pattern in which the heterozygous genotype results in an intermediate phenotype between the dominant and recessive phenotype.

- codominance
- multiple alleles
- incomplete dominance
- epistasis

2. A characteristic that has more than one pair of possible traits is said to be a(n) _____.

- sex chromosome
- autosome
- sex-linked trait
- polygenic trait

3. Genes found on the sex chromosomes are associated with _____.

- sex chromosome
- autosome
- sex-linked trait
- polygenic trait

4. What determines gender in humans?

- the X and Y chromosomes
- chromosome 21
- codominance
- epistasis

5. Which two terms best describe the inheritance of human blood types?

- incomplete dominance and codominance
- codominance and multiple alleles
- incomplete dominance and multiple alleles
- codominance and epistasis

6. In radishes, color is controlled by incomplete dominance. What phenotypic ratios would you expect from crossing two heterozygous plants?

- 2: 2 red: white
- 1: 1: 1 red: purple: white
- 1: 2: 1 red: purple: white
- 3: 1 red: white

Red

Purple

White

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PATTERNS FOR COMPLEX INHERITANCE

7. Barr bodies in mammal females is an example of _____.

- Dosage Compensation
- Sex-linked traits
- Sex chromosomes
- Autosomes

8. Which chromosomes determine an individual's gender?

- Chromosome pair 22
- Chromosome pair 23
- Chromosome pair 21
- Chromosome pair 20

9. Which pattern of complex inheritance in which one allele hides the effect of the other?

- Multiple alleles
- Polygenic trait
- Incomplete dominance
- Epistasis

10. Which term is defined for intermediate phenotype between 2 homozygous phenotypes?

- Codominance
- Incomplete dominance
- Epistasis
- Multiple alleles

11. Which is an example of both codominance and multiple alleles?

- Sickle-Cell disease
- Eye color
- Labrador's coat color
- Blood group

12. _____ is the percentage of twins who both express a given trait?

- Genetic factor
- Concordance rate
- Twins similarity rate
- Twins ratio

13. Which is an example of X-inactivation?

- Siamese cat
- Red-green color blindness
- Calico cat coat color
- Coat color of rabbits

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CHROMOSOMES AND HUMAN HEREDITY

1. _____ are the protective ends of the chromosome.
   - karyotypes
   - telomeres
   - nondisjunction
   - centromeres

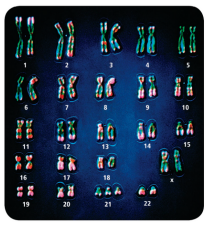
2. _____ an error that occurs during cell division.
   - karyotype
   - telomere
   - nondisjunction
   - centromere

3. _____ a micrograph of stained chromosomes.
   - karyotype
   - telomere
   - nondisjunction
   - centromere

4. What could explain a human karyotype showing 47 chromosomes?
   - monosomy
   - codominance
   - trisomy
   - dominant traits

5. Why does nondisjunction occur?
   - Cytokinesis does not occur properly.
   - The nucleoli do not disappear.
   - The sister chromatids do not separate.
   - The chromosomes do not condense properly.

6. What disorder can be identified in the karyotype?
   - Turner's syndrome
   - Klinefelter's syndrome
   - Down syndrome
   - The karyotype shows no disorder.



7. Which statement concerning telomeres is not true?
   - They are found on the ends of chromosomes.
   - They consist of DNA and sugars.
   - They protect chromosomes.
   - They are involved with aging.

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CHROMOSOMES AND HUMAN HEREDITY

8. Which is not a type of fetal testing?

- Amniocentesis
- Fetal Blood Sampling
- Chronic Villus Sampling
- Placental Test

9. Having a set of three chromosomes of one kind is called _____.

- Monosomy
- Bionomy
- Trisomy
- Autosomal

10. Having only one of a particular type of chromosome is called _____.

- karyotype
- telomere
- nondisjunction
- Monosomy

11. Another name for Dawn syndrome is _____.

- monosomy 21
- trisomy 21
- trisomy 17
- monosomy 17

12. What is the genotype of a person with Turner's syndrome?

- XXX
- XXY
- XO
- OY

13. What is the genotype of a person with Klinefelter's syndrome?

- XXX
- XXY
- XO
- OY

14. Which type of fetal tests have the risk of fetal death?

- Amniocentesis
- Fetal Blood Sampling
- Chronic Villus Sampling
- Placental Test

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