名词解释

(先将英文名词翻译成中文，再进行解释)

1. Chromatin

2. Centromere

3. Telomeres

4. Genome

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(先将英文名词翻译成中文，再进行解释)

5. Noncoding DNA

6. Gene family

7. Satellite DNA

8. Genetic polymorphism

1. The basic subunit of chromatin is （　）.

A DNA

B nucleosome

C histone proteins

D gene

2. Which of the following is common to the chromosomes of *E. coli* and eukaryotes?

A DNA is circular.

B DNA is packaged into nucleosomes.

C DNA is in the nucleus.

D DNA is negatively supercoiled.

3. Which of the following histone modifications usually promote gene expression?

A　acetylation

B　phosphorylation

C　methylation

D　Mono-ubiquitination

4. A complex consisting of 166 bp DNA, histone octamer and histone H1 is called (　　　)

A　nucleosome core

B　chromatosome

C　nucleosome

D　The 30-nm fiber

5. What is the region where chromosomal transcription occurs during the interphase?

A　telomere

B　centromere

C　heterochromatin

D　euchromatin

6. Which of the following statements about CpG islands is wrong?

A　Unmethylated CpG islands is resistant to DNase I

B　The methylation of CpG is associated with transcriptionally inactive regions of chromatin.

C　Methylated CpG mutates fairly rapidly to TpG.

D　Unmethylated CpG islands surround the promoter regions of active genes

7. Which of the following is highly repetitive DNA?

(A) *Alu* element

(B) histone gene clusters

(C) satellite DNA

(D) LINE

8. The relationship between the C_0t value and the DNA sequence is that ( ).

(A) The larger the C_0t, the higher the DNA repeat sequence.

(B) Satellite DNA has the lowest C_0t value.

(C) Satellite DNA has the largest C_0t value.

(D) C_0t value is unrelated to the DNA sequence.

问答题

1. 什么是C值悖论？具体表现在哪些方面？

问答题

2. 比较原核生物与真核生物基因组的结构特点。

主观题　　第13题　　8分

问答题

3. 比较常染色质和异染色质的异同。

主观题　　第14题　　9分

问答题

4. 遗传多态性有哪些类型？举例说明其应用。