

Unit 7 - Week 5 :

Course outline

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● Lecture 21 : Synthetic Biology (Contd.)

● Lecture 22 : Nucleic Acid

● Lecture 23 : Nucleic Acid (Contd.)

● Lecture 24 : DNA sequencing method

● Lecture 25 : DNA sequencing method (Contd.)

● Lecture 26 : DNA sequencing method (Contd.)

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Assignment 5

 The due date for submitting this assignment has passed.
As per our records you have not submitted this assignment.

Due on 2019-09-04, 23:59 IST.

 1) A nucleoside is composed of 1 point

- a base and a sugar
- a base, a sugar and a phosphate
- a base and a phosphate
- None of these

- a.
 b.
 c.
 d.

No, the answer is incorrect.

Score: 0

Accepted Answers:

a.

 2) Two strands in double stranded DNA is connected by 1 point

- Covalent bond
- Hydrogen bond
- Ionic bond
- Phosphodiester bond

- a.
 b.
 c.
 d.

No, the answer is incorrect.

Score: 0

Accepted Answers:

b.

 3) The length of one complete turn of B- DNA is 1 point

- 3.4 Å
- 34 Å
- 20 Å
- 3.04 Å

- a.
 b.
 c.
 d.

No, the answer is incorrect.

Score: 0

Accepted Answers:

b.

 4) Which one of the following has a Left Handed DNA ? 1 point

- A-DNA
- B-DNA
- Z-DNA
- C-DNA

- a.
 b.
 c.
 d.

No, the answer is incorrect.

Score: 0

Accepted Answers:

c.

 5) Which one of the following statements about ds-DNA when it is heated above its melting temperature is **TRUE**? 1 point

- There is decrease in absorption of UV light of wave-length of 260 nm
- There is increase in absorption of UV light of wave-length of 260 nm
- There is no change in absorption of wave-length of 260 nm
- Unbound form DNA has lower extent of absorption of UV light of wave-length of 260 nm

- a.
 b.
 c.
 d.

No, the answer is incorrect.

Score: 0

Accepted Answers:

b.

 6) What is the main enzyme component of Sanger sequencing? 1 point

- Helicase
- DNA-Polymerase
- Nuclease
- Gyrase

- a.
 b.
 c.
 d.

No, the answer is incorrect.

Score: 0

Accepted Answers:

b.

 7) Which one of the following statements is **TRUE**? 1 point

- The melting temperature of a ds- DNA with 25% A is expected to be much higher that with G content of 25%.
- The melting temperature of a ds- DNA with 20% A is expected to be higher that with G content of 25%.
- The melting temperature of a ds- DNA with 25% A is expected to be higher that with G content of 25%.

- a.
 b.
 c.
 d.

No, the answer is incorrect.

Score: 0

Accepted Answers:

b.

 8) What should be the complementary strand of 3'....ATGGCTTGA....5'? 1 point

- 3'....TACCGAACT....5'
- 5'....TACCGAACT....3'
- 3'....TAGGCAAGT....5'
- 5'....TAGGCAAGT....3'

- a.
 b.
 c.
 d.

No, the answer is incorrect.

Score: 0

Accepted Answers:

b.

 9) Guanine specific cleavage in Maxam-Gilbert method is done by using 1 point

- Formic acid
- Hydrazine, Piperidine
- Dimethyl sulphate, Piperidine
- Hydrazine, NaOH

- a.
 b.
 c.
 d.

No, the answer is incorrect.

Score: 0

Accepted Answers:

c.

 10) The principle of Sanger method relies on 1 point

- Use of chemicals for base specific cleavage
- Use of dNTPs for chain termination
- Use of ddNTPs for chain termination
- Use of for ³²P in chain termination

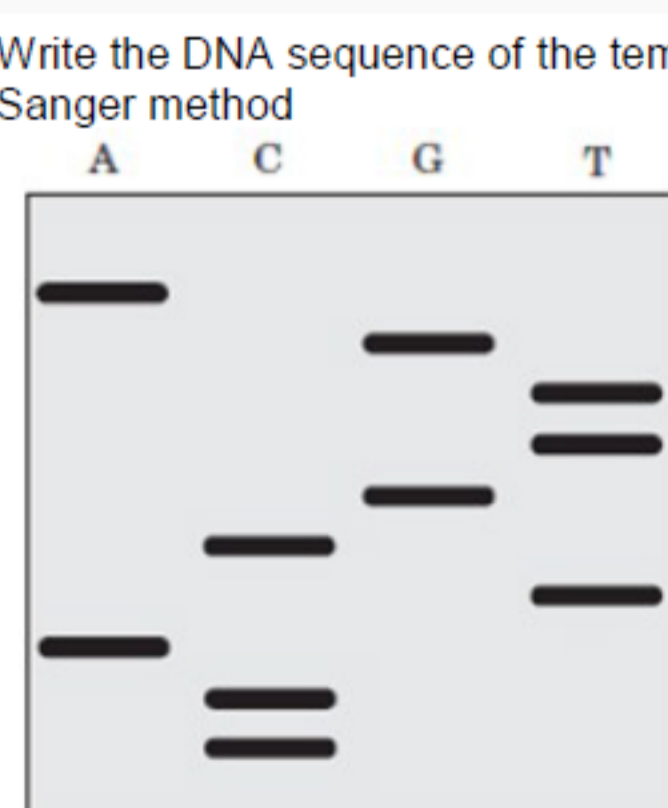
- a.
 b.
 c.
 d.

No, the answer is incorrect.

Score: 0

Accepted Answers:

c.

 11) Write the DNA sequence of the template DNA strand from the following diagram obtained by Sanger method 1 point


- 3'-GGTAGCAACT-5'
- 3'-CCATCGTTGA-5'
- 5'-CCATCGTTGA-3'
- 5'-GGTAGCAACT-3'

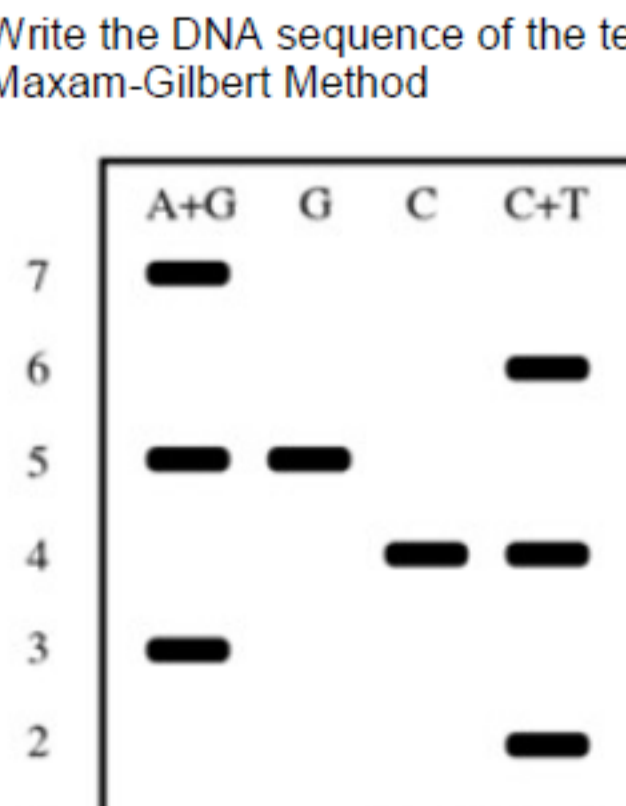
- a.
 b.
 c.
 d.

No, the answer is incorrect.

Score: 0

Accepted Answers:

a.

 12) Write the DNA sequence of the template DNA strand from the following diagram obtained by Maxam-Gilbert Method 1 point


- 5'-GATGCAT-3'
- 5'-CTACGTA-3'
- 3'-GATGCAT-5'
- 3'-CTACGTA-5'

- a.
 b.
 c.
 d.

No, the answer is incorrect.

Score: 0

Accepted Answers:

b.