


Course No: DNTS2310  
Course Title: Biochemistry 1  
Date: 18/11/2014  
No. of Questions: (6)  
Time: 1 hours  
Using Calculator (No)

University of Palestine  
  
2<sup>nd</sup> Midterm Exam  
Semester 2013/2014  
Total Grade:

Instructor Name: \_\_\_\_\_  
Student No.: \_\_\_\_\_  
Student Name: \_\_\_\_\_  
College Name: \_\_\_\_\_  
Dep. / Specialist: \_\_\_\_\_  
Using Dictionary (No)

Question One:

- 1) Explain why **monosaccharides** demonstrate D and L stereoisomerism.

Question Two:


- 2) Draw the **structure** of the following sugars:

Maltose

Glucose

Fructose

Course No: DNTS2310  
Course Title: Biochemistry 1  
Date: 18/11/2014  
No. of Questions: (6)  
Time: 1 hours  
Using Calculator (No)

University of Palestine  
  
2<sup>nd</sup> Midterm Exam  
Semester 2013/2014  
Total Grade:

Instructor Name: \_\_\_\_\_  
Student No.: \_\_\_\_\_  
Student Name: \_\_\_\_\_  
College Name: \_\_\_\_\_  
Dep. / Specialist: \_\_\_\_\_  
Using Dictionary (No)

---

---

Question Three:

---

---

3) Explain the difference in the structure between *starch* and *cellulose*.

---

---


Question Four:

---

---

4) Which enzymes catalyse the three spontaneous reactions in glycolysis?

Course No: DNTS2310  
Course Title: Biochemistry 1  
Date: 18/11/2014  
No. of Questions: (6)  
Time: 1 hours  
Using Calculator (No)

University of Palestine  
  
2<sup>nd</sup> Midterm Exam  
Semester 2013/2014  
Total Grade:

Instructor Name: \_\_\_\_\_  
Student No.: \_\_\_\_\_  
Student Name: \_\_\_\_\_  
College Name: \_\_\_\_\_  
Dep. / Specialist: \_\_\_\_\_  
Using Dictionary (No)

---

---

Question Five:

---

---

What role do the *irreversible* reactions play in **glycolysis**

---

---

Question Six:


---

---

6) Draw the *structure* of the following glycolytic intermediates:

- a. dihydroxyacetone phosphate.   b- pyrovate.   c- fructose-1,6-bisphosphate.   d- phosphoenolpyrovate.
- e- 3-phosphoglycerate.

Course No: DNTS2310  
Course Title: Biochemistry 1  
Date: 18/11/2014  
No. of Questions: (6)  
Time: 1 hours  
Using Calculator (No)

University of Palestine  
  
Midterm Exam  
2<sup>nd</sup> Semester 2013/2014  
Total Grade:

Instructor Name: \_\_\_\_\_  
Student No.: \_\_\_\_\_  
Student Name: \_\_\_\_\_  
College Name: \_\_\_\_\_  
Dep. / Specialist: \_\_\_\_\_  
Using Dictionary (No)


---

7) If a molecule of *sucrose* is to undergo *glycolysis*:

a. What modifications must be performed before energy could be yielded?

b. find the number of ATPs produced per a *sucrose* molecule at **substrate level** phosphorylation and the number of ATPs generated at the **oxidative** phosphorylation level.

Course No: DNTS2310  
Course Title: Biochemistry 1  
Date: 18/11/2014  
No. of Questions: (6)  
Time: 1 hours  
Using Calculator (No)

University of Palestine  
  
2<sup>nd</sup> Midterm Exam  
Semester 2013/2014  
Total Grade:

Instructor Name: \_\_\_\_\_  
Student No.: \_\_\_\_\_  
Student Name: \_\_\_\_\_  
College Name: \_\_\_\_\_  
Dep. / Specialist: \_\_\_\_\_  
Using Dictionary (No)

---

8) state the *catalytic role* of the following glycolytic enzymes:

1- Aldolase:

2- Enolase:

3- Hexokinase:

4- Triosephosphate isomerase:

End of Questions  
Good Luck