Ministry of high education
King Abdulaziz university
Collage of Science
Biology Department

Student name:……
Computer No.:……..
Section:……...
Serial No.:……...

Section FA/Saturday 2-5

Mid Term Molecular Biology Laboratory Exam

Question One:

Complete the following table by the identification of each un known and choosing the suitable option for each:

Un Known models	Suitable answers		Options
1-Slide shows glycogen granules in the ……the liver cells……	4	8	1. non-covalent bonds 2. Denaturation 3. Type of lipid. 4.Poly saccharides 5. Pigment that transfers oxygen 6. Coagulation 7. Contains a steroid nucleus 8.Animal starch. 9. Building blocks is Nucleotide
2- Experiment shows the effect of temperature on the protein.	2	6	
3- Slide shows protein hemoglobin in the red blood cells.	1	5	
4- Experiment to detect…the …cholesterol in samples…	3	7	

Question Two:

Give a reason :

1. In detection of Monosaccharides experiment we add 5 drops of HCl to sucrose solution:
…… to hydolyse sucrose into glucose and fructose
……

2. The secondary structure of the protein:
…….It results from Hydrogen (H)-bonding of the poly-peptide chain……..……
.……

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Section Monday 11-2

Mid Term Molecular Biology Laboratory Exam

Question One:

Complete the following table by the identification of each un known and choosing the suitable option for each:

Un Known models	Suitable answers		Options
1-Slide shows islets of Llangerhans in the…… pancreas …….	3	9	1. Building blocks of protein 2. Denaturation 3. Type protein. 4. Part of Nucleotide 5. Contain Amine group (NH_2) 6. Nutritional Polysaccharides 7. T,C, U. 8. Poly saccharides 9. Secrete insulin hormone.
2- Experiment to detect the pryimidines nitrogen base in nucleic acid	4	7	
3- Slide shows starch granules	6	8	
4- Experiment to detection …of amino acids Cyseine and Methionine	1	5	

Question Two:

Give a reason :

1. Formation of the Globular protein that dissolves in water.

There are 3 main types of chemical bonds that contributes to the formation of tertiary structure: H-bond, Ionic bond and disulfide bond (-S-S-), which result in formation of a Globular protein that dissolves in water (soluble)

2. We use yeast in Sucrose experiment:
   To Prepare invertase enzyme extract by grinding 10 gm of yeast with 5 ml distilled water and table sugar……...

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Section Monday 2-5

Mid Term Molecular Biology Laboratory Exam

Question One:

Complete the following table by the identification of each un known and choosing the suitable option for each:

Un Known models	Suitable answers	Options
1-Slide shows mucus in the ……intestine……	2 4	1. T,C, U.
2- Experiment shows the effect of temperature on the protein.	5 9	2. Poly saccharides
3- Slide shows protein hemoglobin in the red blood cells.	3 8	3. non-covalent bonds.
4- Experiment to detect the pryimidines nitrogen base in nucleic acid	1 6	4. Glycosidic bond
		5. Denaturation
		6. Part of Nucleotide
		7. Animal starch
		8. Pigment that transfers oxygen
		9. Coagulation

Question Two:

Give a reason :

1. Sometimes function of protein is lost by adding strong acid to the protein or by heating it:
Some factors affects the nature of proteins and can change structure of proteins. Factors like high temperature, exposure to some chemicals causes denaturation of proteins, function of protein is lost.

2.The secondary structure of the protein:
……It results from Hydrogen (H)-bonding of the poly-peptide chain……..……
.……

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Question One:

Complete the following table by the identification of each un known and choosing the suitable option for each:

Un Known models	Suitable answers	Options
1-Slide shows…… in the ……		1. non-covalent bonds 2. Denaturation 3. Type of lipid. 4.Poly saccharides 5. Pigment that transfers oxygen 6. Coagulation 7. Contains a steroid nucleus 8.Animal starch. 9. Building blocks is Nucleotide
2- Experiment shows the effect of ……..on the ……...		
3- Slide shows …… ……..		
4- Experiment to detect…..... ……		

Question Two:

Give a reason :

1.In detection of Monosaccharides experiment we add 5 drops of HCl to sucrose solution:

……
……

2.The secondary structure of the protein:

……
……

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Mid Term Molecular Biology Laboratory Exam

Question One:

Complete the following table by the identification of each un known and choosing the suitable option for each:

Un Known models	Suitable answers	Options
1-Slide shows ..... in the……... …….		1. Building blocks of protein 2. Denaturation 3. Type protein. 4. Part of Nucleotide 5. Contain Amine group (NH_2) 6. Nutritional Polysaccharides 7. T,C, U. 8. Poly saccharides 9. Secrete insulin hormone.
2- Experiment to detect ..... ……		
3- Slide shows ……		
4- Experiment to detection … ……..		

Question Two:

Give a reason :

1. Formation of the Globular protein that dissolves in water.

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2. We use yeast in Sucrose experiment:

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Question One:

Complete the following table by the identification of each un known and choosing the suitable option for each:

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1-Slide shows ..... in the ……..……		1. T,C, U. 2. Poly saccharides 3. non-covalent bonds. 4. Glycosidic bond 5. Denaturation 6. Part of Nucleotide 7. Animal starch 8. Pigment that transfers oxygen 9. Coagulation
2- Experiment shows the effect of .....on the		
3- Slide shows ……..……..		
4-Experiment to detect ……... ……...		

Question Two:

Give a reason :

1. Sometimes function of protein is lost by adding strong acid to the protein or by heating it:

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……

2.The secondary structure of the protein:

……
……