

**Term Test**  
**Biochemistry and Molecular Biology Department**  
**ShahJalal University of Science and Technology**  
**Course Title: Introductory Biochemistry**

1. Fill in the blanks with appropriate words.

0.5×10=5

- (a) Carbohydrates are polyhydroxy \_\_\_\_\_ or \_\_\_\_\_ substances
- (b) Insoluble carbohydrate polymers serve as \_\_\_\_\_ and \_\_\_\_\_ elements in the cell walls of bacteria and plants cells.
- (c) The \_\_\_\_\_ and \_\_\_\_\_ of D-glucose interconvert in aqueous solution by a process called \_\_\_\_\_.
- (d) Glucose and other sugars capable of reducing \_\_\_\_\_ or \_\_\_\_\_ ion are called reducing sugars.
- (e) Blood glucose concentration is commonly determined by measuring the amount of \_\_\_\_\_ produced in the reaction catalyzed by \_\_\_\_\_.
- (f) Disaccharides (such as maltose, lactose, and sucrose) consist of two \_\_\_\_\_ joined covalently by an \_\_\_\_\_.
- (g) \_\_\_\_\_ generally do not have definite molecular weights and serve as storage forms of \_\_\_\_\_ that are used as fuels.
- (h) \_\_\_\_\_ is especially abundant in the liver and it is also present in \_\_\_\_\_.
- (i) The rigid component of bacterial cell walls is a heteropolymer of alternating (1n4)-linked \_\_\_\_\_ and \_\_\_\_\_.
- (j) \_\_\_\_\_ and \_\_\_\_\_ are major structural elements of biological membranes.

2. Write down the structure of following components. 1×4=4.0

Arachidonic acid, N – acetylmuramic acid, phosphatidylcholine, Sphingomyeline.

3. What is the difference between polysaccharide and protein on the basis of assembly mechanism of this two type of polymers? 1.0